

Delaware County Child Lead Report, 2022



Table of Contents

Executive Summary	3
Key Findings from Delaware County’s 2 nd Childhood Lead Surveillance Report.....	5
Data Methods and Case Definitions	6
Limitations	6
Definitions.....	6
DCHD in Action	7
Findings.....	8
Frequency Distribution of EBLs in Delaware County	9
Table 1: Characteristics of Children Tested for Lead by Age Category, 2022.....	10
Table 2: Characteristics of Confirmed Elevated BLL (≥ 3.5) of Children Tested for Lead by Race and Age Category, 2022.....	11
Table 3: Elevated Blood Lead Confirmation Status per Case Definition by Age Category, 2022.....	11
Table 4: Characteristics of Children Tested for Lead and with Confirmed Elevated BLL (≥ 3.5) by Age Category and Sex, 2021 vs. 2022	12
Maps.....	13
Map 1. Number of Blood Draws from Children 0-15 and blood lead level ≥ 3.5 $\mu\text{g}/\text{dL}$ by Census Tract, 2022	14
Map 2. Average Blood Lead Levels in Children 0-15 (≥ 3.5 $\mu\text{g}/\text{dL}$) by Census Tract, 2022	15
Map 3. ACS 2016-2020 Housing Units by Year Built Predominance by Census Tract	16

Executive Summary

The Delaware County Health Department (DCHD)'s 2nd annual childhood lead surveillance report summarizes information on lead poisoning in Delaware County children less than 16 years of age for the calendar year 2022. The report follows up on Delaware County's first childhood lead surveillance report, which summarized information on lead poisoning in Delaware County children less than 16 years of age for the calendar year 2021. The intended audience of this report includes families, healthcare providers, organizations, and all individuals interested in learning about current childhood lead poisoning levels in Delaware County.

DCHD routinely monitors blood lead levels from capillary (finger prick) and venous (blood draw from veins) in children less than 16 years of age. Parents of children with elevated blood lead levels (equal and above 3.5 µg/dL) receive a letter describing steps that can be taken at home to reduce the amount of lead in their children (nutrition, housekeeping, food, toys, and keeping out external sources of lead). Families of children with higher blood lead levels, or levels that are not decreasing after education/intervention, receive case management from a DCHD nurse. Families of children with elevated lead levels are offered information about lead remediation services by contractors who specialize in this work.

The World Health Organization, U.S. Environmental Protection Agency, and the Centers for Disease Control and Prevention (CDC) state that there is no safe blood lead level in children.^{1,2} Exposure to lead can negatively affect multiple body systems (brain, liver, kidneys) and is particularly harmful to young children and women of child-bearing age. Lead is stored in the teeth and bones, where it can accumulate over time.

Exposure to lead, even at low levels, can cause serious harm to a child. Health effects include damage to the brain and nervous system, slowed growth and development, learning and behavior problems, and hearing and speech problems.³ A common pathway for children to be exposed to lead is when they breathe in or ingest lead dust from lead-painted surfaces. Lead-based paints were banned for residential use in 1978. Any homes built in the U.S. before 1978 are likely to have lead-based paint. The median year of houses built in Delaware County is 1956.

The amount of lead in blood is referred to as the blood lead level, which is measured in micrograms of lead per deciliter of blood (µg/dL). CDC currently uses a blood lead reference value of 3.5 µg/dL to identify children with blood lead levels that are higher than most children's levels.⁴ This value is used to identify children that require further testing and case management to reduce exposure and protect the child's health.

For this report, DCHD extracted and analyzed data from the state's electronic reportable disease surveillance system (Pennsylvania National Electronic Disease Surveillance System or PA-NEDSS). The report provides information about blood lead testing for children under 2 years of age, under 6 years of age, and under 16 years of age, as well as method of testing, municipality, race and ethnicity, and sex. DCHD collaborated with the Pennsylvania Department of Health (PADOH) to obtain and analyze these data and with the Delaware County Office of Sustainability, Mapping and Data Services to map this information across the county.

The goals of this report include: 1) identify locations that may be at higher risk for lead exposure and higher need for outreach and information; 2) identify children at higher risk of lead poisoning and experiencing disparities; and 3) locate geographical areas/jurisdictions with potential under-testing of lead blood levels.

