



# 2019 EXECUTIVE SUMMARY: CHILDHOOD LEAD POISONING SURVEILLANCE

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*Lead Poisoning Prevention Program*

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## Funding Sources

Centers for Disease Control and Prevention, Grant Award # NUE2EH001451  
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## Background

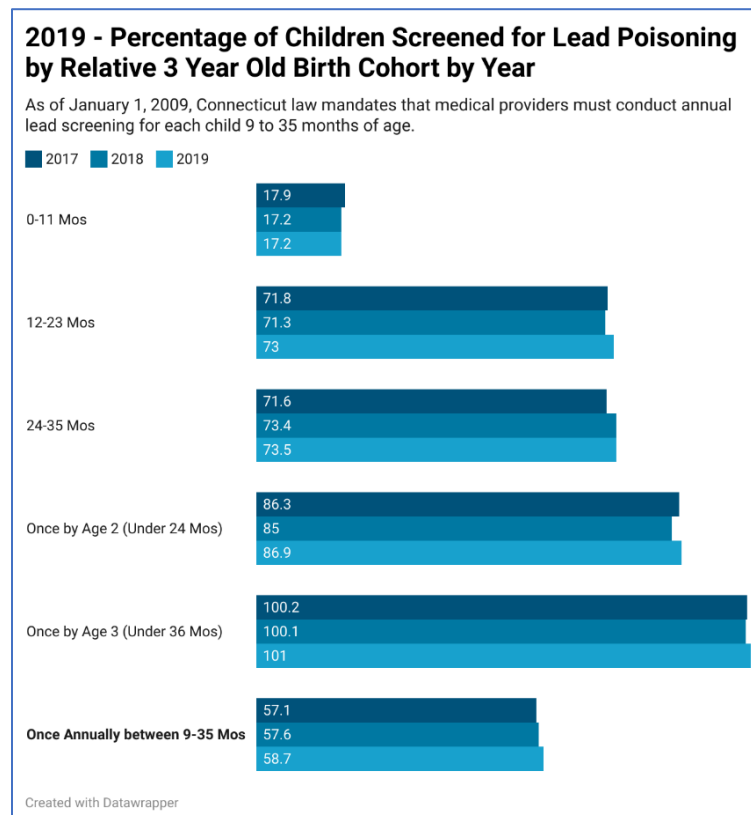
Childhood lead poisoning is the most common pediatric public health problem, yet it is entirely preventable. Lead paint in homes built before 1978 continues to be the most common source of lead exposure. Lead harms children's nervous systems and is associated with reduced IQ, behavioral problems, and 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 2019 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. 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

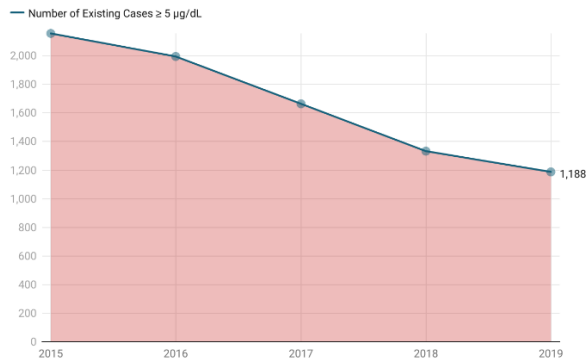
- 71,996 children under the age of 6 were tested for lead.
- Birth cohort analyses of children who turned 3 years old in 2019 shows that 100% of children were tested *at least* one time by the age of 3 years old. However, only 58.7% were tested twice before turning 3 years of age as required by [state law](#). Despite that, the screening rate for the required two annual tests increased from 57.0% in 2016 to 58.7% in 2019.



