

CHILDHOOD LEAD EXPOSURE IN NEW JERSEY

ANNUAL REPORT

STATE FISCAL YEAR 2020
(July 1, 2019– June 30, 2020)

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GLOSSARY OF TERMS AND ACRONYMS

Abatement: Refers to long-term removal of an environmental lead hazard by a certified lead abatement contractor.

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 healthcare providers should test children at age one (within the age range six to 18 months) and again at 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.

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: Elevated blood lead level as defined as the threshold for public health intervention in New Jersey Administrative Code Title 8, Chapter 51 (N.J.A.C. 8:51). Beginning in SFY 2018, the threshold for public health intervention was lowered from any blood lead level greater than or equal to 10 µg/dL to 5 µg/dL.

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.

LeadTrax: The Department's secure, online central database used for childhood lead test results.

LHD: Local health department.

Population Data: Refers to 2010 data from the U.S. Census, unless otherwise specified. At the time of analysis 2020 census data had not been formalized.

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.

Screening Number/Percent: 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 2020 includes the period of July 1, 2019, to June 30, 2020.

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

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

Universal screening: Requires healthcare 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 for the annual report.

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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 (EBLLs), 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) 2020 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 of children born in New Jersey who turned three during SFY 2020 received at least one blood lead test in their lifetime. *From Chapter One, which describes blood lead screening of children less than 17 years of age in New Jersey.*
- A total of 78,847 children between the ages of six and 26 months were screened for lead in SFY 2020. This number is slightly higher than the 77,845 children aged six to 26 months who were tested in SFY 2019. *From Chapter Two, which describes blood lead screening of children by age group, geographic location, gender, and month of test.* The majority of screening occurred during July 2019 through March 2020 prior to the stay-at-home order issued during the coronavirus disease 2019 (COVID-19) pandemic.
- Blood lead level screening among children less than six years old during the COVID-19 pandemic shows the number of children aged <6 years who had BLL tests during January–May 2020 (42,362) was lower by 27.5% (16,074) than the number who had BLL tests during January–May 2019 (58,436) with the most significant proportional decrease (78.8%) occurred in April 2020.
- Between SFY 2018 and SFY 2020, the percentage of children less than six years of age with an EBLL decreased from 2.5 to 2.1% ug/dL. EBLL comparisons cannot be made with annual reports prior to SFY 2018, as the definition of EBLL was lowered from 10 ug/dL to 5 ug/dL in SFY 2018. This change strengthened 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 2020, 56% of children less than six years of age with an EBLL were male, and 44% were female. The peak month of screening for children less than six years of age was August and the highest month when EBLLs are detected was September. NJDOH compared the screening conducted during January–May 2019 and January–May 2020. During January–May 2020, 27.5% fewer children less than six years old had BLL screening compared with those during January–May 2019. The most significant proportional decrease (78.8%) occurred in April 2020. *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 less than six years of age with an EBLL at or above 5 ug/dL in SFY 2020 include two urban centers in Essex County and are as follows: East Orange (7.1%), Trenton (6.3%), Irvington (5.7%), South Brunswick (5.0%) and Plainfield (4.5%). 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). *From Chapter Three, which compares blood lead screening and elevated blood lead levels in large municipalities.*

- In SFY 2020, 812 environmental investigations were required by local health departments in response to new EBLL cases. Over half (60%) of those environmental investigations resulted in the local health department issuing an order of abatement. Of the 487 new abatements ordered in SFY 2020, the highest volume was in Newark City (66) and East Orange (28), and a total of 96% were completed. *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 Department. In SFY 2020, the Department continued its #kNOwLEAD prevention campaign to increase awareness of all lead hazards in homes, schools, and on the job; to educate parents about what they can do to prevent exposure, and to encourage parents to have their children tested. In addition, the Department mailed letters to pediatricians to raise awareness of New Jersey’s universal blood lead screening law, and, throughout the SFY, the Department provided grant support to local health departments to support screening, environmental investigations and nursing case management, and childhood lead partners, including regional coalitions, to support primary prevention, outreach, and education initiatives; Isles, to support the New Jersey Health Homes Training Center; and Green and Healthy Homes Initiative (GHHI) to provide technical assistance to public health and community partners.

The reporting period of this report includes the time during the COVID-19 Stay-at-home order ,March 19, 2020 – June 9, 2020 (1) in which all non-essential medical services were postponed. Having all children screened for at ages one and two ensures early identification and removal of lead exposures to children. Blood lead levels have decreased dramatically in NJ and nationally since the 1970s because of environmental improvements and better screening. It is critical that families reschedule any previously canceled pediatric appointments to ensure young children can be tested for lead. In the upcoming SFY 2021, the Department of Health will continue with its public health mission to prevent, screen, and intervene to ensure the health and safety of New Jersey children. The Department continues to work with medical offices, local health departments, and clinics that screen children for blood lead levels to ensure previously canceled pediatric appointments for lead screening and other services are rescheduled.

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 both 12 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 and 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.

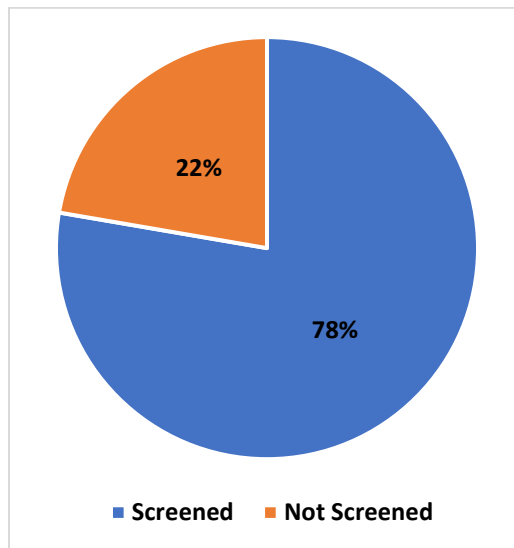
Figures 1a and 1b represent the percentage of children who were born in New Jersey and had at least one blood lead test performed by the year when they turned three or six, respectively, during SFY 2020. To generate statistics for these figures, each child is counted only once, regardless of the number of tests the child has received during this year. 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 during SFY 2020. 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 during SFY 2020 had at least one blood lead test in their lifetime. This represents a decrease of 12% compared to the same analysis included in the SFY 2019 report. The decline in screening is consistent with a CDC study (2) that found COVID-19 adversely affected the identification of children with EBLs due to the closure of many medical offices. In Figure 1b, 89% of children who were born in New Jersey and turned six during SFY 2020 had at least one blood lead test in their lifetime. This number reflects an increase compared to the SFY 2019 report, where 88% of children who turned six during SFY 2019 had at least one blood lead test in their lifetime.

Figure 2 represents annual trends in children six to 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, or during the range of six to 17 months of age, and a child's second blood lead test should be when they turn two, or during the range of 18 to 26 months. Given the requirement that children be tested twice, data generated for Figure 2 includes children who were tested more than once during the fiscal year. The number of tests is then divided by the total population of children six to 26 months, as reported in the 2000 or 2010 U.S. Census. This method generates screening rates that are less precise than using birth records, as ten-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 in the population or screening saturation, where children were already tested in the previous year.

Figure 1a

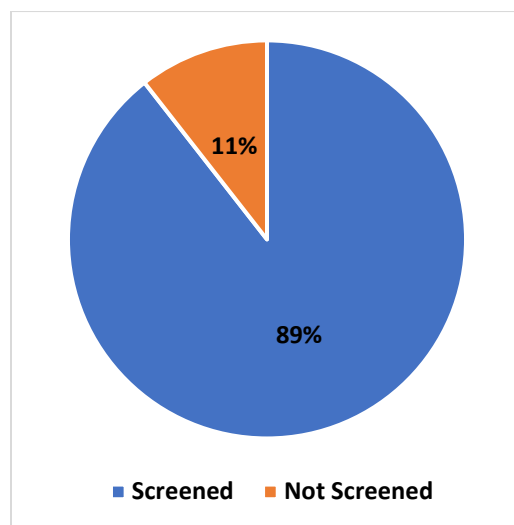
Percentage of Children* Who Turned Three (3) Years of Age During SFY 2020 and Had at Least One Blood Lead Test in their Lifetime



*Number of children born in New Jersey between July 1, 2016, and June 30, 2017 (n = 101,340)
Source: New Jersey Department of Health, Center for Health Statistics, New Jersey Birth Certificate Database

Figure 1b

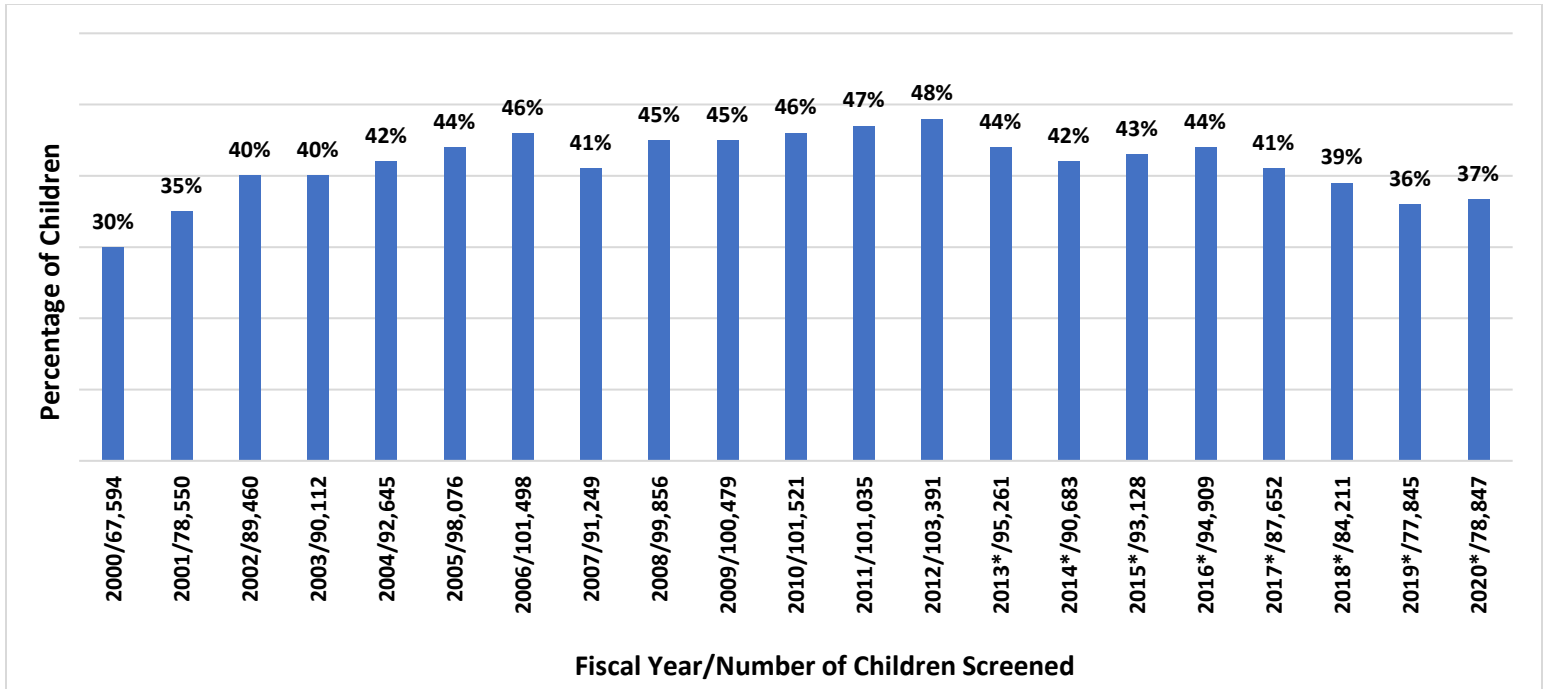
Percentage of Children* Who Turned Six (6) Years of Age During SFY 2020 and Had at Least One Blood Lead Test in their Lifetime



