



2020 EXECUTIVE SUMMARY: CHILDHOOD LEAD POISONING SURVEILLANCE

Lead Poisoning Prevention Program

Funding Sources

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State of Connecticut

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Background

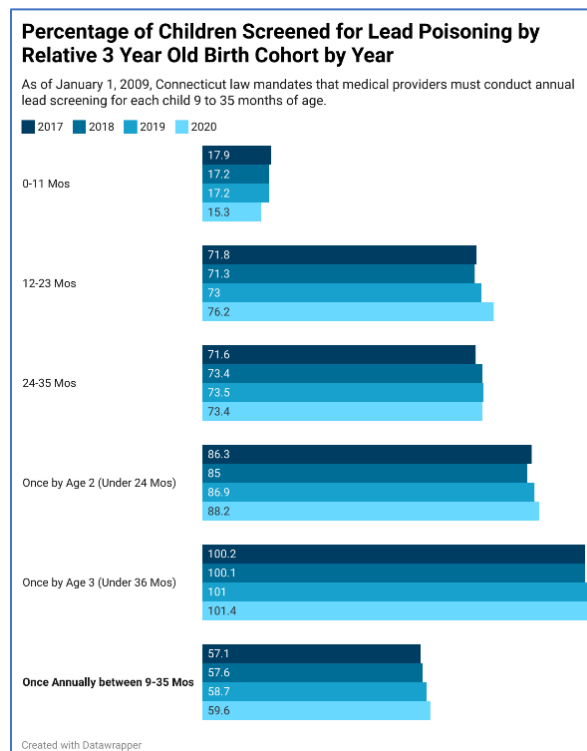
Childhood lead poisoning is the most common pediatric public health problem, yet it is entirely preventable. Lead paint in homes built before 1978 continues to be the most common source of lead exposure. Lead harms children's nervous systems and is associated with reduced IQ, behavioral problems, and learning disabilities, among other health outcomes. Once a child has been poisoned, the impairment it may cause is irreversible. A mission of the Lead Poisoning Prevention Program is to protect children from lead exposure. The program strives to prevent lead poisoning and promote wellness through education and a wide range of program activities that relate to lead poisoning prevention and intervention. This executive report summarizes the annual findings from blood lead surveillance for Connecticut children under the age of 6 years in 2020 and reviews the progress of the program efforts in addressing this important public health issue. Below are the key findings.

In May 2012, the CDC recommended a new “reference value” of 5 µg/dL, for lead poisoning among young children. The State of Connecticut adopted the new reference value in May 2013. As such, Connecticut local health departments (LHDs) are required to initiate public health case management actions for children with a confirmed blood level of ≥5 µg/dL. In [October 2021, the CDC further reduced the recommended “reference value” to 3.5 µg/dL](#). This report defines 5 µg/dL and greater as an elevated blood lead level. For a more detailed report and corresponding datasets, go to [CT Open Data](#).

Highlights of Findings

Compliance with Mandatory Universal Screening

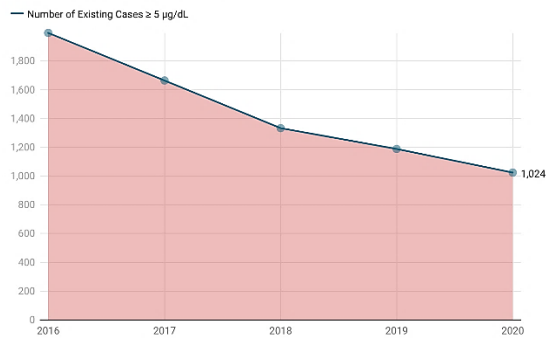
- 61,723 children under the age of 6 were tested for lead.
- There was a sharp decline in screening in April following the onset of the pandemic with a rebound in June.
- Birth cohort analyses of children who turned 3 years old in 2020 shows that 100% of children were tested *at least* one time by the age of 3 years old. However, only 59.6% were tested twice before turning 3 years of age as required by [state law](#). Despite that, the screening rate for the required two annual tests increased from 57.0% in 2016 to 59.6% in 2020.