## Continued Decline in Childhood Lead Poisoning Rates

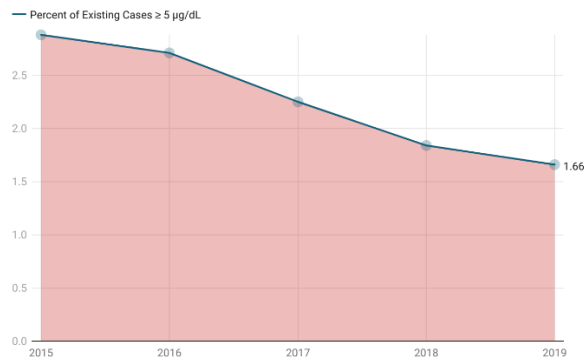
- 1,188 (17 per 1,000) children were tested with elevated blood lead levels  $\geq 5 \mu\text{g}/\text{dL}$ , the CDC reference value.
- There was a 11% reduction in the number of cases.
- The prevalence rate (existing cases) significantly decreased from 2018.

**2019 Prevalence - Number of Children under 6 Years Old with Elevated Blood Lead Levels by Year**



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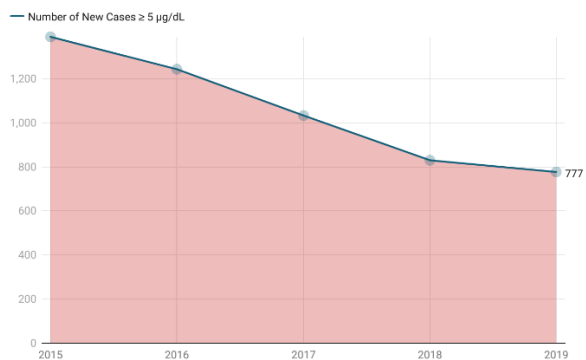
**2019 Prevalence - Percent of Children under 6 Years Old with Elevated Blood Lead Levels by Year**



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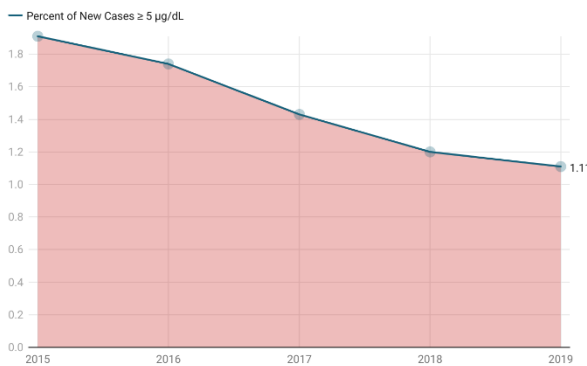
- Of the 1,188 children tested with elevated blood lead levels, 777 (65.4%) were new cases.
- There was a 6% reduction in the number of *new* cases from 2018.
- The incidence rate of blood lead results  $\geq 5 \mu\text{g}/\text{dL}$  did not significantly decrease from 2018 however it did statistically significantly decline from 1.4% in 2017 to 1.1% 2019. The overall risk reduction across 5 years was 42%.

**2019 Incidence- Number of Children under 6 Years Old with Elevated Blood Lead Levels by Year**



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**2019 Incidence- Percent of Children under 6 Years Old with Elevated Blood Lead Levels by Year**



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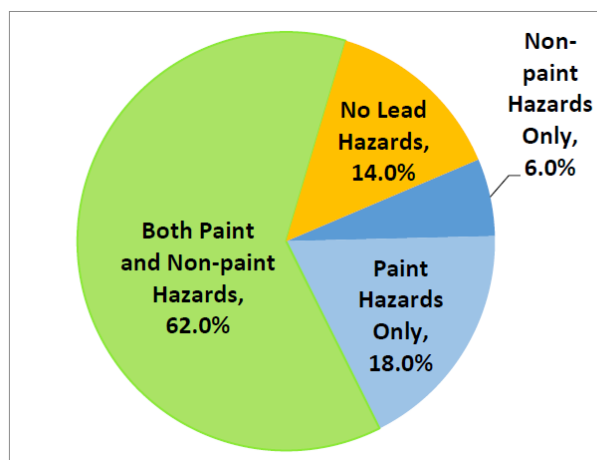
## Changes in Health Disparity

- The incidence rate of Non-Hispanic Blacks, Non-Hispanic Asians and Hispanics was 1.5%, 2.1%, and 1.4% as compared to 0.6% 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 from 3.3 in 2018 to 2.4 in 2019. The risk appeared to increase for Non-Hispanic Asians from 2.8 to 3.2. The risk for Hispanics also increased from 2 to 2.2 from 2018 to 2019. 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.