*Number of children born in New Jersey between July 1, 2013, and June 30, 2014 (n = 103,195)
Source: New Jersey Department of Health, Center for Health Statistics, New Jersey Birth Certificate Database

Figure 2

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



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 2019:

- 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

*Caution is advised when interpreting these numbers, as percentages calculated using the ten-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 have included duplicate records.

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. 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 that the sample was taken. To protect patient confidentiality, only municipalities with a population at or above 35,000 residents (i.e., large municipalities) are included in this report, as the proportion of children in the blood lead screening age range comprises a 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 ten-year census counts do not capture annual changes such as decreases in the population.

Tables 1 and 2 show screening numbers and results by county and large municipality, respectively, for children six to 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 2020, the average percentage of children six to 26 months screened by county was 33.5%, with a range of 22.2 % (Sussex) to 43.6% (Essex), and the average percentage of children six to 26 months with an EBLL by county was 1.9%, with a range of 0.3% (Ocean) to 4.5% (Salem). Table 2 shows that in SFY 2020, the average percentage of children six to 26 months screened in large municipalities was 34.1%, with a range of 15.6% (Manalapan Township) to 68.9 % (Lakewood), and the average percentage of children six to 26 months with an EBLL by large municipality was 1.6%, with a range of no cases (Berkeley, Egg Harbor, Freehold, Howell, Manchester, Washington Township in Gloucester County and Winslow) to 7.0% (Trenton).

Tables 3 and 4 display screening numbers and results by county and 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 2020, the average percentage of children less than six years of age screened by county was 18.2%, with a range of 9.7% (Gloucester) to 33.7% (Essex), and the average percentage of children less than six years of age with an EBLL by county was 2.1%, with a range of 0.4% (Sussex and Ocean) and 4.6% (Salem). Table 4 shows that in SFY 2020, the average percentage of children less than six years of age screened in large municipalities was 21.1%, with a range of 7.4% (Washington Township in Gloucester County) to 50.6% (Plainfield), and the average percentage of children less than six years of age with an EBLL by large municipality was 1.8%, with a range of no cases (Berkeley Manchester, Winslow and Washington Township in Gloucester County) to 7.1% (East Orange). Table 5 displays EBLs by county for all children.

Figures 3a and 3b compare 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 1 and 3 years of age comprise the largest category EBLs.

Figure 4a displays the percentage of children with an EBLL compared to children without an EBLL and shows that in SFY 2020, 98.0% of all children had a BLL less than 5 µg/dL. Figure 4b includes all children with an EBLL and compares categories of EBLs. In SFY 2020, 75.9% of children with an EBLL had a blood lead level in the lowest category of results (5-9 µg/dL), and 0.3% of children had a blood lead level in the highest category of results (at or above 45 µg/dL).

Figure 5 shows the gender distribution of children less than six years of age with an EBLL. In SFY 2020, 56% of children less than six years of age with an EBLL were male, and 44% were female.

Figure 6a shows the seasonal distribution of screening and percent of EBLL among children less than six years of age. Here, the highest percentage of children less than six years of age with an EBLL were screened between July and September, 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.

New in this Chapter:

Figure 6b describes BLL screening trends among children less than six years old during the coronavirus disease 2019 (COVID-19) pandemic; NJDOH compared the screening conducted during January–May 2019 and January–May 2020. The number of children aged <6 years who had BLL tests during January–May 2020 (42,362) was lower by 27.5% (16,074) than the number who had BLL tests during January–May 2019 (58,436). The number of children with BLL screening was lower during March, April, and May 2020 compared with the number with screening during the same period in 2019; the most significant proportional decrease (78.8%) occurred in April 2020. During the early months of the COVID-19 pandemic (March–May 2020), the number of children with BLL tests (16,211) decreased by 52.4% compared with the same period in 2019 (34,066).

Table 1

SFY 2020: Number of Children (six (6) to 26 months of age) by BLL and County of Residence

County	Total Children	% Screened*	BLL (µg/dL)	EBLL (µg/dL)							Total Screened
			<5	5-9	10-14	15-19	20-44	≥45	Total EBLL	% EBLL	
ATLANTIC	6,521	28.3%	1,816	25	3	1	2	0	31	1.7%	1,847
BERGEN	19,955	35.6%	7,029	55	14	3	4	0	76	1.1%	7,105
BURLINGTON	10,166	32.6%	3,277	28	6	0	2	0	36	1.1%	3,313
CAMDEN	13,215	30.9%	4,027	42	6	3	1	0	52	1.3%	4,079
CAPE MAY	1,822	26.9%	479	8	3	0	0	0	11	2.2%	490
CUMBERLAND	4,368	31.7%	1,331	44	8	2	0	0	54	3.9%	1,385
ESSEX	21,569	43.6%	9,109	226	25	17	17	3	288	3.1%	9,397
GLOUCESTER	6,862	20.9%	1,415	15	2	0	0	0	17	1.2%	1,432
HUDSON	17,288	42.4%	7,159	134	22	2	8	0	166	2.3%	7,325
HUNTERDON	2,316	42.9%	983	7	2	1	0	0	10	1.0%	993
MERCER	8,591	36.8%	3,068	72	13	5	6	0	96	3.0%	3,164
MIDDLESEX	19,965	31.0%	6,068	78	18	13	6	0	115	1.9%	6,183
MONMOUTH	13,371	25.0%	3,310	28	3	1	0	0	32	1.0%	3,342
MORRIS	10,700	35.7%	3,790	26	5	1	2	0	34	0.9%	3,824
OCEAN	15,532	43.5%	6,730	19	4	0	0	0	23	0.3%	6,753
PASSAIC	13,727	42.4%	5,654	131	27	7	3	0	168	2.9%	5,822
SALEM	1,549	24.3%	360	12	4	1	0	0	17	4.5%	377
SOMERSET	7,581	34.4%	2,577	23	3	3	1	0	30	1.2%	2,607
SUSSEX	3,099	22.2%	683	3	1	0	0	0	4	0.6%	687
UNION	14,148	44.4%	6,128	113	24	5	5	0	147	2.3%	6,275
WARREN	2,382	28.3%	656	15	0	1	0	1	17	2.5%	673
Unknown address	N/A	N/A	1,774	0	0	0	0	0	-	0.0%	1,774
Total	214,727	36.7%	77,423	1,104	193	66	57	4	1,424	1.8%	78,847

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 2020

Total EBLL = Frequency of Children 6-26 Months of Age with an EBLL ≥ 5µg/dL Reported in SFY 2020

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 ten-year census counts do not capture annual changes in the population.

Table 2

SFY 2020: Number of Children (six (6) to 26 months of age) by BLL and Large Municipality

Municipality	Total Children	% Screened*	BLL (µg/dL)	EBLL (µg/dL)							Total Screened
			<5	5-9	10-14	15-19	20-44	≥45	Total EBLL	% EBLL	
ATLANTIC CITY	1,249	33.0%	394	14	2	1	1	0	18	4.4%	412
BAYONNE	1,528	47.8%	709	18	3	0	1	0	22	3.0%	731
BELLEVILLE	869	38.0%	328	1	0	0	1	0	2	0.6%	330
BERKELEY	509	26.3%	134	0	0	0	0	0	0	0.0%	134
BLOOMFIELD	1,224	40.0%	483	6	0	0	0	1	7	1.4%	490
BRICK	1,531	22.0%	335	2	0	0	0	0	2	0.6%	337
BRIDGEWATER	978	39.1%	380	2	0	0	0	0	2	0.5%	382
CAMDEN	2,838	33.0%	915	18	2	1	0	0	21	2.2%	936
CHERRY HILL	1,449	33.5%	483	1	0	1	0	0	2	0.4%	485
CLIFTON	2,123	42.6%	889	11	5	0	0	0	16	1.8%	905
EAST BRUNSWICK	860	32.8%	280	1	0	1	0	0	2	0.7%	282
EAST ORANGE	1,916	38.1%	686	33	5	2	4	0	44	6.0%	730
EDISON	2,560	29.9%	741	18	1	2	3	0	24	3.1%	765
EGG HARBOR	1,038	30.0%	311	0	0	0	0	0	0	0.0%	311
ELIZABETH	3,943	45.4%	1,745	35	7	2	1	0	45	2.5%	1,790
EVESHAM	1,016	27.1%	272	2	1	0	0	0	3	1.1%	275
EWING	600	39.5%	235	1	1	0	0	0	2	0.8%	237
FORT LEE	725	34.3%	247	2	0	0	0	0	2	0.8%	249
FRANKLIN (Somerset County)	1,759	28.8%	501	6	0	0	0	0	6	1.2%	507
FREEHOLD	652	16.4%	107	0	0	0	0	0	0	0.0%	107
GALLOWAY	724	28.2%	203	1	0	0	0	0	1	0.5%	204
GLOUCESTER	1,520	26.4%	399	2	1	0	0	0	3	0.7%	402
HACKENSACK	1,118	36.0%	398	1	3	0	0	0	4	1.0%	402
HAMILTON (Mercer County)	1,814	38.3%	689	4	1	0	0	0	5	0.7%	694
HILLSBOROUGH	866	29.9%	258	1	0	0	0	0	1	0.4%	259
HOBOKEN	1,467	58.1%	848	5	0	0	0	0	5	0.6%	853
HOWELL	1,125	21.1%	237	0	0	0	0	0	0	0.0%	237
IRVINGTON	1,692	47.8%	766	37	2	2	2	0	43	5.3%	809
JACKSON	1,100	39.5%	433	1	0	0	0	0	1	0.2%	434
JERSEY CITY	7,192	44.5%	3,115	62	13	2	5	0	82	2.6%	3,197
KEARNY	895	33.6%	298	2	0	0	1	0	3	1.0%	301
LAKESWOOD	6,556	68.9%	4,499	14	3	0	0	0	17	0.4%	4,516
LINDEN	911	42.2%	381	3	0	0	0	0	3	0.8%	384
MANALAPAN	778	15.6%	120	1	0	0	0	0	1	0.8%	121
MANCHESTER	448	17.6%	79	0	0	0	0	0	0	0.0%	79