DCHD received 9,995 blood lead test results representing 9,438 unique children ages 0-15 years in 2022. A total of 307 children (3.25% of those tested) met the case definition for confirmed elevated blood lead level (EBLL) ≥ 3.5 µg/dL. Of

¹ USEPA [Basic Information about Lead in Drinking Water | US EPA](#)

² WHO <https://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health>

³ CDC Prevent Children's Exposure to Lead:

<https://www.cdc.gov/nceh/features/leadpoisoning/index.html#:~:text=during%20the%20following%3A-.Exposure%20to%20lead%20can%20seriously%20harm%20a%20child's%20health%2C%20including.and%20hearing%20and%20speech%20problems.&text=Lead%20paint%20or%20dust%20are.exposure%20can%20occur%20in%20children.>

⁴ CDC Blood Lead Levels in Children: <https://www.cdc.gov/nceh/lead/data/blood-lead-reference-value.htm>

the elevated children in 2022, 268 (87.30% of confirmed tests) children were 0-71 months of age and 83 children were 0-23 months of age (27.04% of confirmed tests). Only 4 children had a confirmed EBLL ≥ 3.5 $\mu\text{g}/\text{dL}$ via a capillary test method, and the rest of the elevated cases were via venous blood draw. African American/Black children accounted for 31.21% of those tested and 49.65% of confirmed cases with an EBLL ≥ 3.5 $\mu\text{g}/\text{dL}$. Among children aged 0-71 months, females accounted for 44.03% of elevated blood lead tests and males 55.97%. Eastern Delaware County has the highest number of children with an EBLL ≥ 3.5 $\mu\text{g}/\text{dL}$.

DCHD examined differences in characteristics of children with confirmed elevated blood lead levels (equal or higher than 3.5 $\mu\text{g}/\text{dL}$) between 2021 and 2022. In summary:

- More children in age groups under 2, under 6 and 0-15 years of age were tested for blood lead levels in 2022 compared to 2021.
- For children under 2 years of age, the number of children with a confirmed elevated blood lead level equal or greater than 3.5 $\mu\text{g}/\text{dL}$ decreased in 2022 compared to 2021.
- For children under 6 and 0-15 years of age, the number of children with an elevated blood lead level equal to or higher than 3.5 $\mu\text{g}/\text{dL}$ was slightly higher in 2022 compared to 2021.

It is worth noting that the general trend of increasing blood lead testing for children of all ages and decreasing numbers of children under 2 years of age with elevated blood lead levels are also observed in historical data provided by the Pennsylvania Department of Health for Delaware County from 2004 to 2020 (these years represent the publicly available data from PA DOH EDDIE <https://www.phaim1.health.pa.gov/EDD/WebForms/ChildLead.aspx> at this time).

Key Findings from Delaware County's 2nd Childhood Lead Surveillance Report

- There were 9,995 blood lead test results representing 9,438 unique children ages 0-15 years in 2022.
 - 5,048 children under age 2 were tested and 9,073 children under age 6 were tested.
- A total of 307 children (3.25%) had an Elevated Blood Lead Level (EBLL), as defined as one venous test ≥ 3.5 $\mu\text{g}/\text{dL}$ or two capillary test ≥ 3.5 $\mu\text{g}/\text{dL}$ within 12 weeks of each other in 2022.
 - EBLL results ranged from 3.5 to 63.2 $\mu\text{g}/\text{dL}$.
- Eastern Delaware County has the highest childhood blood lead poisoning burden.
 - By municipality, the jurisdictions reporting 10 or more children with EBLLs in 2022 included Upper Darby Township (147), Chester City (41), Darby Borough (29), Yeadon Borough (28), Lansdowne Borough (17), Colwyn Borough (15) and Haverford Township (14).
- Racial disparities were present:
 - African American/Black children accounted for 31.21% of those tested and 49.65% of confirmed elevated cases.
 - White children accounted for 39.69% of those tested and 18.40% of confirmed elevated cases.
 - Asian children accounted for 4.42% of those tested and 5.46% of elevated confirmed cases.
- 2021 vs. 2022:
 - More children in age groups under 2, under 6 and 0-15 years of age were tested for blood lead levels in 2022 compared to 2021.
 - For children under 2 years of age, the number of children with a confirmed elevated blood lead level equal or greater than 3.5 $\mu\text{g}/\text{dL}$ decreased in 2022 compared to 2021.
 - For children under 6 and 0-15 years of age, the number of children with an elevated blood lead level equal to or higher than 3.5 $\mu\text{g}/\text{dL}$ was slightly higher in 2022 compared to 2021.

Data Methods and Case Definitions

Methodology

All blood lead level (BLL) test data on children less than 16 years of age in 2022 was extracted from the PA-NEDSS database using SAS EG. Analyses were performed on a per-test or per-child basis noted in the tables below.

Most of the analyses in this report are limited to children under 2 years of age (0-23 months) and under 6 years of age (0-71 months). Age was defined at the time of the specimen collection date.

Duplicate tests were removed using concatenation during data analysis.

Information on race and ethnicity is inconsistently reported within PA-NEDSS. For example, 11.7% of cases had race classified as unknown and 12.5% had race classified as other. Many cases had multiple race categories chosen as well. Fractional assignment was used to properly account for multiracial cases. Furthermore, 63.1% of children did not have ethnicity information recorded in the PA-NEDSS system. Therefore, DCHD's ability to draw conclusions regarding childhood blood lead information and race and/or ethnicity in Delaware County with this dataset is limited.