### Sources of Lead Exposure

- Deteriorated paint at dwelling units continues to be the most common source of lead exposure among young children. In 2019, 60 properties required a comprehensive or limited lead inspection (when one or more components of a comprehensive lead inspection is not tested). Of the 50 dwelling units inspected for children with environmental actionable blood lead levels, 80% were identified with lead paint hazards, 56% were identified with dust hazards, 44% 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 1,188 children with elevated blood lead levels (5 mcg/dL and greater), 5 cities remain the locations of housing that harm the largest proportion of children: **New Haven, Waterbury, Bridgeport, Hartford, and New Britain**. These 5 cities make up 50% of all lead poisoned children throughout Connecticut.

### Recommendations

- 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 annual Childhood Lead Poisoning Surveillance, including publicly accessible town level data, can be found on the [Connecticut Open Data portal](#).

2019 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
<b>2019 Total</b>	<b>71,715</b>	<b>68,232</b>	<b>95.1</b>	<b>3,483</b>	<b>4.9</b>	<b>1,188</b>	<b>1.7</b>	<b>139</b>	<b>0.2</b>	<b>73</b>	<b>0.1</b>
Andover	34	S	S	S	S	S	S	0	0.0	0	0.0
Ansonia	497	471	94.8	26	5.2	15	3.0	2	0.4	1	0.2
Ashford	83	78	94.0	5	6.0	0	0.0	0	0.0	0	0.0
Avon	293	286	97.6	7	2.4	1	0.3	0	0.0	0	0.0
Barkhamsted	52	48	92.3	4	7.7	0	0.0	0	0.0	0	0.0
Beacon Falls	85	84	98.8	1	1.2	0	0.0	0	0.0	0	0.0
Berlin	264	261	98.9	3	1.1	0	0.0	0	0.0	0	0.0
Bethany	66	65	98.5	1	1.5	0	0.0	0	0.0	0	0.0
Bethel	373	368	98.7	5	1.3	1	0.3	0	0.0	0	0.0
Bethlehem	52	50	96.2	2	3.8	2	3.9	0	0.0	0	0.0
Bloomfield	335	327	97.6	8	2.4	0	0.0	0	0.0	0	0.0
Bolton	63	62	98.4	1	1.6	0	0.0	0	0.0	0	0.0
Bozrah	43	S	S	S	S	S	S	S	S	0	0.0
Branford	349	347	99.4	2	0.6	0	0.0	0	0.0	0	0.0
Bridgeport	4,645	4,354	93.7	291	6.3	138	3.0	20	0.4	12	0.3
Bridgewater	23	S	S	S	S	S	S	0	0.0	0	0.0
Bristol	1,168	1,120	95.9	48	4.1	12	1.0	1	0.1	1	0.1
Brookfield	270	267	98.9	3	1.1	0	0.0	0	0.0	0	0.0
Brooklyn	154	149	96.8	5	3.2	2	1.3	0	0.0	0	0.0
Burlington	148	146	98.6	2	1.4	0	0.0	0	0.0	0	0.0
Canaan	7	S	S	S	S	S	S	S	S	S	S
Canterbury	91	87	95.6	4	4.4	0	0.0	0	0.0	0	0.0
Canton	125	119	95.2	6	4.8	0	0.0	0	0.0	0	0.0
Chaplin	34	34	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Cheshire	377	373	98.9	4	1.1	1	0.3	0	0.0	0	0.0
Chester	44	S	S	S	S	0	0.0	0	0.0	0	0.0
Clinton	162	158	97.5	4	2.5	0	0.0	0	0.0	0	0.0
Colchester	340	334	98.2	6	1.8	1	0.3	0	0.0	0	0.0
Colebrook	10	10	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Columbia	70	70	100.0	0	0.0	0	0.0	0	0.0	0	0.0