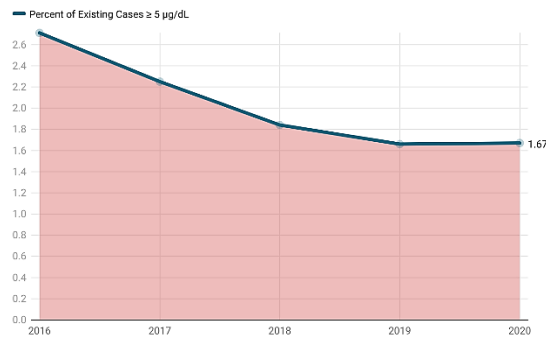
Continued Decline in Childhood Lead Poisoning Rates

- 1,024 (17 per 1,000) children were tested with elevated blood lead levels $\geq 5 \mu\text{g}/\text{dL}$, the CDC reference value. The prevalence rate (existing cases) did not significantly decrease from 2019 however it did statistically significantly decline from 2018 with a 23% reduction in the number of cases.

Prevalence - Number of Children under 6 Years Old with Elevated Blood Lead Levels by Year

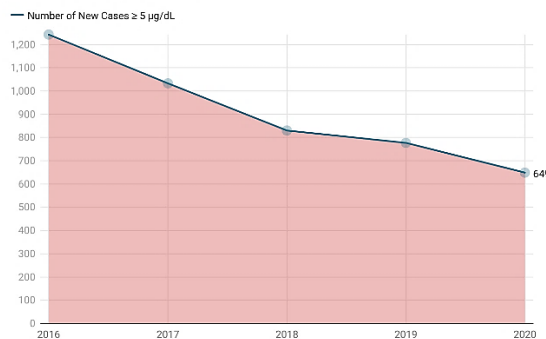


Prevalence - Percent of Children under 6 Years Old with Elevated Blood Lead Levels by Year

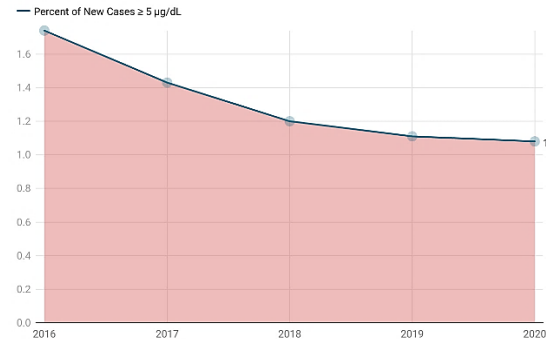


- Of the 1,024 children tested with elevated blood lead levels, 649 (63.4%) were new cases. The incidence rate (new cases) of blood lead tests $\geq 5 \mu\text{g}/\text{dL}$ did not significantly decrease from 2019 or 2018 however it did statistically significantly decline from 1.4% in 2017 to 1.1% 2020.
- The overall 5 year risk reduction was 42%.

Incidence- Number of Children under 6 Years Old with Elevated Blood Lead Levels by Year