Limitations

Readers of the 2022 Delaware County Child Lead Report should be aware that public health surveillance data for childhood blood lead has inherent limitations that may influence the interpretation of data. For this data set, race and ethnicity data are inconsistently reported. Many cases had one race choice selected as well as race unknown or race other while other cases have multiple races checked.

Another limitation to this report is the underreporting of cases. Children on Medicaid/CHIP are required to receive blood lead screening tests at age 12 months and 24 months. Also, children between 24 months and 72 months with no record of a previous blood lead screening test are required to receive one. Children covered under private insurance do not typically get tested unless a parent or guardian requests one. Even so, testing is primarily based on risk, and it is difficult to receive a test if the risk factors are not present. Capillary point of care testing may not be reported as consistently as venous testing.

Definitions

Data sources: Pennsylvania Department of Health, PA-NEDSS.

- Case definition⁵
 - On May 14, 2021, the Lead Exposure and Prevention Advisory Committee (LEPAC) voted to lower the childhood blood lead reference value from 5 µg/dL to 3.5 µg/dL.
 - Laboratory criteria for diagnosis
 - Blood lead concentration, as determined by a Clinical Laboratory Improvement Amendments (CLIA)-certified facility, of ≥ 3.5 µg/dL in a child (person <16 years of age).
 - Case classification⁶
 - Confirmed lead poisoning
 - One venous blood specimen with elevated lead concentration (≥ 3.5 µg/dL), or two capillary blood specimens, drawn within 12 weeks of each other, both with ≥ 3.5 µg/dL.
 - Unconfirmed
 - A capillary blood lead test ≥ 3.5 µg/dL with no other blood lead test done in the next 12 weeks.
- Testing requirements

⁵ CDC: <https://www.cdc.gov/nceh/lead/data/blood-lead-reference-value.htm>

⁶ PADOH 2020 Childhood Lead Surveillance Annual Report:

<https://delcogov.sharepoint.com/sites/EpidemiologyUnit/Shared%20Documents/Lead%20Project/2020%20Childhood%20Lead%20Surveillance%20Annual%20Report.pdf?CT=1664213085670&OR=ItemsView>

- All children enrolled in Medicaid, regardless of whether coverage is funded through title XIX or XXI, are required to receive blood lead screening tests at ages 12 months and 24 months. In addition, any child between 24 and 72 months with no record of a previous blood lead screening test must receive one. Completion of a risk assessment questionnaire does not meet the Medicaid requirement. The Medicaid requirement is met only when the two blood lead screening tests identified above (or a catch-up blood lead screening test) are conducted.⁷
 - In Pennsylvania, clinical laboratories are required to report all BLL results from both venous and capillary specimens for persons under 16 years of age to the Pennsylvania Department of Health (28 Pa. Code § 27.34). In addition, clinicians are required to report cases of lead poisoning for children under 16 and for pregnant women (28 Pa. Code § 27.34). Reports are submitted electronically (either through electronic laboratory reporting or online key entry) to the Department through NEDSS).⁸
- Blood Lead Level (BLL)
 - The numeric result of a blood lead test, expressed in micrograms per deciliter (µg/dL).
 - Capillary
 - A blood lead test with blood drawn from a finger stick.
 - Confirmed EBLL
 - ≥3.5 µg/dL venous test or two capillary blood lead tests ≥3.5 µg/dL drawn within 12 weeks of each other.
 - Elevated Blood Lead Level (EBLL)
 - A BLL ≥3.5 µg/dL.
 - Municipality
 - A political subdivision of a state within which a municipal corporation has been established to provide general local government for a specific population concentration in a defined area.
 - Race
 - White, Black, Asian, American Indian, Pacific Islander, Other, and/or Unknown.
 - Ethnicity
 - Non-Hispanic White, Non-Hispanic Black, Hispanic, and/or Unknown.

DCHD in Action

Addressing childhood lead poisoning in Delaware County is a collaborative effort involving the work of many partners. DCHD, in conjunction with Delaware County Office of Housing and Community Development, Delaware County Department of Human Services, Delaware County Intermediate Unit, Community Action Agency of Delaware County (CAADC), Family and Community Services of Delaware County, the Women, Infant, and Children (WIC) program, the Foundation for Delaware County, Children First, health professionals, local housing and code officials, landlords and families all work together to identify children exposed to lead and mitigate those exposures.

DCHD plays a key role in this complex system through clinical case management of children identified with EBLLs and through evaluation of surveillance data to support public health action.