Municipality	Total Children	% Screened*	BLL (µg/dL)	EBLL (µg/dL)							Total Screened
			<5	5-9	10-14	15-19	20-44	≥45	Total EBLL	% EBLL	
MARLBORO	767	15.6%	119	1	0	0	0	0	1	0.8%	120
MIDDLETOWN	1,444	26.1%	376	1	0	0	0	0	1	0.3%	377
MONROE (Gloucester County)	898	24.5%	219	1	0	0	0	0	1	0.5%	220
MONROE (Middlesex County)	655	30.4%	198	1	0	0	0	0	1	0.5%	199
MONTCLAIR	869	33.1%	281	5	0	1	1	0	7	2.4%	288
MOUNT LAUREL	886	32.3%	284	2	0	0	0	0	2	0.7%	286
NEW BRUNSWICK	1,573	38.1%	575	18	4	3	0	0	25	4.2%	600
NEWARK	8,382	49.6%	4,014	108	15	12	5	1	141	3.4%	4,155
NORTH BERGEN	1,498	35.1%	517	8	1	0	0	0	9	1.7%	526
NORTH BRUNSWICK	1,220	28.0%	336	3	3	0	0	0	6	1.8%	342
OLD BRIDGE	1,478	21.6%	317	2	0	0	0	0	2	0.6%	319
PARSIPPANY-TROY HILLS	1,207	30.6%	364	4	0	0	1	0	5	1.4%	369
PASSAIC	2,767	44.2%	1182	36	5	0	1	0	42	3.4%	1,224
PATERSON	4,632	50.1%	2,224	75	15	4	1	0	95	4.1%	2,319
PENNSAUKEN	845	32.4%	272	1	1	0	0	0	2	0.7%	274
PERTH AMBOY	1,584	45.1%	702	8	2	1	1	0	12	1.7%	714
PISCATAWAY	1,361	27.0%	361	4	2	1	0	0	7	1.9%	368
PLAINFIELD	1,628	64.3%	984	46	11	2	4	0	63	6.0%	1,047
SAYREVILLE	1,137	24.5%	277	1	0	0	0	0	1	0.4%	278
SOUTH BRUNSWICK	935	20.5%	186	4	1	0	1	0	6	3.1%	192
TEANECK	1,075	29.1%	308	5	0	0	0	0	5	1.6%	313
TOMS RIVER	1,816	30.7%	557	0	1	0	0	0	1	0.2%	558
TRENTON	2,786	40.2%	1,041	57	10	5	6	0	78	7.0%	1,119
UNION CITY	1,880	32.9%	605	11	2	0	0	0	13	2.1%	618
UNION	1,250	39.0%	480	6	1	0	0	0	7	1.4%	487
VINELAND	1,729	31.2%	529	6	4	1	0	0	11	2.0%	540
WASHINGTON (Gloucester County)	900	19.2%	173	0	0	0	0	0	0	0.0%	173
WAYNE	995	40.8%	403	3	0	0	0	0	3	0.7%	406
WEST NEW YORK	1,523	36.1%	538	10	2	0	0	0	12	2.2%	550
WEST ORANGE	1,263	32.1%	394	9	1	0	1	0	11	2.7%	405
WINSLOW	1,122	22.3%	250	0	0	0	0	0	0	0.0%	250
WOODBIDGE	2,495	31.1%	764	9	1	2	1	0	13	1.7%	777

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 2020

Total EBLL = Frequency of Children 6-26 Months of Age with an EBLL ≥ 5µg/dL Reported in SFY 2020

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 ten-year census counts do not capture annual changes in the population.

Table 3

SFY 2020: Number of Children (<6 years of age) by BLL and County of Residence

County	Total Children	% Screened*	BLL (µg/dL)	EBLL (µg/dL)						Total EBLL	% EBLL	Total Screened
			<5	5-9	10-14	15-19	20-44	≥45				
ATLANTIC	19,909	15.6%	3,040	46	9	2	2	1	60	1.9%	3,100	
BERGEN	61,192	19.2%	11,599	93	25	5	6	0	129	1.1%	11,728	
BURLINGTON	31,546	14.3%	4,464	46	10	0	3	0	59	1.3%	4,523	
CAMDEN	40,195	14.0%	5,546	74	11	6	3	0	94	1.7%	5,640	
CAPE MAY	5,423	12.5%	665	11	3	0	0	0	14	2.1%	679	
CUMBERLAND	12,963	20.9%	2,613	79	14	5	2	0	100	3.7%	2,713	
ESSEX	64,591	33.7%	20,995	580	100	36	43	5	764	3.5%	21,759	
GLOUCESTER	21,059	9.7%	2,014	28	3	1	0	0	32	1.6%	2,046	
HUDSON	49,759	29.8%	14,485	248	51	11	14	0	324	2.2%	14,809	
HUNTERDON	7,484	14.8%	1,097	9	3	2	0	0	14	1.3%	1,111	
MERCER	26,052	20.7%	5,195	143	29	11	12	0	195	3.6%	5,390	
MIDDLESEX	60,249	19.3%	11,352	176	37	20	20	1	254	2.2%	11,606	
MONMOUTH	42,404	12.3%	5,160	54	7	1	3	0	65	1.2%	5,225	
MORRIS	33,493	16.1%	5,346	40	11	2	2	0	55	1.0%	5,401	
OCEAN	46,657	22.5%	10,438	38	7	0	2	0	47	0.4%	10,485	
PASSAIC	41,179	29.5%	11,784	280	51	15	8	1	355	2.9%	12,139	
SALEM	4,625	12.2%	539	19	5	2	0	0	26	4.6%	565	
SOMERSET	23,622	15.8%	3,677	42	5	3	2	0	52	1.4%	3,729	
SUSSEX	9,701	9.9%	953	3	1	0	0	0	4	0.4%	957	
UNION	43,085	28.1%	11,809	235	47	9	17	1	309	2.5%	12,118	
WARREN	7,434	11.4%	822	24	0	2	1	1	28	3.3%	850	
Unknown address	N/A	N/A	3,023	0	0	0	0	0	-	0.0%	3,023	
Total	652,622	21.4%	136,616	2,268	429	133	140	10	2,980	2.1%	139,596	

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 2020

Total EBLL = Frequency of Children 0-72 Months of Age with an EBLL ≥ 5ug/dL Reported in SFY 2020

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 ten-year census counts do not capture annual changes in the population.

Table 4

SFY 2020: Number of Children (<6 years of age) by BLL and Large Municipality

Municipality	Total Children	% Screened*	BLL (µg/dL)	EBLL (µg/dL)						Total EBLL	% EBLL	Total Screened
			<5	5-9	10-14	15-19	20-44	≥45				
ATLANTIC CITY	3,677	22.0%	773	28	5	2	1	0	36	4.4%	809	
BAYONNE	4,576	32.6%	1,464	22	3	1	1	0	27	1.8%	1,491	
BELLEVILLE	2,601	29.3%	753	6	1	0	1	0	8	1.1%	761	
BERKELEY	1,565	13.7%	215	0	0	0	0	0	0	0.0%	215	
BLOOMFIELD	3,575	27.9%	985	11	0	1	0	1	13	1.3%	998	
BRICK	4,558	10.9%	495	2	0	0	0	0	2	0.4%	497	
BRIDGEWATER	3,052	16.3%	488	5	2	0	1	0	8	1.6%	496	
CAMDEN	8,525	18.0%	1,493	35	5	2	1	0	43	2.8%	1,536	
CHERRY HILL	4,588	13.3%	607	2	0	1	0	0	3	0.5%	610	
CLIFTON	6,187	27.6%	1,677	24	7	0	0	0	31	1.8%	1,708	
EAST BRUNSWICK	2,725	16.8%	454	1	0	1	2	0	4	0.9%	458	
EAST ORANGE	5,534	32.9%	1,689	99	16	3	9	2	129	7.1%	1,818	
EDISON	7,774	19.4%	1,455	35	9	5	5	0	54	3.6%	1,509	
EGG HARBOR	3,341	12.7%	422	2	0	0	0	0	2	0.5%	424	
ELIZABETH	11,792	35.3%	4,038	95	18	4	7	0	124	3.0%	4,162	
EVESHAM	3,117	10.4%	322	2	1	0	0	0	3	0.9%	325	
EWING	1,797	21.5%	377	8	1	1	0	0	10	2.6%	387	
FORT LEE	2,171	20.9%	451	3	0	0	0	0	3	0.7%	454	
FRANKLIN (Somerset County)	5,182	15.8%	811	9	0	0	0	0	9	1.1%	820	
FREEHOLD	2,156	8.6%	185	1	0	0	0	0	1	0.5%	186	
GALLOWAY	2,240	14.1%	314	2	0	0	0	0	2	0.6%	316	
GLOUCESTER	4,647	11.2%	515	5	1	0	0	0	6	1.2%	521	
HACKENSACK	3,223	24.6%	781	7	4	1	0	0	12	1.5%	793	
HAMILTON (Mercer County)	5,480	20.8%	1,122	13	2	1	1	0	17	1.5%	1,139	
HILLSBOROUGH	2,736	12.5%	338	3	0	0	0	0	3	0.9%	341	
HOBOKEN	3,779	27.9%	1,049	6	0	0	0	0	6	0.6%	1,055	
HOWELL	3,591	10.7%	382	1	0	0	0	0	1	0.3%	383	
IRVINGTON	4,993	43.7%	2,056	96	18	3	7	0	124	5.7%	2,180	
JACKSON	3,649	20.7%	753	3	0	0	0	0	3	0.4%	756	
JERSEY CITY	20,393	31.5%	6,231	140	35	10	10	0	195	3.0%	6,426	
KEARNY	2,681	27.5%	726	7	1	0	2	0	10	1.4%	736	
LAKEWOOD	18,872	36.3%	6,826	25	5	0	2	0	32	0.5%	6,858	
LINDEN	2,726	29.2%	789	6	1	0	0	1	8	1.0%	797	
MANALAPAN	2,541	8.5%	215	1	0	0	0	0	1	0.5%	216	
MANCHESTER	1,372	10.4%	143	0	0	0	0	0	0	0.0%	143	
MARLBORO	2,606	8.7%	223	3	0	0	1	0	4	1.8%	227	