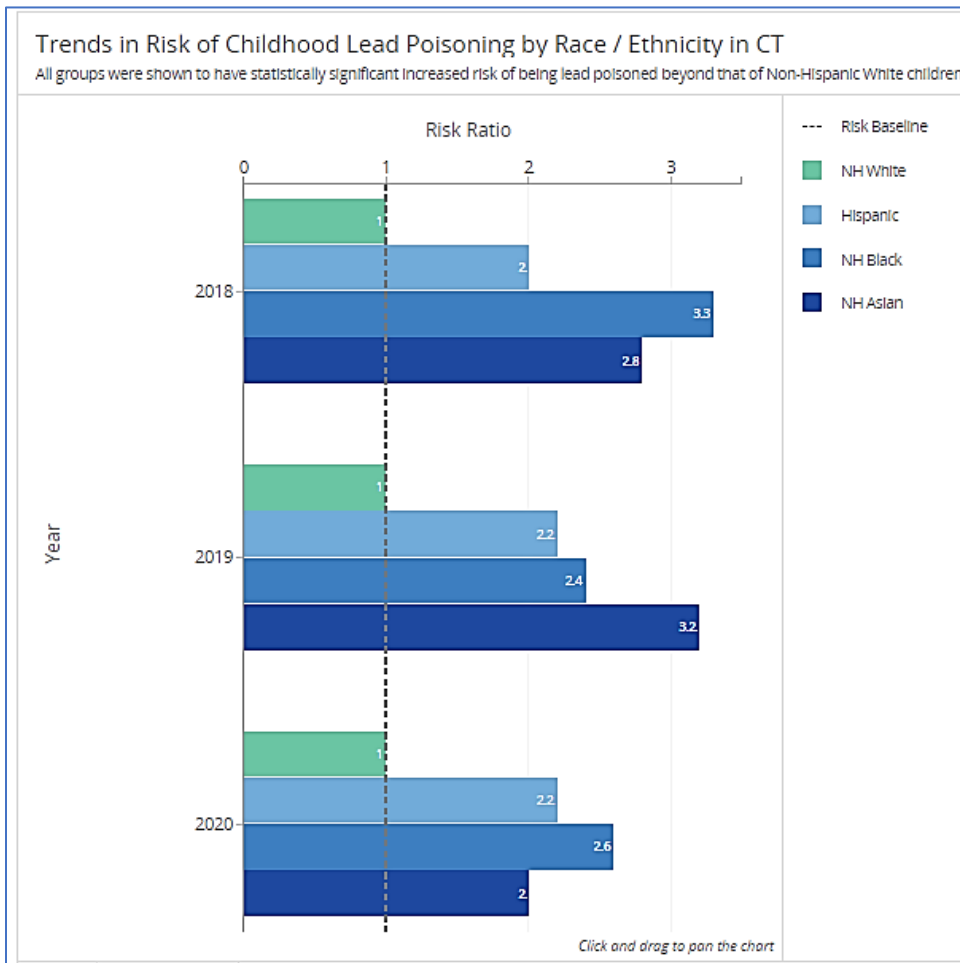
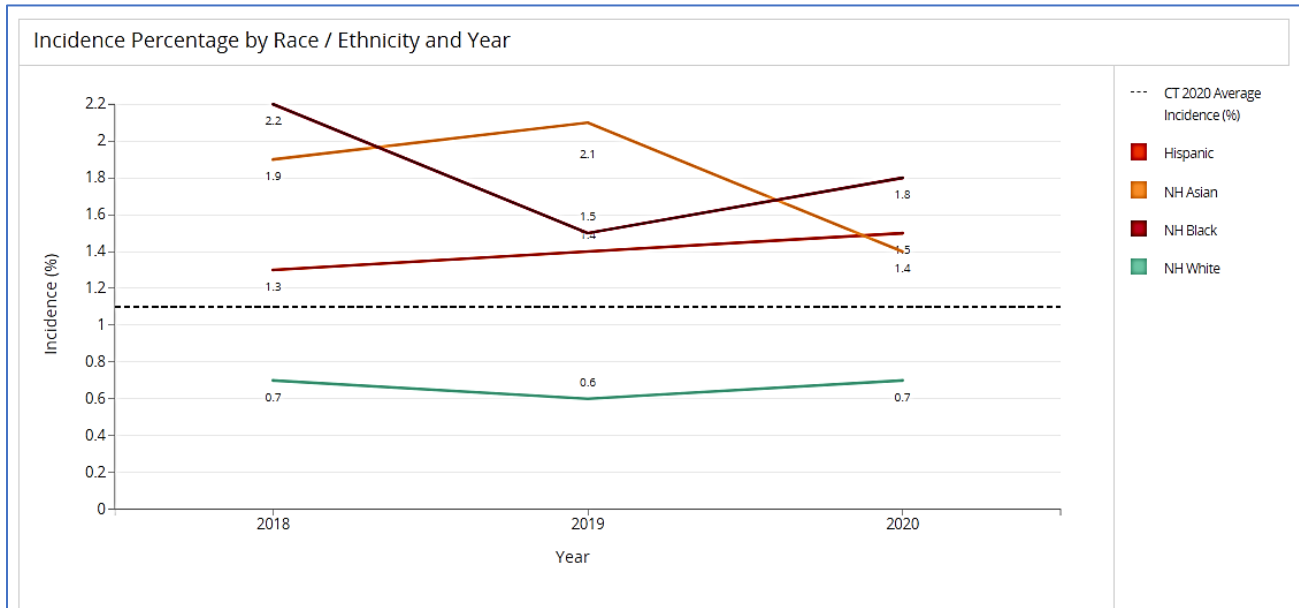
Incidence- Percent of Children under 6 Years Old with Elevated Blood Lead Levels by Year