A DCHD Maternal & Child Health Nurse (MCH nurse) monitors and follows up on elevated blood lead levels (≥3.5 µg/dL, or “positive cases”) in children under the age of 7 years living in Delaware County. DCHD’s protocol is for all positive cases, that DCHD will initiate a NEDSS investigation within 3 business days and follow up with next steps for cases within 3 days thereafter. Upon confirmation of an EBLL, DCHD will send out a letter to families that includes

⁷ Medicaid: <https://www.medicaid.gov/medicaid/benefits/early-and-periodic-screening-diagnostic-and-treatment/lead-screening/index.html>

⁸ PADOH 2020 Childhood Lead Surveillance Annual Report: <https://delcogov.sharepoint.com/sites/EpidemiologyUnit/Shared%20Documents/Lead%20Project/2020%20Childhood%20Lead%20S urveillance%20Annual%20Report.pdf?CT=1664213085670&OR=ItemsView>

educational materials, information about referrals for Early Intervention or Delaware County Intermediate Unit services, and WIC, and steps to take to prevent/decrease exposure to lead.

When a child has an EBLL ≥ 12 $\mu\text{g/dL}$, in addition to the steps above the MCH nurse will contact the parent/guardian to facilitate follow-up testing between the child and their pediatrician and reinforce continued guidance and education on potential sources of exposure, how to limit exposure, and any other guidance families may need. Referrals to the Pennsylvania Special Supplemental Nutritional Program for Women, Infants, and Children (WIC), Early Intervention, and Delaware County Intermediate Unit, and information about lead inspection options and lead remediation programs are provided. DCHD's Epidemiology team supports the MCH nurse in case management and evaluates surveillance data.

Overall, this system links lead poisoning case investigations with case management and lead mitigation services in a multidisciplinary, coordinated program. This approach supports real-time monitoring of lead levels among children identified with lead poisoning.

Findings

- **A total of 9,995 tests were conducted among 9,438 children in 2022.**
- There were **5,048** children under age 2 tested and **9,073** children under age 6 tested in 2022.
- There were **83** children under age 2 with confirmed EBLL ≥ 3.5 $\mu\text{g/dL}$
- There were **2** children under age 2 with EBLL ≥ 3.5 $\mu\text{g/dL}$ from capillary tests
- There were **81** children under age 2 with EBLL ≥ 3.5 $\mu\text{g/dL}$ from venous tests
- There were **268** children under age 6 with confirmed EBLL ≥ 3.5 $\mu\text{g/dL}$
- There were **2** children under age 6 with EBLL ≥ 3.5 $\mu\text{g/dL}$ from capillary tests
- There were **264** children under age 6 with EBLL ≥ 3.5 $\mu\text{g/dL}$ from venous tests
- **A total of 307 children (3.3% of those tested) met the case definition for confirmed EBLL** (one venous blood lead test ≥ 3.5 $\mu\text{g/dL}$ or two capillary blood lead tests ≥ 3.5 $\mu\text{g/dL}$ drawn within 12 weeks of each other).
 - Of those, **4 children had two blood capillary tests ≥ 3.5 $\mu\text{g/dL}$ drawn within 12 weeks of each other, and 303 children had one venous blood lead test ≥ 3.5 $\mu\text{g/dL}$.** Of the 303 children who had one venous blood lead test ≥ 3.5 $\mu\text{g/dL}$, there were a total of 434 tests conducted.

Age Category	Total # of Tests	Capillary Test		Venous Test		Blank
		N	%	N	%	N
0-23 months (under 2 years)	5,253	4,031	76.74%	1,212	23.07%	10
0-71 months (under 6 years)	9,605	6,986	72.73%	2,600	27.07%	19
0-15 years	9,995	7,048	70.52%	2,924	29.25%	23

Age Category	Total Unique Patients	Capillary Test		Venous Test	
		N	%	N	%
0-23 months (under 2 years)	5,048*	3,955	78.35%	1,154	22.86%
0-71 months (under 6 years)	9,073*	6,804	74.99%	2,413	26.60%
0-15 years	9,438*	6,866	72.75%	2,715	28.77%

*Capillary and venous unique tests will not equal total unique patients as some children received both tests.

Age Category	CONFIRMED Unique Pts ($\geq 3.5 \mu\text{g/dL}$)	Capillary Test		Venous Test	
		N	%	N	%
0-23 months (under 2 years)	83	2	2.41%	81	97.59%
0-71 months (under 6 years)	268	2	0.75%	264	98.51%
0-15 years	307	4	1.30%	303	98.70%

Frequency Distribution of EBLs in Delaware County

- The distribution of confirmed cases for 2022 is unimodal and skewed right with a long tail. The majority of EBLs in Delaware County are between 3-6 $\mu\text{g/dL}$.
- The average confirmed EBL is 8.23 $\mu\text{g/dL}$.
- EBLs range from 3.5 $\mu\text{g/dL}$ to 63.2 $\mu\text{g/dL}$.
- There are 13 blood lead tests greater than 25 $\mu\text{g/dL}$.