Municipality	Total Children	% Screened*	BLL (µg/dL)	EBLL (µg/dL)							Total Screened
			<5	5-9	10-14	15-19	20-44	≥45	Total EBLL	% EBLL	
MIDDLETOWN	4,615	10.4%	481	1	0	0	0	0	1	0.2%	482
MONROE (Gloucester County)	2,794	11.7%	326	1	0	0	0	0	1	0.3%	327
MONROE (Middlesex County)	2,082	14.7%	304	2	0	0	1	0	3	1.0%	307
MONTCLAIR	2,701	16.9%	445	7	2	1	1	0	11	2.4%	456
MOUNT LAUREL	2,705	13.4%	359	4	0	0	0	0	4	1.1%	363
NEW BRUNSWICK	4,753	22.2%	1,014	33	4	3	2	1	43	4.1%	1,057
NEWARK	24,831	45.1%	10,821	285	56	24	21	1	387	3.5%	11,208
NORTH BERGEN	4,473	26.0%	1,152	10	1	0	0	0	11	0.9%	1,163
NORTH BRUNSWICK	3,502	19.4%	669	7	5	0	0	0	12	1.8%	681
OLD BRIDGE	4,548	12.6%	565	8	1	1	0	0	10	1.7%	575
PARSIPPANY-TROY HILLS	3,671	15.3%	550	9	2	0	1	0	12	2.1%	562
PASSAIC	8,226	37.7%	3,031	62	9	0	2	0	73	2.4%	3,104
PATERSON	13,987	37.9%	5,085	176	28	11	4	0	219	4.1%	5,304
PENNSAUKEN	2,696	14.9%	396	5	1	0	1	0	7	1.7%	403
PERTH AMBOY	4,756	37.1%	1,742	16	2	2	3	0	23	1.3%	1,765
PISCATAWAY	3,903	17.2%	654	9	4	2	1	0	16	2.4%	670
PLAINFIELD	4,961	50.6%	2,395	84	18	4	7	0	113	4.5%	2,508
SAYREVILLE	3,338	15.9%	523	6	1	0	1	0	8	1.5%	531
SOUTH BRUNSWICK	3,130	10.2%	304	14	1	0	1	0	16	5.0%	320
TEANECK	3,142	15.5%	481	6	0	0	0	0	6	1.2%	487
TOMS RIVER	5,617	16.8%	939	3	1	0	0	0	4	0.4%	943
TRENTON	7,998	30.0%	2,246	108	22	9	11	0	150	6.3%	2,396
UNION	3,701	22.2%	809	9	2	0	1	0	12	1.5%	821
UNION CITY	5,742	27.6%	1,562	22	3	0	0	0	25	1.6%	1,587
VINELAND	5,058	19.8%	984	10	4	1	0	0	15	1.5%	999
WASHINGTON (Gloucester County)	2,968	7.4%	221	0	0	0	0	0	0	0.0%	221
WAYNE	3,105	18.0%	553	6	1	0	0	0	7	1.3%	560
WEST NEW YORK	4,258	29.0%	1,219	14	3	0	0	0	17	1.4%	1,236
WEST ORANGE	3,635	20.7%	730	18	1	1	1	0	21	2.8%	751
WINSLOW	3,336	10.3%	345	0	0	0	0	0	0	0.0%	345
WOODBIDGE	7,326	20.2%	1,458	19	2	2	1	0	24	1.6%	1,482

Total Screened = Frequency of Children < 17 Years of Age with a Blood Lead Test Reported in SFY 2020
Total EBLL = Frequency of Children < 17 Years of Age with an EBLL ≥ 5µg/dL Reported in SFY 2020
Percent EBLL = (Total EBLL / Total Screened) * 100

Table 5

SFY 2020: Number of Children by BLL and County of Residence

County	BLL (µg/dL)	EBLL (µg/dL)						Total EBLL	% EBLL	Total Screened
	<5	5-9	10-14	15-19	20-44	≥45				
ATLANTIC	3,294	54	10	2	2	1	69	2.1%	3,363	
BERGEN	13,041	106	27	6	8	0	147	1.1%	13,188	
BURLINGTON	4,727	52	11	1	3	0	67	1.4%	4,794	
CAMDEN	5,926	79	12	7	4	0	102	1.7%	6,028	
CAPE MAY	715	11	4	0	0	0	15	2.1%	730	
CUMBERLAND	2,832	82	16	6	3	0	107	3.6%	2,939	
ESSEX	27,564	656	110	42	51	5	864	3.0%	28,428	
GLOUCESTER	2,136	32	4	1	0	0	37	1.7%	2,173	
HUDSON	17,606	278	54	12	14	0	358	2.0%	17,964	
HUNTERDON	1,147	10	3	2	0	0	15	1.3%	1,162	
MERCER	6,598	154	30	12	12	1	209	3.1%	6,807	
MIDDLESEX	13,987	206	44	22	22	1	295	2.1%	14,282	
MONMOUTH	6,038	64	9	1	4	0	78	1.3%	6,116	
MORRIS	5,876	45	16	3	2	0	66	1.1%	5,942	
OCEAN	11,363	45	7	2	2	0	56	0.5%	11,419	
PASSAIC	13,676	302	56	18	9	1	386	2.7%	14,062	
SALEM	559	21	5	2	0	0	28	4.8%	587	
SOMERSET	4,265	47	7	4	4	0	62	1.4%	4,327	
SUSSEX	1,045	4	1	0	0	0	5	0.5%	1,050	
UNION	14,364	267	55	13	17	1	353	2.4%	14,717	
WARREN	884	25	0	2	1	1	29	3.2%	913	
Unknown address	3,457	0	0	0	0	0	0	0.0%	3,457	
Total	161,100	2,540	481	158	158	11	3,348	2.0%	164,448	

Total Screened = Frequency of Children < 17 Years of Age with a Blood Lead Test Reported in SFY 2020

Total EBLL = Frequency of Children < 17 Years of Age with an EBLL ≥ 5µg/dL Reported in SFY 2020