2019 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	22	S	S	S	S	S	S	0	0.0	0	0.0
Coventry	198	191	96.5	7	3.5	2	1.0	0	0.0	0	0.0
Cromwell	229	224	97.8	5	2.2	2	0.9	0	0.0	0	0.0
Danbury	2,251	2,164	96.1	87	3.9	32	1.4	4	0.2	2	0.1
Darien	432	426	98.6	6	1.4	1	0.2	0	0.0	0	0.0
Deep River	43	43	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Derby	272	260	95.6	12	4.4	4	1.5	2	0.7	1	0.4
Durham	108	106	98.1	2	1.9	0	0.0	0	0.0	0	0.0
East Granby	91	88	96.7	3	3.3	1	1.1	0	0.0	0	0.0
East Haddam	136	130	95.6	6	4.4	0	0.0	0	0.0	0	0.0
East Hampton	169	164	97.0	5	3.0	1	0.6	0	0.0	0	0.0
East Hartford	1,129	1,096	97.1	33	2.9	13	1.2	2	0.2	1	0.1
East Haven	512	497	97.1	15	2.9	5	1.0	0	0.0	0	0.0
East Lyme	234	224	95.7	10	4.3	2	0.9	0	0.0	0	0.0
East Windsor	211	201	95.3	10	4.7	7	3.3	2	1.0	0	0.0
Eastford	23	S	S	S	S	0	0.0	0	0.0	0	0.0
Easton	115	112	97.4	3	2.6	0	0.0	0	0.0	0	0.0
Ellington	298	288	96.6	10	3.4	5	1.7	0	0.0	0	0.0
Enfield	760	734	96.6	26	3.4	7	0.9	0	0.0	0	0.0
Essex	65	62	95.4	3	4.6	1	1.5	0	0.0	0	0.0
Fairfield	1,015	1,003	98.8	12	1.2	1	0.1	0	0.0	0	0.0
Farmington	434	425	97.9	9	2.1	3	0.7	1	0.2	1	0.2
Franklin	33	S	S	S	S	0	0.0	0	0.0	0	0.0
Glastonbury	514	503	97.9	11	2.1	3	0.6	0	0.0	0	0.0
Goshen	30	S	S	S	S	0	0.0	0	0.0	0	0.0
Granby	136	133	97.8	3	2.2	1	0.7	0	0.0	0	0.0
Greenwich	1,121	1,062	94.7	59	5.3	3	0.3	0	0.0	0	0.0
Griswold	262	249	95.0	13	5.0	2	0.8	0	0.0	0	0.0
Groton	932	882	94.6	50	5.4	5	0.5	1	0.1	0	0.0
Guilford	230	225	97.8	5	2.2	2	0.9	0	0.0	0	0.0
Haddam	126	126	100.0	0	0.0	0	0.0	0	0.0	0	0.0