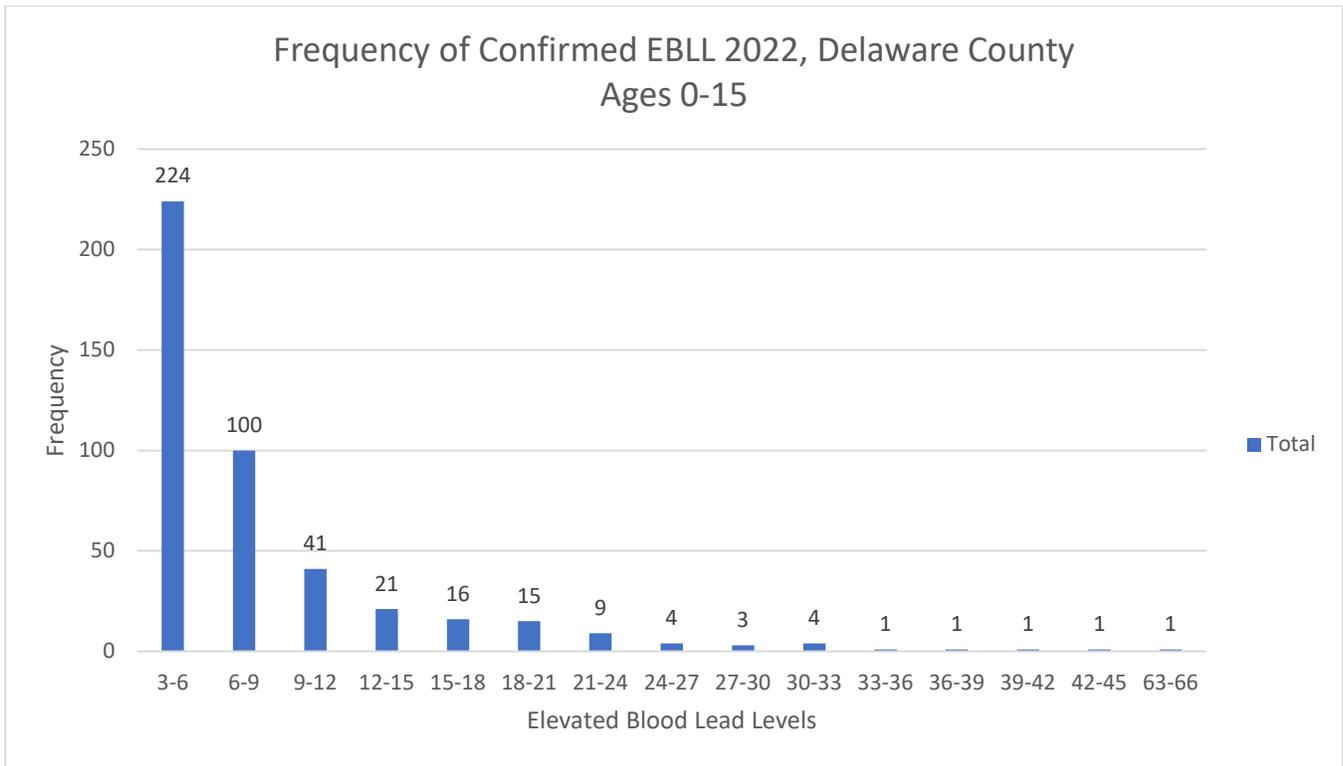


Table 1: Characteristics of Children Tested for Lead by Age Category, 2022

	Children aged 0-23 Months (Under 2)		Children aged 0-71 Months (Under 6)		Children aged 0-15	
	N	% of total	N	% of total	N	% of total
Total # of children tested†	5,048	53.49%	9,073	96.13%	9,438	100%
Sex						
Female	2,471	48.95%	4,425	48.77%	4,589	48.62%
Male	2,574	50.99%	4,643	51.17%	4,844	51.32%
Unknown	3	0.06%	5	0.06%	5	0.05%
Race						
Asian	226	4.47%	395	4.35%	417	4.42%
Black or African American	1,444	28.60%	2,807	30.94%	2,946	31.21%
White	2,210	43.78%	3,656	40.30%	3,746	39.69%
American Indian	16	0.31%	36	0.39%	38	0.40%
Islander	2	0.05%	4	0.05%	4	0.04%
Other	570	11.29%	1,113	12.27%	1,179	12.49%
Unknown	581	11.51%	1,062	11.71%	1,108	11.74%
Ethnicity						
Hispanic	506	10.02%	921	10.15%	960	10.17%
Non-Hispanic	1,356	26.86%	2,443	26.93%	2,523	26.73%
Unknown or missing	3,186	63.11%	5,709	62.92%	5,955	63.10%