Changes in Health Disparity

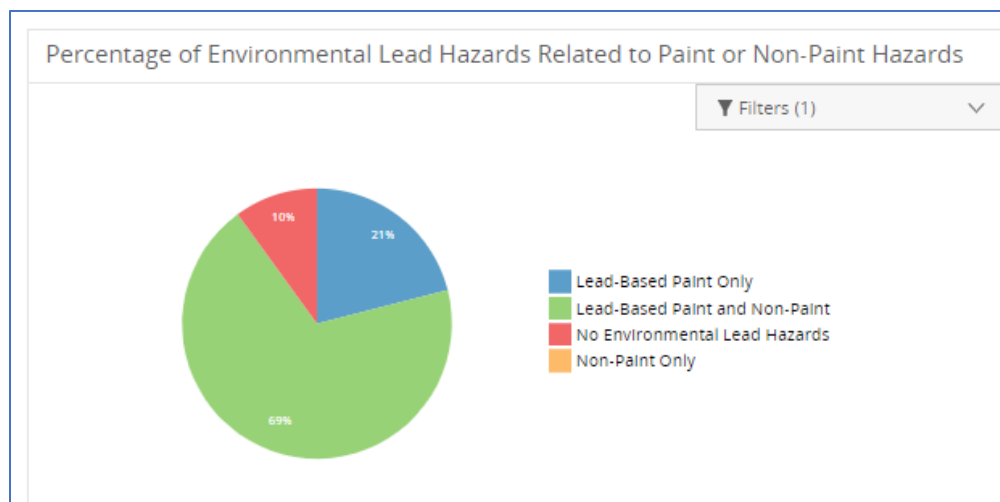
- The incidence rate of Non-Hispanic Blacks, Non-Hispanic Asians and Hispanics was 1.8%, 1.4%, and 1.5% as compared to 0.7% among Non-Hispanic Whites. This translates into significant elevated risks of by at least two-fold for all groups as compared to Non-Hispanic Whites.
- Although the disparity remains, the relative risk has decreased for Blacks and Asian from 3.3 and 2.8 in 2018 to 2.6 and 2, respectively, in 2020. The risk for Hispanics increased from 2 to 2.2 from 2018 to 2020. The reduction in new cases among Blacks correlates with prevention efforts utilizing media campaigns funded by the CDC starting in 2015. It also shows increased prevention efforts are needed toward Hispanic populations.

*NH represents Non-Hispanic



Sources of Lead Exposure

- Deteriorated paint at dwelling units continues to be the most common source of lead exposure among young children. In 2020, 64 residences required a comprehensive or limited lead inspection (when one or more components of a comprehensive lead inspection is not tested). Due to constraints imposed by the pandemic, in person inspections were restricted. Of the 39 dwelling units inspected for children with environmental actionable blood lead levels, 90% were identified with lead paint hazards, 67% were identified with dust hazards, 36% were identified with soil hazards, and 0% were identified with drinking water hazards. The graph below shows the findings as the proportion of lead hazards related to paint and non-paint hazards.



- Of the 1,024 number of children with elevated blood lead levels (5mcg/dL and greater), 5 cities remain the locations of housing that harm these children: **New Haven, Waterbury, Bridgeport, Hartford, and Meriden**. These 5 cities make up 49% of all lead poisoned children throughout Connecticut.

Recommendations

- Support legislative changes to reduce the “reference value” to 3.5 µg/dL to remain in line with the CDC recommendations.
- Support legislative changes to reduce the levels at which epidemiological investigations are required by local health departments.
- Develop and sustain a statewide Lead Advisory Committee.
- Increase communications to pediatric providers regarding the annual screening requirements between 9 and 35 months per [CT General Statute 19a-111g](#).
- Continue to improve prevention and risk reduction strategies by collaborating with stakeholders and community members.
- Heighten focus on high-risk populations and geographic areas with the highest rates to reduce disparities.

Additional information on Connecticut’s 2020 Annual Childhood Lead Poisoning Surveillance including publicly accessible data can be found on the [Connecticut Open Data portal](#).