2019 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	981	927	94.5	54	5.5	14	1.4	2	0.2	2	0.2
Hampton	25	25	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Hartford	3,396	3,187	93.8	209	6.2	86	2.5	13	0.4	6	0.2
Hartland	14	S	S	S	S	0	0.0	0	0.0	0	0.0
Harwinton	64	61	95.3	3	4.7	0	0.0	0	0.0	0	0.0
Hebron	114	111	97.4	3	2.6	0	0.0	0	0.0	0	0.0
Kent	31	S	S	S	S	0	0.0	0	0.0	0	0.0
Killingly	323	305	94.4	18	5.6	8	2.5	2	0.6	0	0.0
Killingworth	79	77	97.5	2	2.5	1	1.3	0	0.0	0	0.0
Lebanon	110	105	95.5	5	4.5	0	0.0	0	0.0	0	0.0
Ledyard	347	336	96.8	11	3.2	0	0.0	0	0.0	0	0.0
Lisbon	40	S	S	S	S	0	0.0	0	0.0	0	0.0
Litchfield	78	74	94.9	4	5.1	0	0.0	0	0.0	0	0.0
Lyme	9	9	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Madison	219	215	98.2	4	1.8	0	0.0	0	0.0	0	0.0
Manchester	1,346	1,254	93.2	92	6.8	38	2.8	2	0.2	1	0.1
Mansfield	166	160	96.4	6	3.6	2	1.2	0	0.0	0	0.0
Marlborough	97	95	97.9	2	2.1	0	0.0	0	0.0	0	0.0
Meriden	1,610	1,528	94.9	82	5.1	34	2.1	4	0.3	2	0.1
Middlebury	109	104	95.4	5	4.6	1	0.9	0	0.0	0	0.0
Middlefield	50	50	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Middletown	718	695	96.8	23	3.2	5	0.7	0	0.0	0	0.0
Milford	908	877	96.6	31	3.4	5	0.6	0	0.0	0	0.0
Monroe	311	301	96.8	10	3.2	3	1.0	0	0.0	0	0.0
Montville	338	326	96.4	12	3.6	3	0.9	1	0.3	0	0.0
Morris	30	S	S	S	S	0	0.0	0	0.0	0	0.0
Naugatuck	727	702	96.6	25	3.4	5	0.7	0	0.0	0	0.0
New Britain	2,329	2,233	95.9	96	4.1	47	2.0	6	0.3	4	0.2
New Canaan	323	321	99.4	2	0.6	0	0.0	0	0.0	0	0.0
New Fairfield	179	175	97.8	4	2.2	1	0.6	0	0.0	0	0.0
New Hartford	92	87	94.6	5	5.4	1	1.1	0	0.0	0	0.0

2019 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	3,840	3,428	89.3	412	10.7	190	5.0	21	0.6	13	0.3
New London	585	508	86.8	77	13.2	27	4.6	4	0.7	1	0.2
New Milford	461	452	98.0	9	2.0	4	0.9	1	0.2	1	0.2
Newington	423	418	98.8	5	1.2	2	0.5	1	0.2	0	0.0
Newtown	340	334	98.2	6	1.8	1	0.3	0	0.0	0	0.0
Norfolk	11	S	S	S	S	S	S	0	0.0	0	0.0
North Branford	175	173	98.9	2	1.1	1	0.6	0	0.0	0	0.0
North Canaan	58	52	89.7	6	10.3	3	5.2	0	0.0	0	0.0
North Haven	322	315	97.8	7	2.2	1	0.3	0	0.0	0	0.0
North Stonington	85	84	98.8	1	1.2	0	0.0	0	0.0	0	0.0
Norwalk	2,016	1,944	96.4	72	3.6	17	0.8	2	0.1	1	0.1
Norwich	1,030	938	91.1	92	8.9	36	3.5	4	0.4	2	0.2
Old Lyme	108	103	95.4	5	4.6	2	1.9	0	0.0	0	0.0
Old Saybrook	106	104	98.1	2	1.9	1	0.9	0	0.0	0	0.0
Orange	243	241	99.2	2	0.8	1	0.4	0	0.0	0	0.0
Oxford	169	165	97.6	4	2.4	2	1.2	0	0.0	0	0.0
Plainfield	316	292	92.4	24	7.6	9	2.9	1	0.3	1	0.3
Plainville	245	243	99.2	2	0.8	0	0.0	0	0.0	0	0.0
Plymouth	143	135	94.4	8	5.6	1	0.7	0	0.0	0	0.0
Pomfret	65	64	98.5	1	1.5	1	1.5	0	0.0	0	0.0
Portland	143	140	97.9	3	2.1	1	0.7	0	0.0	0	0.0
Preston	72	70	97.2	2	2.8	0	0.0	0	0.0	0	0.0
Prospect	155	149	96.1	6	3.9	0	0.0	0	0.0	0	0.0
Putnam	183	166	90.7	17	9.3	7	3.8	1	0.6	1	0.6
Redding	117	115	98.3	2	1.7	1	0.9	0	0.0	0	0.0
Ridgefield	334	324	97.0	10	3.0	0	0.0	0	0.0	0	0.0
Rocky Hill	481	457	95.0	24	5.0	10	2.1	1	0.2	0	0.0
Roxbury	17	17	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Salem	85	80	94.1	5	5.9	0	0.0	0	0.0	0	0.0
Salisbury	28	S	S	S	S	0	0.0	0	0.0	0	0.0
Scotland	7	7	100.0	0	0.0	0	0.0	0	0.0	0	0.0