Table 2: Characteristics of Confirmed Elevated BLL (≥ 3.5) of Children Tested for Lead by Race and Age Category, 2022

	Children aged 0-23 Months (Under 2)		Children aged 0-71 Months (Under 6)		Children aged 0-15	
	N	% of total	N	% of total	N	% of total
Total # of confirmed cases	83	27.04%	268	87.30%	307	100%
Sex						
Female	41	49.40%	118	44.03%	129	42.02%
Male	42	50.60%	150	55.97%	178	57.98%
Unknown	0	0.00%	0	0.00%	0	0.00%
Race						
Asian	4	4.22%	14	5.38%	17	5.46%
Black or African American	33	39.76%	135	50.53%	152	49.65%
White	17	19.88%	47	17.41%	57	18.40%
American Indian	2	1.81%	4	1.40%	4	1.22%
Islander	0	0.00%	0	0.00%	0	0.00%
Other	26	30.72%	49	18.19%	57	18.59%
Unknown	3	3.61%	19	7.09%	21	6.68%
Ethnicity						
Hispanic	17	20.48%	34	12.69%	40	13.03%
Non-Hispanic	20	24.10%	97	36.19%	109	35.50%
Unknown or missing	46	55.42%	137	51.12%	158	51.47%

Table 3: Elevated Blood Lead Confirmation Status per Case Definition by Age Category, 2022

	Children aged 0-23 Months		Children aged 0-71 Months	
	N	% of total	N	% of total
Total # of children tested	5,048	100%	9,073	100%
Confirmation Status				
Not elevated (< 3.5 $\mu\text{g/dL}$)**	4,965	98.36%	8,805	97.05%
Confirmed 3.5-9.9 $\mu\text{g/dL}$ †	78	1.55%	237	2.61%
Confirmed ≥ 10 $\mu\text{g/dL}$ †	12	0.24%	49	0.54%

*CDC case definition defines a confirmed elevated BLL as one venous blood lead test ≥ 3.5 $\mu\text{g/dL}$, or 2 capillary blood lead tests ≥ 3.5 $\mu\text{g/dL}$ drawn within 12 weeks of each other.

**The child had either no BLL ≥ 3.5 $\mu\text{g/dL}$ or had an initially elevated capillary BLL that was found to be < 3.5 $\mu\text{g/dL}$ on either venous or capillary retest.

†Capillary and venous children tested will not equal total unique confirmed patients as some children had confirmed status in both categories.

Table 4: Characteristics of Children Tested for Lead and with Confirmed Elevated BLL (≥ 3.5) by Age Category and Sex, 2021 vs. 2022

	2021 Number (%)	2022 Number (%)
Total # of Tests		
0-23 months (under 2 years)	5,050 (51.85%)	5,253 (52.56%)
0-71 months (under 6 years)	9,354 (96.04%)	9,605 (96.10%)
0-15 years	9,749 (100%)	9,995 (100%)
Total Unique Patients		
0-23 months (under 2 years)	4,882 (52.59%)	5,048 (53.49%)
0-71 months (under 6 years)	8,907 (95.95%)	9,073 (96.13%)
0-15 years	9,283 (100%)	9,438 (100%)
CONFIRMED Unique Pts Children (≥ 3.5 $\mu\text{g/dL}$)		
0-23 months (under 2 years)	89 (30.27%)	83 (27.04%)
0-71 months (under 6 years)	264 (89.80%)	268 (87.30%)
0-15 years	294 (100%)	307 (100%)
Number of Children aged 0-23 Months (Under 2)		
Female	2,444 (50.06%)	2,471 (48.95%)
Male	2,429 (49.75%)	2,574 (50.99%)
Unknown	9 (0.18%)	3 (0.06%)
Number of Children aged 0-71 Months (Under 6)		
Female	4,385 (49.23%)	4,425 (48.77%)
Male	4,499 (50.51%)	4,643 (51.17%)
Unknown	23 (0.26%)	5 (0.06%)
Number of Children aged 0-15		
Female	4,544 (48.95%)	4,589 (48.62%)
Male	4,715 (50.79%)	4,844 (51.32%)
Unknown	24 (0.26%)	5 (0.05%)
Confirmed Elevated BLL (≥ 3.5) Children aged 0-23 Months (Under 2)		
Female	51 (57.30%)	41 (49.40%)
Male	38 (42.70%)	42 (50.60%)
Unknown	0 (0%)	0 (0%)
Confirmed Elevated BLL (≥ 3.5) Children aged 0-71 Months (Under 6)		
Female	112 (42.42%)	118 (44.03%)
Male	150 (56.82%)	150 (55.97%)
Unknown	2 (0.76%)	0 (0%)
Confirmed Elevated BLL (≥ 3.5) Children aged 0-15		
Female	121 (41.16%)	129 (42.02%)
Male	171 (58.16%)	178 (57.98%)
Unknown	2 (0.68%)	0 (0%)