2020 Number and Percent of Blood Lead Levels among Children under 6 Years Old by Town

Town	Total Confirmed Tests	# <3.5 mcg/dL	% <3.5 mcg/dL	# ≥3.5 mcg/dL	% ≥3.5 mcg/dL	# ≥5 mcg/dL	% ≥5 mcg/dL	# ≥15 mcg/dL	% ≥15 mcg/dL	# ≥20 mcg/dL	% ≥20 mcg/dL
2020 Total	61,317	58,323	95.1	2,994	4.9	1,024	1.7	120	0.2	58	0.1
Andover	40	40	100.0	0	0	0	0.0	0	0.0	0	0.0
Ansonia	401	370	92.3	31	7.7	13	3.2	2	0.5	0	0.0
Ashford	67	66	98.5	1	1.5	0	0.0	0	0.0	0	0.0
Avon	256	248	96.9	8	3.1	0	0.0	0	0.0	0	0.0
Barkhamsted	39	S	S	S	S	0	0.0	0	0.0	0	0.0
Beacon Falls	89	87	97.8	2	2.2	0	0.0	0	0.0	0	0.0
Berlin	231	230	99.6	1	0.4	0	0.0	0	0.0	0	0.0
Bethany	71	70	98.6	1	1.4	0	0.0	0	0.0	0	0.0
Bethel	352	343	97.4	9	2.6	3	0.9	1	0.3	0	0.0
Bethlehem	36	S	S	S	S	0	0.0	0	0.0	0	0.0
Bloomfield	309	298	96.4	11	3.6	0	0.0	0	0.0	0	0.0
Bolton	72	72	100.0	0	0	0	0.0	0	0.0	0	0.0
Bozrah	32	S	S	S	S	S	S	0	0.0	0	0.0
Branford	320	313	97.8	7	2.2	4	1.3	0	0.0	0	0.0
Bridgeport	3,976	3,678	92.5	298	7.5	148	3.7	19	0.5	11	0.3
Bridgewater	10	S	S	S	S	0	0.0	0	0.0	0	0.0
Bristol	981	943	96.1	38	3.9	13	1.3	3	0.3	1	0.1
Brookfield	223	218	97.8	5	2.2	1	0.5	0	0.0	0	0.0
Brooklyn	116	110	94.8	6	5.2	0	0.0	0	0.0	0	0.0
Burlington	142	140	98.6	2	1.4	0	0.0	0	0.0	0	0.0
Canaan	11	S	S	S	S	S	S	0	0.0	0	0.0
Canterbury	83	82	98.8	1	1.2	0	0.0	0	0.0	0	0.0
Canton	129	124	96.1	5	3.9	1	0.8	0	0.0	0	0.0
Chaplin	24	S	S	S	S	0	0.0	0	0.0	0	0.0
Cheshire	230	223	97.0	7	3	0	0.0	0	0.0	0	0.0
Chester	36	S	S	S	S	0	0.0	0	0.0	0	0.0
Clinton	159	156	98.1	3	1.9	0	0.0	0	0.0	0	0.0
Colchester	245	237	96.7	8	3.3	1	0.4	1	0.4	0	0.0
Colebrook	11	11	100.0	0	0	0	0.0	0	0.0	0	0.0
Columbia	66	64	97.0	2	3	0	0.0	0	0.0	0	0.0

2020 Number and Percent of Blood Lead Levels among Children under 6 Years Old by Town

Town	Total Confirmed Tests	# <3.5 mcg/dL	% <3.5 mcg/dL	# ≥3.5 mcg/dL	% ≥3.5 mcg/dL	# ≥5 mcg/dL	% ≥5 mcg/dL	# ≥15 mcg/dL	% ≥15 mcg/dL	# ≥20 mcg/dL	% ≥20 mcg/dL
Cornwall	19	S	S	S	S	S	S	0	0.0	0	0.0
Coventry	195	192	98.5	3	1.5	0	0.0	0	0.0	0	0.0
Cromwell	179	177	98.9	2	1.1	1	0.6	0	0.0	0	0.0
Danbury	1,995	1,921	96.3	74	3.7	22	1.1	3	0.2	0	0.0
Darien	445	437	98.2	8	1.8	2	0.5	1	0.2	1	0.2
Deep River	50	45	90.0	5	10	1	2.0	0	0.0	0	0.0
Derby	225	214	95.1	11	4.9	6	2.7	0	0.0	0	0.0
Durham	89	87	97.8	2	2.2	1	1.1	0	0.0	0	0.0
East Granby	88	85	96.6	3	3.4	1	1.1	0	0.0	0	0.0
East Haddam	102	100	98.0	2	2	0	0.0	0	0.0	0	0.0
East Hampton	131	130	99.2	1	0.8	0	0.0	0	0.0	0	0.0
East Hartford	884	851	96.3	33	3.7	15	1.7	2	0.2	2	0.2
East Haven	458	439	95.9	19	4.1	5	1.1	0	0.0	0	0.0
East Lyme	226	219	96.9	7	3.1	2	0.9	1	0.4	1	0.4
East Windsor	180	172	95.6	8	4.4	2	1.1	0	0.0	0	0.0
Eastford	25	S	S	S	S	0	0.0	0	0.0	0	0.0
Easton	100	96	96.0	4	4	2	2.0	0	0.0	0	0.0
Ellington	290	284	97.9	6	2.1	3	1.0	1	0.3	1	0.3
Enfield	618	586	94.8	32	5.2	8	1.3	1	0.2	0	0.0
Essex	88	76	86.4	12	13.6	1	1.1	0	0.0	0	0.0
Fairfield	963	950	98.7	13	1.3	3	0.3	0	0.0	0	0.0
Farmington	336	332	98.8	4	1.2	2	0.6	1	0.3	1	0.3
Franklin	29	S	S	S	S	S	S	S	S	0	0.0
Glastonbury	267	261	97.8	6	2.2	1	0.4	1	0.4	1	0.4
Goshen	20	S	S	S	S	0	0.0	0	0.0	0	0.0
Granby	114	111	97.4	3	2.6	0	0.0	0	0.0	0	0.0
Greenwich	1,036	981	94.7	55	5.3	2	0.2	0	0.0	0	0.0
Griswold	188	173	92.0	15	8	3	1.6	0	0.0	0	0.0
Groton	746	723	96.9	23	3.1	4	0.5	0	0.0	0	0.0
Guilford	185	182	98.4	3	1.6	0	0.0	0	0.0	0	0.0
Haddam	100	96	96.0	4	4	0	0.0	0	0.0	0	0.0