Percent EBLL = (Total EBLL / Total Screened) * 100

Figure 3a

**SFY 2020: Frequency of Children with an EBLL by Age
(n=3,348)**

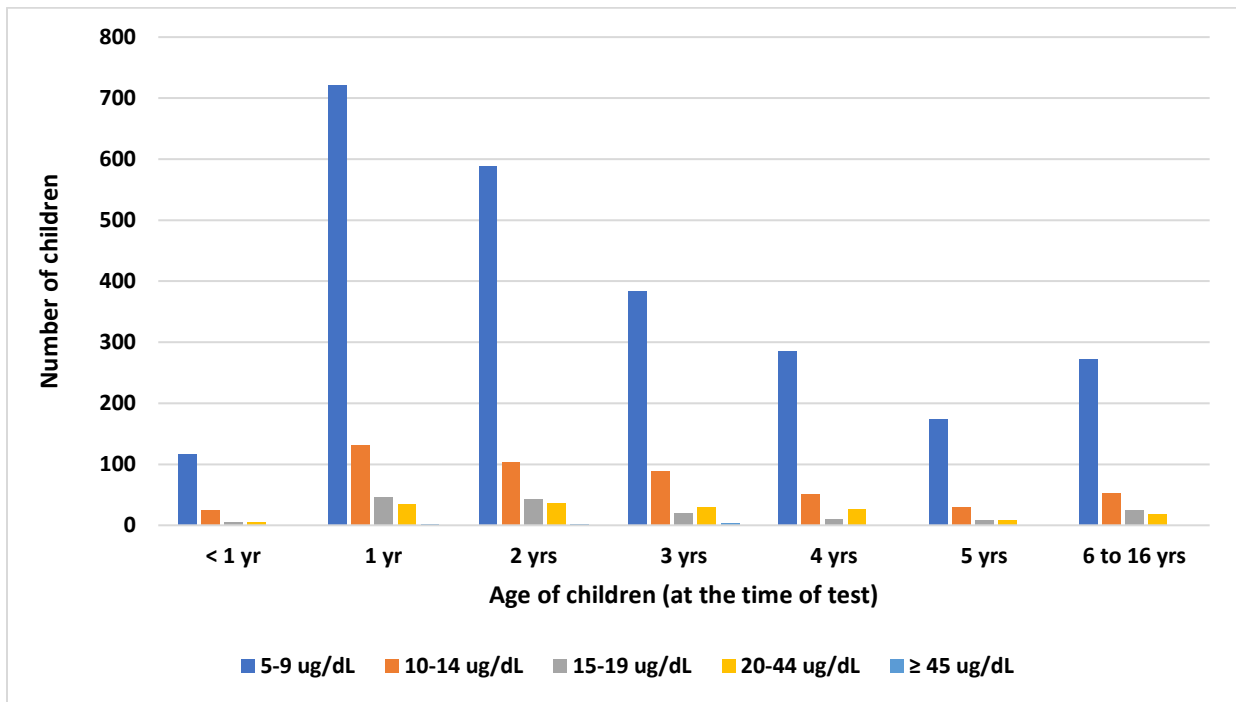


Figure 3b

**SFY 2020: Frequency of Children without an EBLL by Age
(n=161,100)**

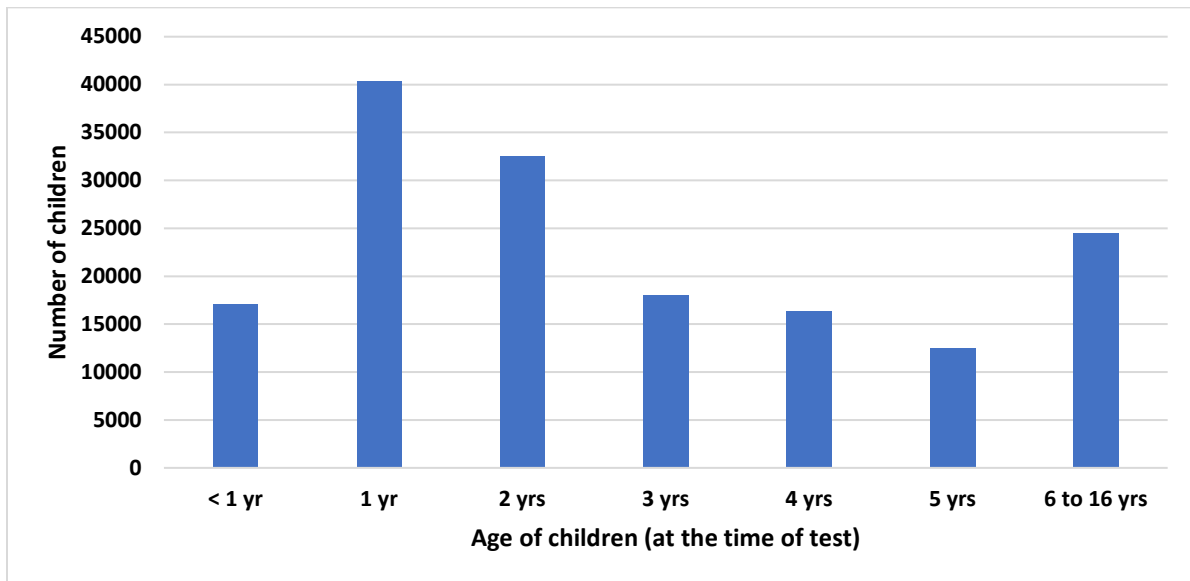


Figure 4a

**SFY2020: Percentage of Children with an EBLL
(n=3,348)**

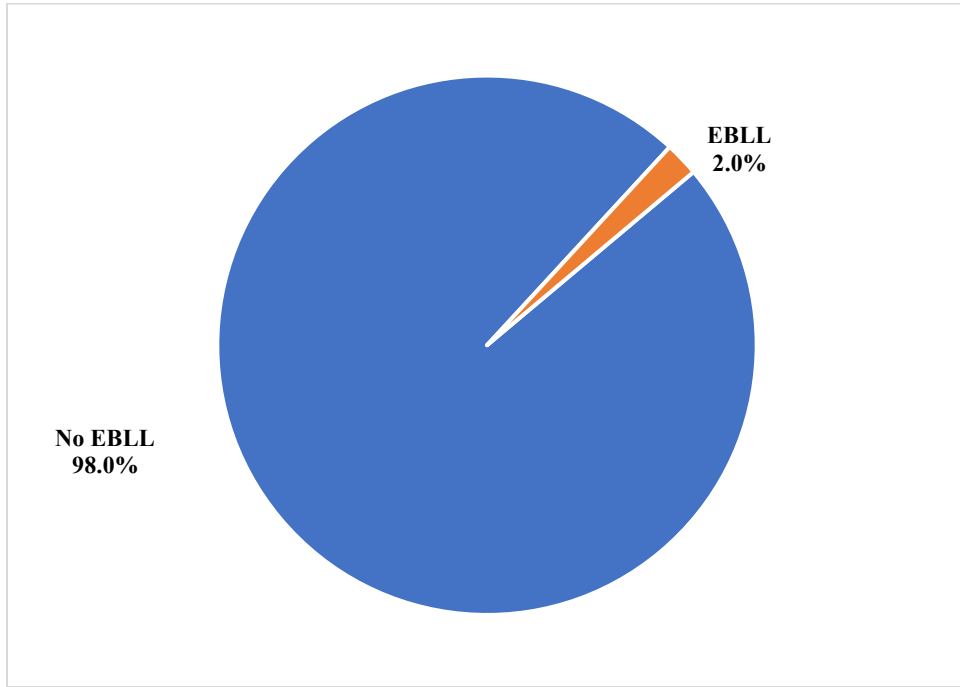


Figure 4b

**SFY 2020: Percentage of Children by Category of EBLL
(n=3,348)**

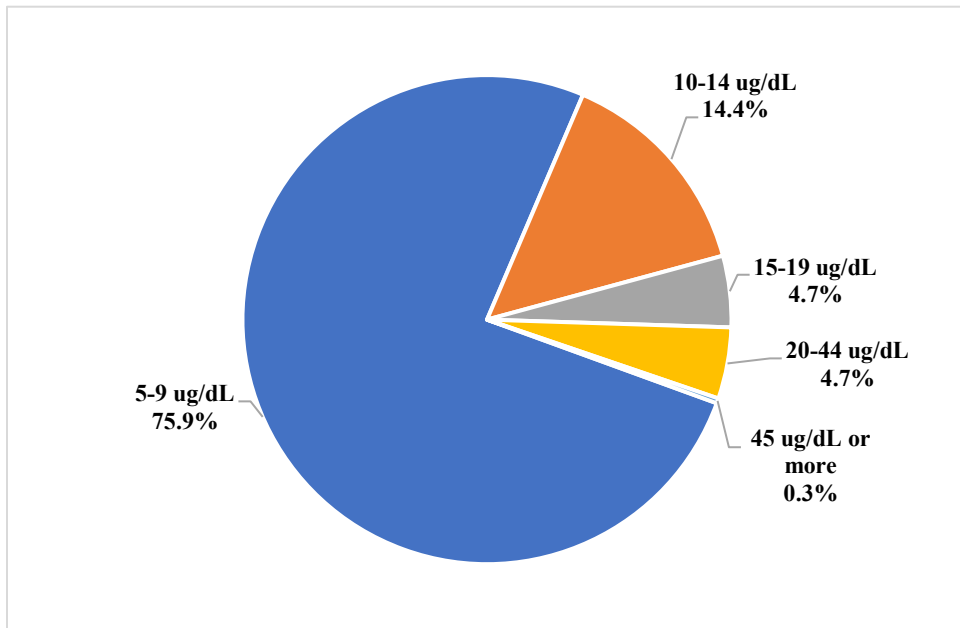


Figure 5

SFY 2020: Percentage of Children Less Than Six Years of Age with an EBLL by Gender (n=2,980)

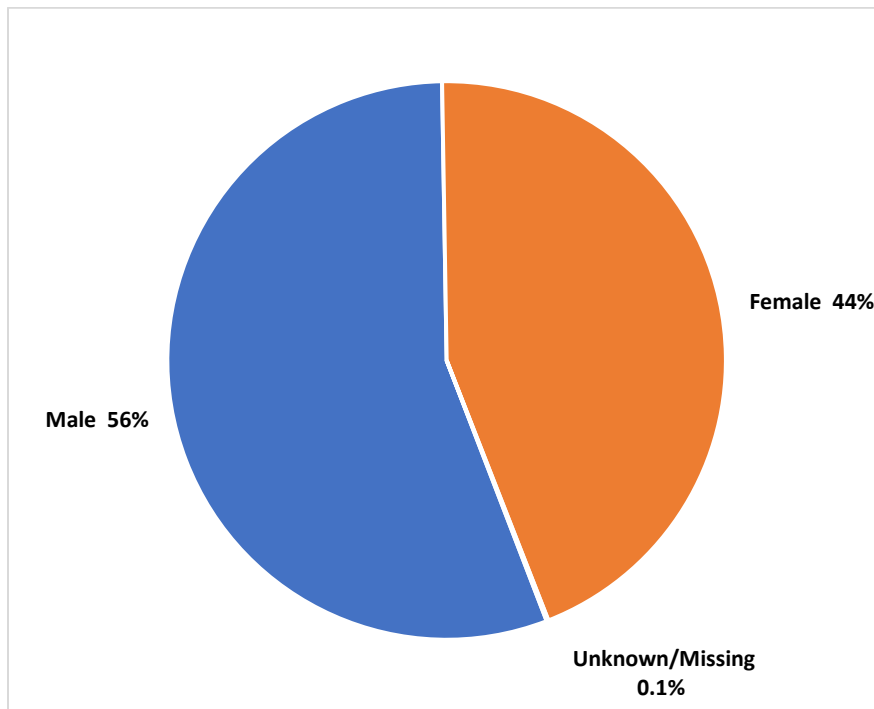


Figure 6a

SFY 2020: Total Children Screened and Percentage of EBLL for Children Less Than Six Years of Age by Month of Test (n=2,980)