Maps

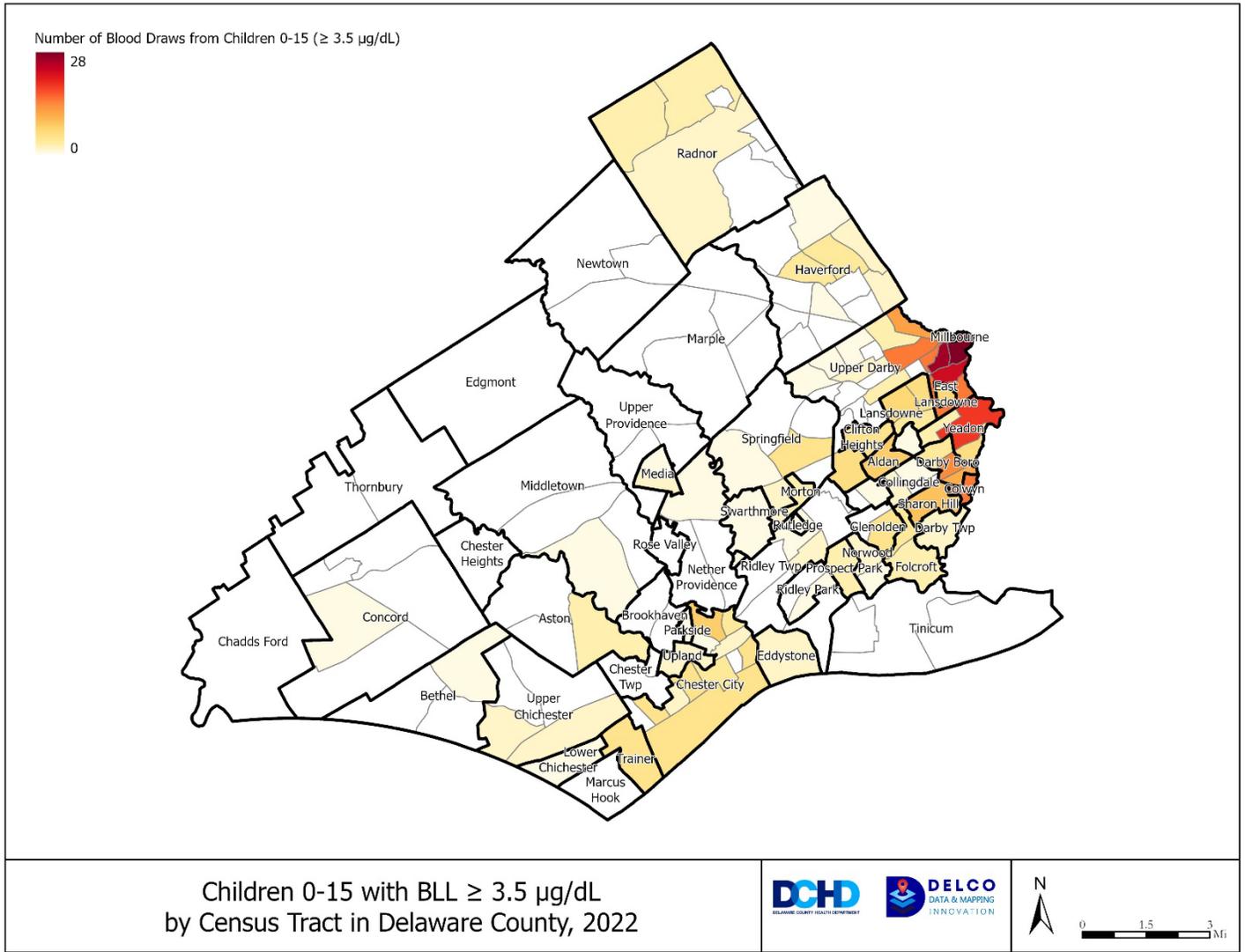
Delaware County's Office of Sustainability, Mapping and Data Services collaborated with DCHD to provide invaluable support in developing the maps in this report. Note, these maps represent a subset of testing results ≥ 3.5 $\mu\text{g}/\text{dL}$ for children in Delaware County, ages 0-15, for calendar year 2022.

Map 1 summarizes the number of blood draws by census tract, Map 2 summarizes the average blood lead levels by census tract, and Map 3 summarizes the American Community Survey (ACS) 2016-2020 housing units by year built by census tract in Delaware County.