2020 Number and Percent of Blood Lead Levels among Children under 6 Years Old by Town

Town	Total Confirmed Tests	# <3.5 mcg/dL	% <3.5 mcg/dL	# ≥3.5 mcg/dL	% ≥3.5 mcg/dL	# ≥5 mcg/dL	% ≥5 mcg/dL	# ≥15 mcg/dL	% ≥15 mcg/dL	# ≥20 mcg/dL	% ≥20 mcg/dL
Hamden	862	822	95.4	40	4.6	12	1.4	3	0.4	2	0.2
Hampton	24	S	S	S	S	0	0.0	0	0.0	0	0.0
Hartford	2,718	2,547	93.7	171	6.3	71	2.6	9	0.3	6	0.2
Hartland	5	S	S	S	S	0	0.0	0	0.0	0	0.0
Harwinton	74	71	95.9	3	4.1	0	0.0	0	0.0	0	0.0
Hebron	89	87	97.8	2	2.2	0	0.0	0	0.0	0	0.0
Kent	23	S	S	S	S	S	S	0	0.0	0	0.0
Killingly	281	271	96.4	10	3.6	4	1.4	1	0.4	1	0.4
Killingworth	82	82	100.0	0	0	0	0.0	0	0.0	0	0.0
Lebanon	84	76	90.5	8	9.5	3	3.6	0	0.0	0	0.0
Ledyard	304	295	97.0	9	3	2	0.7	0	0.0	0	0.0
Lisbon	26	S	S	S	S	0	0.0	0	0.0	0	0.0
Litchfield	104	93	89.4	11	10.6	2	1.9	0	0.0	0	0.0
Lyme	12	S	S	S	S	S	S	0	0.0	0	0.0
Madison	203	198	97.5	5	2.5	2	1.0	0	0.0	0	0.0
Manchester	1,092	1,037	95.0	55	5	18	1.7	1	0.1	0	0.0
Mansfield	149	141	94.6	8	5.4	1	0.7	0	0.0	0	0.0
Marlborough	82	78	95.1	4	4.9	1	1.2	0	0.0	0	0.0
Meriden	1,208	1,121	92.8	87	7.2	35	2.9	6	0.5	1	0.1
Middlebury	90	89	98.9	1	1.1	1	1.1	0	0.0	0	0.0
Middlefield	40	40	100.0	0	0	0	0.0	0	0.0	0	0.0
Middletown	561	542	96.6	19	3.4	6	1.1	0	0.0	0	0.0
Milford	887	863	97.3	24	2.7	4	0.5	0	0.0	0	0.0
Monroe	326	322	98.8	4	1.2	1	0.3	0	0.0	0	0.0
Montville	255	243	95.3	12	4.7	0	0.0	0	0.0	0	0.0
Morris	30	30	100.0	0	0	0	0.0	0	0.0	0	0.0
Naugatuck	567	552	97.4	15	2.6	1	0.2	0	0.0	0	0.0
New Britain	1,825	1,760	96.4	65	3.6	32	1.8	6	0.3	3	0.2
New Canaan	364	360	98.9	4	1.1	0	0.0	0	0.0	0	0.0
New Fairfield	175	173	98.9	2	1.1	1	0.6	0	0.0	0	0.0
New Hartford	93	87	93.5	6	6.5	2	2.2	0	0.0	0	0.0