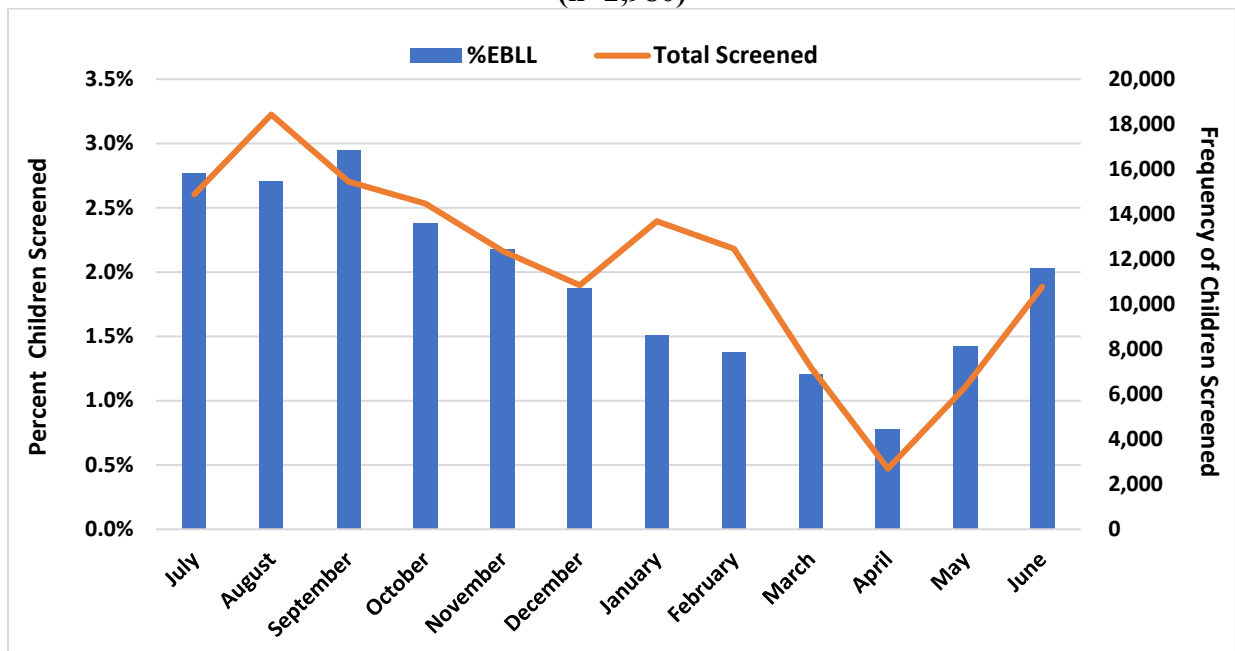
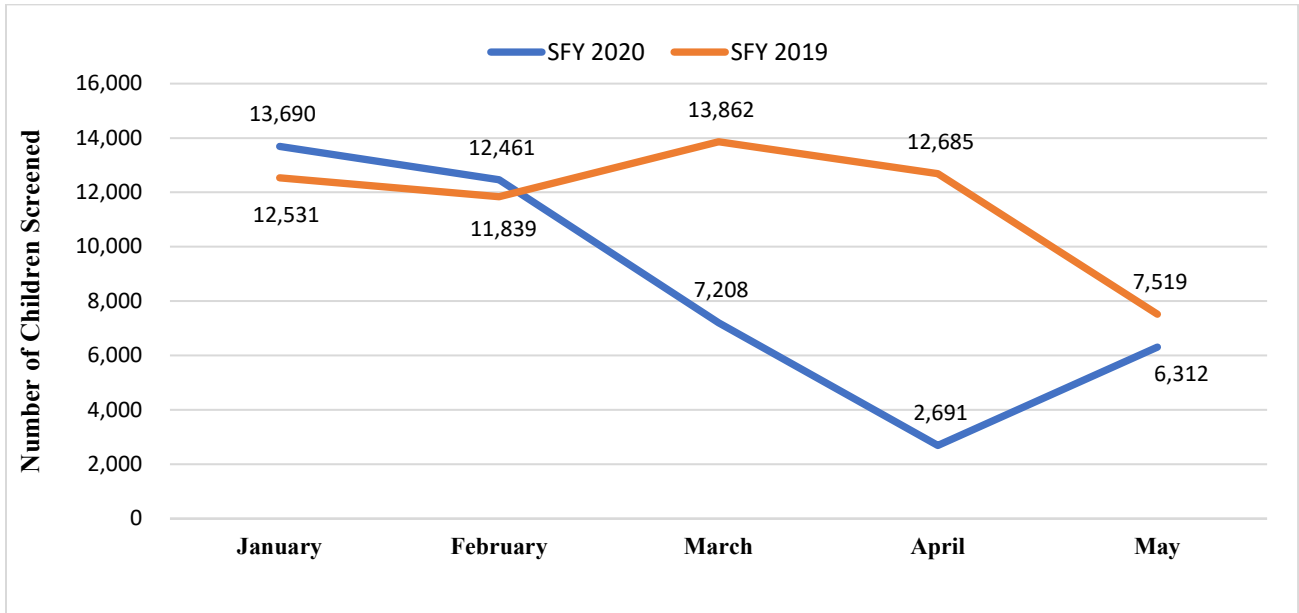


Figure 6b

**SFY 2020: Number of Children Aged <6 years Who Screened for BLL,
by Month, 2019–2020**



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 of the large municipalities and how they rank according to attributes such as the population of children less than six years of age, percentage of children screened in SFY 2020 and percent EBLs.

Many of New Jersey's large municipalities also have the highest number of children less than six years of age. Table 6 ranks the top ten large municipalities by the largest population of children less than six years of age (based on data from the 2010 U.S. Census). The City of Newark has the largest population of children less 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 age six, Table 7 ranks the top ten large municipalities by the highest percentage of children less than six years of age who were screened in SFY 2020. Plainfield (51%) had the highest percentage of children less than six years of age screened in SFY 2020, followed by Newark (45%), Irvington (44%), and Paterson (38%).

Table 8 and Figure 7 rank the top large municipalities by the highest percentage of children less than six years of age with an EBL at or above 5 $\mu\text{g}/\text{dL}$. The five large municipalities with the highest percentage of children with an EBL at or above 5 $\mu\text{g}/\text{dL}$ in SFY 2020 include East Orange (7.1%), Trenton (6.3%), Irvington (5.7%), South Brunswick (5.0%), and Plainfield (4.5%). While the percentage of children with an EBL 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 Ten Large Municipalities Ranked by
Largest Population of Children Less 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

Table 7

**Top Ten Large Municipalities Ranked by
Highest Percentage of Children Less Than Six Years of Age Screened in SFY 2020**

Municipality (County)	% Children < 6 Years Screened for Lead
Plainfield (Union)	51%
Newark (Essex)	45%
Irvington (Essex)	44%
Paterson (Passaic)	38%
City of Passaic (Passaic)	38%
Perth Amboy (Middlesex)	37%
Lakewood (Ocean)	36%
Elizabeth (Union)	35%
East Orange (Essex)	33%
Bayonne (Hudson)	33%

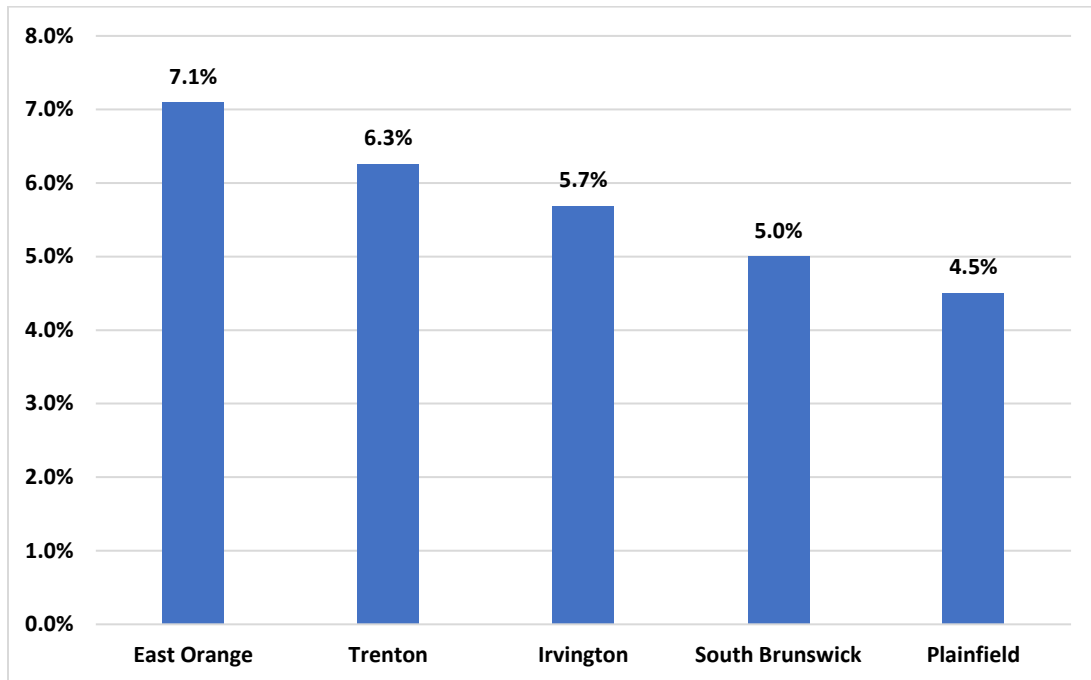
Table 8

Top Ten Large Municipalities Ranked by Highest Percentage of Children Less Than Six (6) Years of Age with an EBLL in SFY 2020

Municipality (County)	% Children < 6 Years with an EBLL
East Orange (Essex)	7.1%
Trenton (Mercer)	6.3%
Irvington (Essex)	5.7%
South Brunswick (Middlesex)	5.0%
Plainfield (Union)	4.5%
Atlantic City (Atlantic)	4.4%
Paterson (Passaic)	4.1%
New Brunswick (Middlesex)	4.1%
Edison (Middlesex)	3.6%
Newark (Essex)	3.5%

Figure 7

Top Five Large Municipalities with the Highest Percentage of Children Less Than Six (6) Years of Age with an EBLL in SFY 2020



CHAPTER FOUR

ENVIRONMENTAL INVESTIGATIONS BY LOCAL HEALTH DEPARTMENTS

N.J.A.C. 8:51 requires LHDs to investigate reported cases of EBLs that meet or exceed the threshold for public health intervention within their jurisdiction and to order the abatement of lead hazards identified in the course of 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 child care center, the home of a relative or other 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.

In addition to environmental investigations, for all reported cases of EBLs 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 EBLs and the steps that he or she 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. Statistics describing nursing case management are not included in the annual report.

The data listed in this chapter reflects the frequency and results of environmental investigations, as reported by LHDs. The data are accurate to the extent that LHDs enter complete and timely information in LeadTrax before the date by which this report was generated. Furthermore, open investigations/abatement may reflect the fact that it can take several years to complete the abatement process for a property where lead hazards are identified. The length of time between the initial report of an EBL and the completion of the abatement process can be affected by 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.