2019 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	309	296	95.8	13	4.2	4	1.3	0	0.0	0	0.0
Sharon	13	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	0	0.0	0	0.0	0	0.0
Shelton	667	644	96.6	23	3.4	3	0.5	0	0.0	0	0.0
Sherman	31	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	0	0.0	0	0.0	0	0.0
Simsbury	311	305	98.1	6	1.9	0	0.0	0	0.0	0	0.0
Somers	148	145	98.0	3	2.0	0	0.0	0	0.0	0	0.0
South Windsor	433	423	97.7	10	2.3	2	0.5	0	0.0	0	0.0
Southbury	209	202	96.7	7	3.3	2	1.0	0	0.0	0	0.0
Southington	584	572	97.9	12	2.1	3	0.5	1	0.2	1	0.2
Sprague	71	68	95.8	3	4.2	0	0.0	0	0.0	0	0.0
Stafford	171	152	88.9	19	11.1	4	2.3	0	0.0	0	0.0
Stamford	3,069	2,979	97.1	90	2.9	22	0.7	4	0.1	2	0.1
Sterling	46	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	0	0.0
Stonington	214	202	94.4	12	5.6	2	0.9	0	0.0	0	0.0
Stratford	1,070	1,038	97.0	32	3.0	13	1.2	2	0.2	1	0.1
Suffield	203	199	98.0	4	2.0	0	0.0	0	0.0	0	0.0
Thomaston	107	99	92.5	8	7.5	3	2.8	0	0.0	0	0.0
Thompson	138	130	94.2	8	5.8	5	3.6	0	0.0	0	0.0
Tolland	277	269	97.1	8	2.9	1	0.4	0	0.0	0	0.0
Torrington	668	596	89.2	72	10.8	20	3.0	1	0.2	1	0.2
Trumbull	665	644	96.8	21	3.2	0	0.0	0	0.0	0	0.0
Union	2	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Vernon	654	623	95.3	31	4.7	18	2.8	3	0.5	2	0.3
Voluntown	29	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	0	0.0	0	0.0
Wallingford	720	701	97.4	19	2.6	5	0.7	0	0.0	0	0.0
Warren	15	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	0	0.0	0	0.0	0	0.0
Washington	27	27	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Waterbury	4,330	3,967	91.6	363	8.4	138	3.2	16	0.4	7	0.2
Waterford	294	275	93.5	19	6.5	1	0.3	0	0.0	0	0.0
Watertown	416	399	95.9	17	4.1	2	0.5	1	0.2	0	0.0
West Hartford	1,188	1,145	96.4	43	3.6	8	0.7	1	0.1	1	0.1

2019 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	1,229	1,155	94.0	74	6.0	25	2.0	2	0.2	2	0.2
Westbrook	59	58	98.3	1	1.7	0	0.0	0	0.0	0	0.0
Weston	116	116	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Westport	368	362	98.4	6	1.6	2	0.5	0	0.0	0	0.0
Wethersfield	488	483	99.0	5	1.0	0	0.0	0	0.0	0	0.0
Willington	88	84	95.5	4	4.5	3	3.4	0	0.0	0	0.0
Wilton	269	265	98.5	4	1.5	0	0.0	0	0.0	0	0.0
Winchester	200	165	82.5	35	17.5	10	5.0	0	0.0	0	0.0
Windham	513	464	90.4	49	9.6	21	4.1	3	0.6	1	0.2
Windsor	560	538	96.1	22	3.9	2	0.4	1	0.2	0	0.0
Windsor Locks	221	210	95.0	11	5.0	4	1.8	0	0.0	0	0.0
Wolcott	234	223	95.3	11	4.7	2	0.9	0	0.0	0	0.0
Woodbridge	142	139	97.9	3	2.1	1	0.7	0	0.0	0	0.0
Woodbury	110	104	94.5	6	5.5	1	0.9	0	0.0	0	0.0
Woodstock	125	120	96.0	5	4.0	1	0.8	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.