2020 Number and Percent of Blood Lead Levels among Children under 6 Years Old by Town

Town	Total Confirmed Tests	# <3.5 mcg/dL	% <3.5 mcg/dL	# ≥3.5 mcg/dL	% ≥3.5 mcg/dL	# ≥5 mcg/dL	% ≥5 mcg/dL	# ≥15 mcg/dL	% ≥15 mcg/dL	# ≥20 mcg/dL	% ≥20 mcg/dL
New Haven	3,190	2,814	88.2	376	11.8	171	5.4	21	0.7	9	0.3
New London	478	420	87.9	58	12.1	28	5.9	6	1.3	5	1.1
New Milford	362	342	94.5	20	5.5	2	0.6	0	0.0	0	0.0
Newington	461	457	99.1	4	0.9	2	0.4	0	0.0	0	0.0
Newtown	325	322	99.1	3	0.9	0	0.0	0	0.0	0	0.0
Norfolk	13	S	S	S	S	S	S	0	0.0	0	0.0
North Branford	177	174	98.3	3	1.7	1	0.6	0	0.0	0	0.0
North Canaan	45	S	S	S	S	S	S	0	0.0	0	0.0
North Haven	342	336	98.2	6	1.8	2	0.6	0	0.0	0	0.0
North Stonington	61	55	90.2	6	9.8	0	0.0	0	0.0	0	0.0
Norwalk	1,925	1,855	96.4	70	3.6	26	1.4	4	0.2	0	0.0
Norwich	570	504	88.4	66	11.6	29	5.1	4	0.7	2	0.4
Old Lyme	116	110	94.8	6	5.2	2	1.7	0	0.0	0	0.0
Old Saybrook	96	88	91.7	8	8.3	1	1.0	0	0.0	0	0.0
Orange	247	241	97.6	6	2.4	1	0.4	0	0.0	0	0.0
Oxford	150	147	98.0	3	2	2	1.3	0	0.0	0	0.0
Plainfield	244	229	93.9	15	6.1	6	2.5	1	0.4	1	0.4
Plainville	237	233	98.3	4	1.7	1	0.4	0	0.0	0	0.0
Plymouth	148	142	95.9	6	4.1	2	1.4	0	0.0	0	0.0
Pomfret	63	57	90.5	6	9.5	4	6.4	0	0.0	0	0.0
Portland	95	95	100.0	0	0	0	0.0	0	0.0	0	0.0
Preston	62	57	91.9	5	8.1	0	0.0	0	0.0	0	0.0
Prospect	119	113	95.0	6	5	1	0.8	0	0.0	0	0.0
Putnam	138	125	90.6	13	9.4	8	5.8	0	0.0	0	0.0
Redding	105	103	98.1	2	1.9	1	1.0	0	0.0	0	0.0
Ridgefield	317	311	98.1	6	1.9	1	0.3	0	0.0	0	0.0
Rocky Hill	380	368	96.8	12	3.2	3	0.8	1	0.3	0	0.0
Roxbury	19	19	100.0	0	0	0	0.0	0	0.0	0	0.0
Salem	71	68	95.8	3	4.2	0	0.0	0	0.0	0	0.0
Salisbury	27	S	S	S	S	0	0.0	0	0.0	0	0.0
Scotland	5	S	S	S	S	S	S	0	0.0	0	0.0