Table 9 shows environmental case activity by county. In SFY 2020, Essex County had the highest number of environmental case referrals (277), followed by Union (110), Middlesex (98), and Passaic (98). In contrast, Sussex had the fewest number of environmental case referrals (0), followed by Cape May (3), Hunterdon (4), and Warren (9). As shown in Table 9, nearly half of the cases referred for environmental investigation resulted in a new order of abatement, where 487 new abatements were issued throughout New Jersey (all counties except Hunterdon and Sussex) in SFY 2020.

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 environmental case referrals (139) in SFY 2020, followed by the Jersey City Department of Health & Human Services (64) and the City of Paterson Division of Health (61).

Table 9

SFY 2020: Environmental Case Activity Status by County

County	Cases Referred*	Investigation Required**	% Investigation Required	Investigation Completed***	% Investigation Completed	Abatement Required	Abatement Completed	% Abatement Completed
ATLANTIC	23	17	74%	13	76%	13	13	100%
BERGEN	52	52	100%	48	92%	38	37	97%
BURLINGTON	20	18	90%	17	94%	12	7	58%
CAMDEN	21	21	100%	15	71%	15	15	100%
CAPE MAY	3	3	100%	2	67%	1	0	0%
CUMBERLAND	27	27	100%	19	70%	22	19	86%
ESSEX	277	244	88%	191	78%	135	127	94%
GLOUCESTER	12	12	100%	11	92%	10	10	100%
HUDSON	91	66	73%	54	82%	42	41	98%
HUNTERDON	4	0	0%	0	N/A	0	0	N/A
MERCER	64	36	56%	32	89%	20	14	70%
MIDDLESEX	98	51	52%	40	78%	30	28	93%
MONMOUTH	38	30	79%	25	83%	21	14	67%
MORRIS	25	18	72%	9	50%	7	5	71%
OCEAN	17	9	53%	6	67%	5	4	80%
PASSAIC	98	84	86%	58	69%	44	41	93%
SALEM	9	9	100%	9	100%	7	6	86%
SOMERSET	21	16	76%	13	81%	13	11	85%
SUSSEX	0	0	N/A	0	N/A	0	0	N/A
UNION	110	93	85%	71	76%	51	38	75%
WARREN	9	6	67%	3	50%	1	1	100%
TOTAL	1,019	812	80%	636	78%	487	431	89%

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

**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.

Data for this table are based on case updates entered in LeadTrax as of December 9, 2020. If a local health department completed an investigation or abatement but did not update data in LeadTrax, the investigation or abatement will not be counted as completed in this report.

Table 10

SFY 2020: Environmental Case Activity by Local Health Department

Local Health Department	Cases Referred*	Investigation Required**	Investigation Completed***	% Investigation Completed	Abatement Required	Abatement Completed	% Abatement Completed
ATLANTIC CITY HEALTH DEPARTMENT	8	2	0	0%	0	0	N/A
ATLANTIC COUNTY HEALTH DEPARTMENT	15	15	13	87%	13	13	100%
BAYONNE DEPARTMENT OF HEALTH	6	5	4	80%	2	2	100%
BERGEN COUNTY DEPARTMENT OF HEALTH SERVICES	18	18	18	100%	13	13	100%
BERGENFIELD HEALTH DEPARTMENT	1	1	1	100%	1	1	100%
BERNARDS TOWNSHIP HEALTH DEPARTMENT	2	2	2	100%	1	0	0%
BLOOMFIELD DEPARTMENT OF HEALTH	8	7	6	86%	6	4	67%
BRIDGEWATER TOWNSHIP DEPARTMENT OF HEALTH	4	1	1	100%	0	0	N/A
BURLINGTON COUNTY HEALTH DEPARTMENT	20	18	17	94%	12	7	58%
CAMDEN COUNTY DEPARTMENT OF HEALTH	21	21	15	71%	15	15	100%
CAPE MAY COUNTY HEALTH DEPARTMENT	3	3	2	67%	1	0	0%
CLARK HEALTH DEPARTMENT	1	1	0	0%	1	1	100%
CLIFTON HEALTH DEPARTMENT	11	1	0	0%	0	0	N/A
CUMBERLAND COUNTY HEALTH DEPARTMENT	23	23	16	70%	18	15	83%
DOVER HEALTH DEPARTMENT	1	1	1	100%	1	1	100%
EAST ORANGE HEALTH DEPARTMENT	45	40	37	93%	28	27	96%
EDISON DEPARTMENT OF HEALTH & HUMAN RESOURCES	23	11	9	82%	0	0	N/A
ELIZABETH DEPARTMENT OF HEALTH & HUMAN SERVICES	33	33	21	64%	20	19	95%
ELMWOOD PARK DEPARTMENT OF HEALTH	3	3	3	100%	3	3	100%
ENGLEWOOD HEALTH DEPARTMENT	3	3	3	100%	2	2	100%
EWING TOWNSHIP HEALTH DEPARTMENT	3	0	N/A	N/A	N/A	N/A	N/A
FAIR LAWN HEALTH DEPARTMENT	3	3	3	100%	3	3	100%
FRANKLIN TOWNSHIP HEALTH DEPARTMENT	3	3	2	67%	2	2	100%
FREEHOLD AREA HEALTH DEPARTMENT	1	0	N/A	N/A	N/A	N/A	N/A

Local Health Department	Cases Referred*	Investigation Required**	Investigation Completed***	% Investigation Completed	Abatement Required	Abatement Completed	% Abatement Completed
GLOUCESTER COUNTY DEPARTMENT OF HEALTH	12	12	11	92%	10	10	100%
HACKENSACK HEALTH DEPARTMENT	5	5	5	100%	3	3	100%
HAMILTON TOWNSHIP DIVISION OF HEALTH	6	4	3	75%	2	1	50%
HARRISON BOARD OF HEALTH	2	2	1	50%	1	1	100%
HAZLET-ABERDEEN HEALTH DEPARTMENT	1	0	0	N/A	0	0	N/A
HILLSBOROUGH TOWNSHIP HEALTH DEPARTMENT	2	0	0	N/A	0	0	N/A
HUNTERDON COUNTY DEPARTMENT OF HEALTH	4	0	0	N/A	0	0	N/A
IRVINGTON DEPARTMENT OF HEALTH & WELFARE	46	44	27	61%	7	5	71%
JERSEY CITY DIVISION OF HEALTH	64	41	32	78%	24	23	96%
KEARNY DEPARTMENT OF HEALTH	3	3	3	100%	3	3	100%
LAWRENCE TOWNSHIP HEALTH DEPARTMENT	2	2	2	100%	2	2	100%
LINCOLN PARK HEALTH DEPARTMENT	2	2	2	100%	2	1	50%
LINDEN BOARD OF HEALTH	1	1	1	100%	1	1	100%
LIVINGSTON HEALTH DEPARTMENT	1	1	1	100%	1	1	100%
LONG BRANCH DEPARTMENT OF HEALTH	8	7	7	100%	6	6	100%
MADISON BORO BOARD OF HEALTH	5	3	1	33%	1	1	100%
MAPLEWOOD HEALTH DEPARTMENT	3	3	3	100%	3	3	100%
MID-BERGEN REGIONAL HEALTH COMMISSION	10	10	9	90%	8	8	100%
MIDDLE-BROOK REGIONAL HEALTH COMMISSION	3	2	2	100%	2	2	100%
MIDDLESEX COUNTY PUBLIC HEALTH DEPARTMENT	53	31	24	77%	23	21	91%
MIDDLETOWN TOWNSHIP HEALTH DEPARTMENT	1	1	1	100%	0	0	N/A
MONMOUTH COUNTY HEALTH DEPARTMENT	15	13	11	85%	9	5	56%
MONMOUTH COUNTY REGIONAL HEALTH COMMISSION	12	9	6	67%	6	3	50%
MONTCLAIR HEALTH DEPARTMENT	10	9	7	78%	5	5	100%
MONTGOMERY TOWNSHIP HEALTH DEPARTMENT	1	1	0	0%	0	0	N/A
MORRISTOWN DIVISION OF HEALTH	4	4	3	75%	3	2	67%
N.W. BERGEN REGIONAL HEALTH COMMISSION	1	1		0%	0	0	N/A

Local Health Department	Cases Referred*	Investigation Required**	Investigation Completed***	% Investigation Completed	Abatement Required	Abatement Completed	% Abatement Completed
NEWARK DEPARTMENT OF CHILD AND FAMILY WELL BEING	139	118	89	75%	66	63	95%
NORTH BERGEN HEALTH DEPARTMENT	8	7	7	100%	6	6	100%
OCEAN COUNTY HEALTH DEPARTMENT	17	9	6	67%	5	4	80%
PARAMUS BOARD OF HEALTH	1	1	0	0%	0	0	N/A
PARSIPPANY HEALTH DEPARTMENT	5	2	0	0%	0	0	N/A
PASSAIC CITY HEALTH DEPARTMENT	23	20	16	80%	9	8	89%
PATERSON DIVISION OF HEALTH	61	61	41	67%	34	32	94%
PEQUANNOCK TOWNSHIP BOARD OF HEALTH	1	0	0	N/A	0	0	N/A
PISCATAWAY TOWNSHIP HEALTH DEPARTMENT	6	4	4	100%	4	4	100%
PLAINFIELD HEALTH DEPARTMENT	51	45	39	87%	23	12	52%
RAHWAY HEALTH DEPARTMENT	11	3	3	100%	2	2	100%
RANDOLPH TOWNSHIP BOARD OF HEALTH	3	2	0	0%	0	0	N/A
RIDGEFIELD HEALTH DEPARTMENT	4	4	4	100%	4	4	100%
ROCKAWAY TOWNSHIP HEALTH DEPARTMENT	2	1	0	0%	0	0	N/A
ROSELLE HEALTH DEPARTMENT	2	0	0	N/A	0	0	N/A
ROXBURY TOWNSHIP BOARD OF HEALTH	1	1	1	100%	0	0	N/A
SALEM COUNTY DEPARTMENT OF HEALTH	9	9	9	100%	7	6	86%
SOMERSET COUNTY HEALTH DEPARTMENT	7	7	6	86%	7	7	100%
SOMERVILLE HEALTH DEPARTMENT	1	1	1	100%	1	0	0%
SOUTH BRUNSWICK HEALTH DEPARTMENT	5	3	3	100%	3	3	100%
SOUTH ORANGE HEALTH DEPARTMENT	1	1	0	0%	1	1	100%
SUMMIT HEALTH DEPARTMENT	1	1	0	0%	0	0	N/A
TOWNSHIP OF CRANFORD DEPARTMENT OF HEALTH	2	2	1	50%	0	0	N/A
TOWNSHIP OF HANOVER HEALTH DEPARTMENT	1	1	0	0%	0	0	N/A
TOWNSHIP OF UNION DEPARTMENT OF HEALTH	5	4	3	75%	1	0	0%
TOWNSHIP OF WASHINGTON LOCAL HEALTH AGENCY	2	2	2	100%	1	0	0%
TRENTON DEPT OF HEALTH & HUMAN SERVICES	51	29	26	90%	15	10	67%