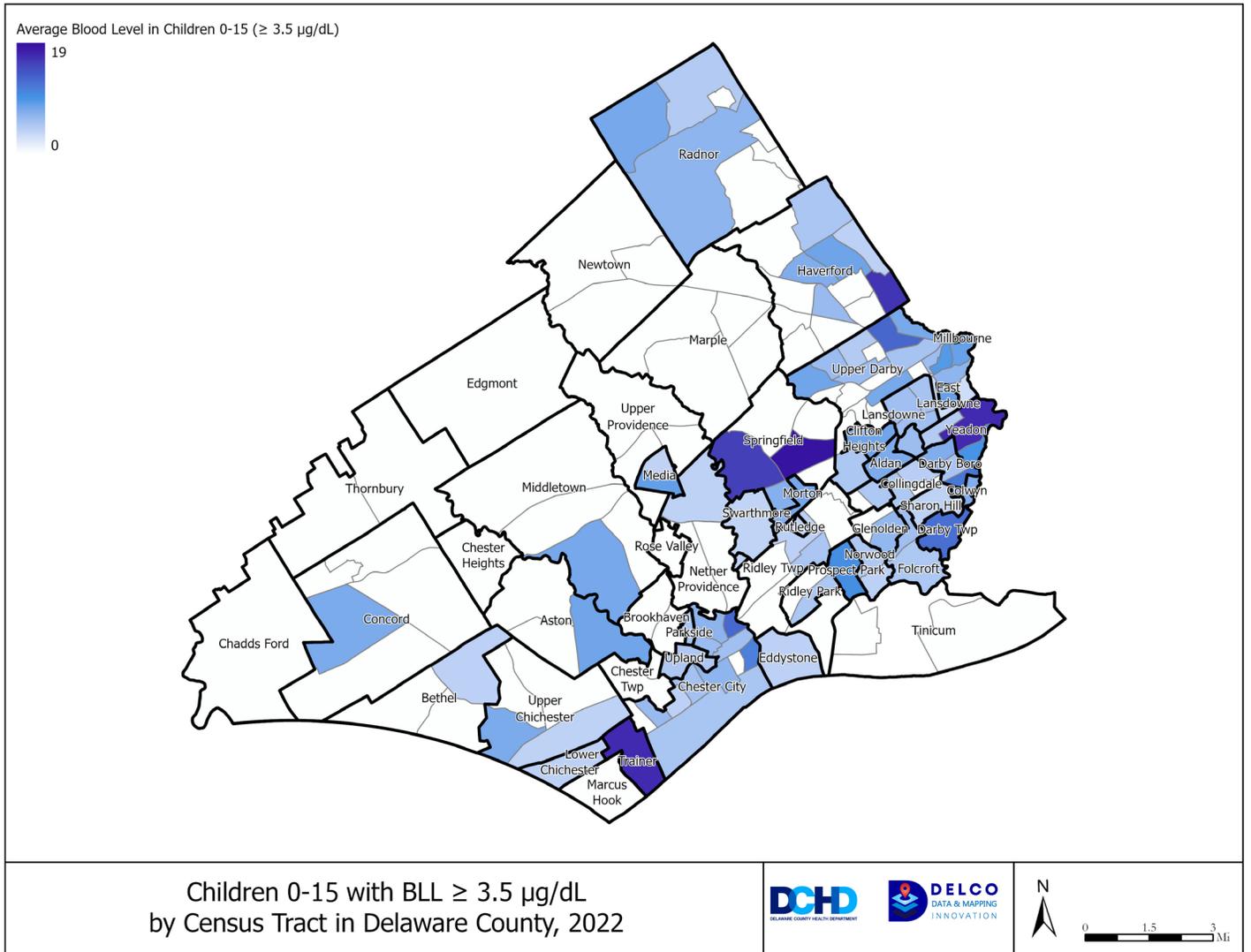
As depicted on the maps, eastern Delaware County has the highest childhood blood lead poisoning burden. Specifically:

- By municipality, the jurisdictions reporting 10 or more children with EBLLs in 2022 included Upper Darby Township (147), Chester City (41), Darby Borough (29), Yeadon Borough (28), Lansdowne Borough (17), Colwyn Borough (15) and Haverford Township (14).
- Census Tracts with the highest number of blood lead tests ≥ 3.5 $\mu\text{g}/\text{dL}$ are Census Tract 4105 (28), Census Tract 4004.01 (26), Census Tract 4003.01 (23), Census Tract 4021 (19) and Census Tract 4027 (15).
- Census Tracts with the highest average elevated blood lead levels are Census Tract 4078.03 (19.24), Census Tract 4021 (17.15), Census Tract 4065 (17.1), Census Tract 4089 (16.5) and Census Tract 4078.01 (15.9).

Map 1. Number of Blood Draws from Children 0-15 and blood lead level $\geq 3.5 \mu\text{g/dL}$ by Census Tract, 2022



Map 2. Average Blood Lead Levels in Children 0-15 ($\geq 3.5 \mu\text{g/dL}$) by Census Tract, 2022



Map 3. ACS 2016-2020 Housing Units by Year Built Predominance by Census Tract