2020 Number and Percent of Blood Lead Levels among Children under 6 Years Old by Town

Town	Total Confirmed Tests	# <3.5 mcg/dL	% <3.5 mcg/dL	# ≥3.5 mcg/dL	% ≥3.5 mcg/dL	# ≥5 mcg/dL	% ≥5 mcg/dL	# ≥15 mcg/dL	% ≥15 mcg/dL	# ≥20 mcg/dL	% ≥20 mcg/dL
Seymour	314	307	97.8	7	2.2	3	1.0	0	0.0	0	0.0
Sharon	15	S	S	S	S	S	S	0	0.0	0	0.0
Shelton	554	545	98.4	9	1.6	1	0.2	0	0.0	0	0.0
Sherman	23	S	S	S	S	0	0.0	0	0.0	0	0.0
Simsbury	274	268	97.8	6	2.2	0	0.0	0	0.0	0	0.0
Somers	133	126	94.7	7	5.3	1	0.8	0	0.0	0	0.0
South Windsor	399	392	98.2	7	1.8	1	0.3	0	0.0	0	0.0
Southbury	188	184	97.9	4	2.1	1	0.5	0	0.0	0	0.0
Southington	375	368	98.1	7	1.9	2	0.5	0	0.0	0	0.0
Sprague	36	S	S	S	S	S	S	0	0.0	0	0.0
Stafford	157	149	94.9	8	5.1	2	1.3	0	0.0	0	0.0
Stamford	2,858	2,774	97.1	84	2.9	27	0.9	0	0.0	0	0.0
Sterling	39	S	S	S	S	0	0.0	0	0.0	0	0.0
Stonington	183	171	93.4	12	6.6	3	1.6	1	0.6	0	0.0
Stratford	946	914	96.6	32	3.4	10	1.1	2	0.2	1	0.1
Suffield	169	163	96.4	6	3.6	2	1.2	1	0.6	0	0.0
Thomaston	101	96	95.0	5	5	2	2.0	1	1.0	1	1.0
Thompson	115	109	94.8	6	5.2	2	1.7	0	0.0	0	0.0
Tolland	246	237	96.3	9	3.7	0	0.0	0	0.0	0	0.0
Torrington	600	538	89.7	62	10.3	18	3.0	1	0.2	1	0.2
Trumbull	564	552	97.9	12	2.1	4	0.7	1	0.2	0	0.0
Union	10	S	S	S	S	0	0.0	0	0.0	0	0.0
Vernon	619	594	96.0	25	4	4	0.7	0	0.0	0	0.0
Voluntown	35	S	S	S	S	S	S	0	0.0	0	0.0
Wallingford	653	640	98.0	13	2	2	0.3	0	0.0	0	0.0
Warren	12	12	100.0	0	0	0	0.0	0	0.0	0	0.0
Washington	30	S	S	S	S	0	0.0	0	0.0	0	0.0
Waterbury	3,397	3,145	92.6	252	7.4	81	2.4	7	0.2	3	0.1
Waterford	269	257	95.5	12	4.5	2	0.7	0	0.0	0	0.0
Watertown	336	322	95.8	14	4.2	2	0.6	0	0.0	0	0.0
West Hartford	1,084	1,035	95.5	49	4.5	8	0.7	1	0.1	1	0.1

2020 Number and Percent of Blood Lead Levels among Children under 6 Years Old by Town

Town	Total Confirmed Tests	# <3.5 mcg/dL	% <3.5 mcg/dL	# ≥3.5 mcg/dL	% ≥3.5 mcg/dL	# ≥5 mcg/dL	% ≥5 mcg/dL	# ≥15 mcg/dL	% ≥15 mcg/dL	# ≥20 mcg/dL	% ≥20 mcg/dL
West Haven	1,115	1,048	94.0	67	6	27	2.4	3	0.3	1	0.1
Westbrook	72	69	95.8	3	4.2	0	0.0	0	0.0	0	0.0
Weston	127	125	98.4	2	1.6	2	1.6	1	0.8	1	0.8
Westport	371	366	98.7	5	1.3	2	0.5	0	0.0	0	0.0
Wethersfield	467	459	98.3	8	1.7	1	0.2	0	0.0	0	0.0
Willington	69	64	92.8	5	7.2	2	2.9	0	0.0	0	0.0
Wilton	281	277	98.6	4	1.4	1	0.4	0	0.0	0	0.0
Winchester	141	127	90.1	14	9.9	3	2.1	0	0.0	0	0.0
Windham	442	406	91.9	36	8.1	17	3.9	0	0.0	0	0.0
Windsor	458	437	95.4	21	4.6	1	0.2	0	0.0	0	0.0
Windsor Locks	168	161	95.8	7	4.2	1	0.6	0	0.0	0	0.0
Wolcott	185	177	95.7	8	4.3	0	0.0	0	0.0	0	0.0
Woodbridge	127	124	97.6	3	2.4	0	0.0	0	0.0	0	0.0
Woodbury	100	97	97.0	3	3	0	0.0	0	0.0	0	0.0
Woodstock	109	106	97.2	3	2.8	1	0.9	0	0.0	0	0.0

S: Statistics for towns with less than 50 children tested were suppressed if there was any child with an elevated blood lead level.

* Data included are from confirmed results only. Confirmed results are currently defined as either a result derived from a venous blood draw or a result of <5 mcg/dL derived from a capillary draw. Children with a capillary of ≥ 5 mcg/dL are required to have a venous. Estimates of ≥ 3.5 include non-confirmed 3.5 -4.9 capillary results.