Local Health Department	Cases Referred*	Investigation Required**	Investigation Completed***	% Investigation Completed	Abatement Required	Abatement Completed	% Abatement Completed
VINELAND DEPARTMENT OF HEALTH	4	4	3	75%	4	4	100%
WARREN COUNTY HEALTH DEPARTMENT	9	6	3	50%	1	1	100%
WEST MILFORD TOWNSHIP HEALTH DEPARTMENT	1	1	1	100%	1	1	100%
WEST NEW YORK HEALTH DEPARTMENT	8	8	7	88%	6	6	100%
WEST ORANGE HEALTH DEPARTMENT	25	22	21	95%	18	18	100%
WEST WINDSOR TOWNSHIP HEALTH DEPARTMENT	2	1	1	100%	1	1	100%
WESTFIELD REGIONAL HEALTH DEPARTMENT	3	3	3	100%	3	3	100%
WESTWOOD HEALTH DEPARTMENT	1	1	0	0%	0	0	N/A
WOODBIDGE TOWNSHIP DEPT OF HEALTH & HUMAN SERV	10	2	0	0%	0	0	N/A

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

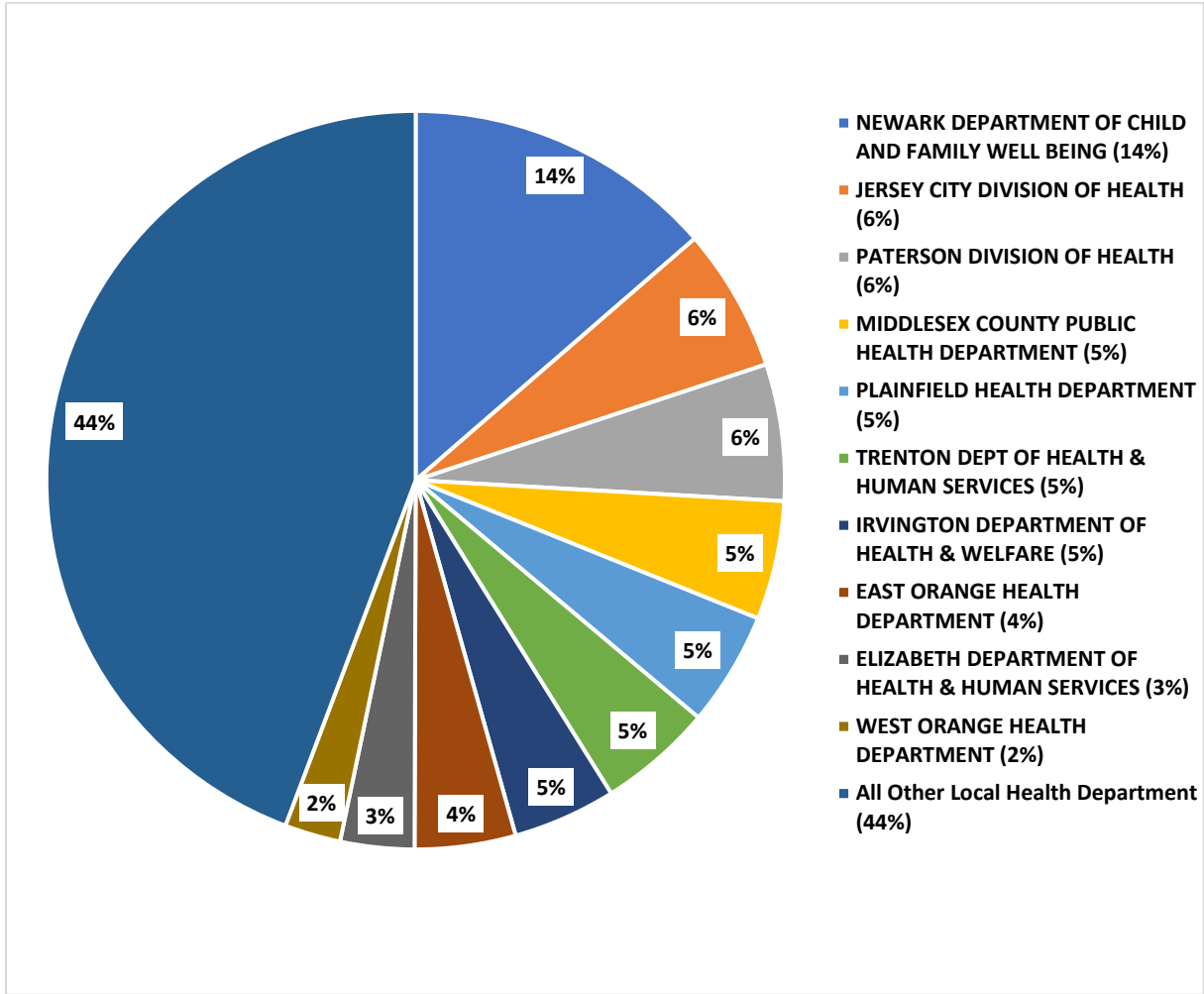
**An environmental investigation is required for all environmental cases referred unless the property was built after 1978 or the property has a lead-free certificate. Click here for [N.J.A.C. 8:51-4.1](#).

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

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Figure 8

SFY 2020: Top Ten Local Health Departments with the Highest Percentage of New Environmental Case Referrals* Compared to All Other Local Health Departments

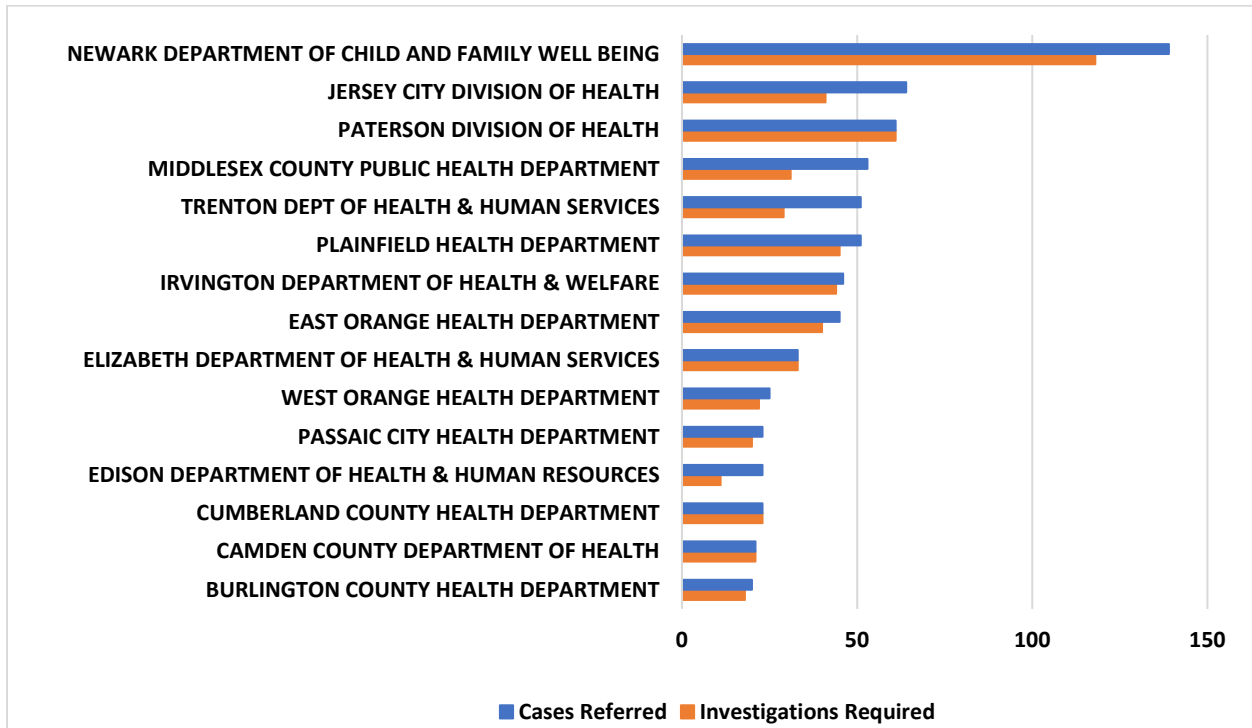


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Data for this table are based on case updates entered in LeadTrax as of December 9, 2020. If a local health department completed an investigation or abatement but did not update data in LeadTrax, the inspection or abatement will not be counted as completed in this report.

Figure 9

Local Health Departments with ≥ 20 New Environmental Case Referrals* in SFY 2020 Compared to Environmental Investigations Required**



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

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Data for this table are based on case updates entered in LeadTrax as of December 9, 2020. If a local health department completed an investigation or abatement but did not update data in LeadTrax, the inspection or abatement will not be counted as completed in this report.

References

1. New Jersey COVID-19 Information Hub. When is New Jersey lifting restrictions: <https://covid19.nj.gov/faqs/nj-information/reopening-guidance-and-restrictions/when-is-new-jersey-lifting-restrictions>.
2. Courtney JG, Chuke SO, Dyke K, et al. Decreases in Young Children Who Received Blood Lead Level Testing During COVID-19 — 34 Jurisdictions, January–May 2020. *MMWR Morb Mortal Wkly Rep* 2021;70:155–161. DOI: [http://dx.doi.org/10.15585/mmwr.mm7005a2external icon](http://dx.doi.org/10.15585/mmwr.mm7005a2external%20icon)