Keeping Connecticut Healthy

DPH

Connecticut Department of Public Health

Childhood Lead Poisoning Prevention and Control

2016 Annual Disease Surveillance Report

State of Connecticut
Department of Public Health
Lead and Healthy Homes Program

This report describes the rates of childhood lead testing by pediatricians, the rates of childhood lead poisoning for children under the age of six, the identification and frequency of lead hazards in residential properties, and the effectiveness of the actions taken by local health departments and districts in response to reported cases of severe childhood lead poisoning.

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Chapter 2. UNDERSTANDING THE LEAD DATA

Connecticut General Statutes (CGS) Section 19a-110. Report of lead poisoning, requires laboratory reporting of blood lead tests for all individuals. Laboratories are required to submit blood lead test reports (i.e., findings ≥10 µg/dL of lead in blood) within 48 hours of receipt of the test result to the Connecticut Department of Public Health (CT DPH) and the local health department serving the town where the person (child) resides. At least monthly, laboratories are also required to submit to the CT DPH a comprehensive report of all blood lead test results for Connecticut residents.

The CT DPH has maintained a blood lead surveillance system since 1994. In 2010, the CT DPH Lead and Healthy Homes Program upgraded its blood lead surveillance system to a new, more comprehensive web-based system. The system has enhanced the ability to merge birth records and comprehensive environmental data with childhood blood lead data. The surveillance system has had a significant positive impact on the Lead and Healthy Homes Program's capability to utilize surveillance data to enhance child case management efforts. The web-based feature of the system enables secure and remote access by local health department staff. Case management features are built into the system for both child and property case management activities at the local health department level. The system has been offered to local health departments since May 2011. Sixty-five health departments have adopted the CT DPH surveillance system and utilize it on an ongoing basis.

Important Business Rules:

Lead Screening/Testing – A person is considered to have a lead testing if he or she was tested for lead with either a venous or capillary blood draw.

Lead Poisoning – Children who are diagnosed with a blood lead level of ≥5 µg/dL are considered to be lead poisoned. In 2013, the CT DPH lowered the case management action level from 10 µg/dL to 5 µg/dL to correspond with the Centers for Disease Control and Prevention (CDC) reference value (2012, June 7. CDC Response to Advisory Committee on Childhood Lead Poisoning Prevention Recommendations in "*Low Level Lead Exposure Harms Children: A Renewed Call of Primary Prevention*" retrieved October 31, 2012 from http://www.cdc.gov/nceh/lead/acclpp/cdc_response_lead_exposure_recs.pdf). Blood lead levels as low as 5 µg/dL have been shown to affect IQ, ability to pay attention, and academic achievement. This new reference value is based on the children ages 1-5 years who are in the highest 2.5% of children when tested for lead in their blood by CDC's National Health and Nutrition Examination Survey (NHANES).

Chapter 4. PREVALENCE OF CHILDHOOD LEAD POISONING

Prevalence of childhood lead poisoning is defined as the proportion of children under six years of age with a confirmed lead test in CY 2016 whose blood lead levels were ≥5 µg/dL. The previous reference value in place since 1991 was 10 µg/dL. A growing body of research identified that blood lead levels below 10 µg/dL can harm children in terms of their IQ, cognitive functions, and academic achievement. 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 and district departments of health are required to initiate public health case management actions for children with a confirmed blood level of ≥5 µg/dL.

Prevalence includes child lead poisoning cases that may have occurred prior to 2016, and remained lead poisoning cases into CY 2016.

Prevalence of Environmental Intervention Blood Lead Levels –

Prevalence of childhood lead poisoning cases of ≥15 µg/dL is defined as the proportion of children under 6 years of age with a confirmed lead test in CY 2016 whose blood lead levels were ≥15 µg/dL.

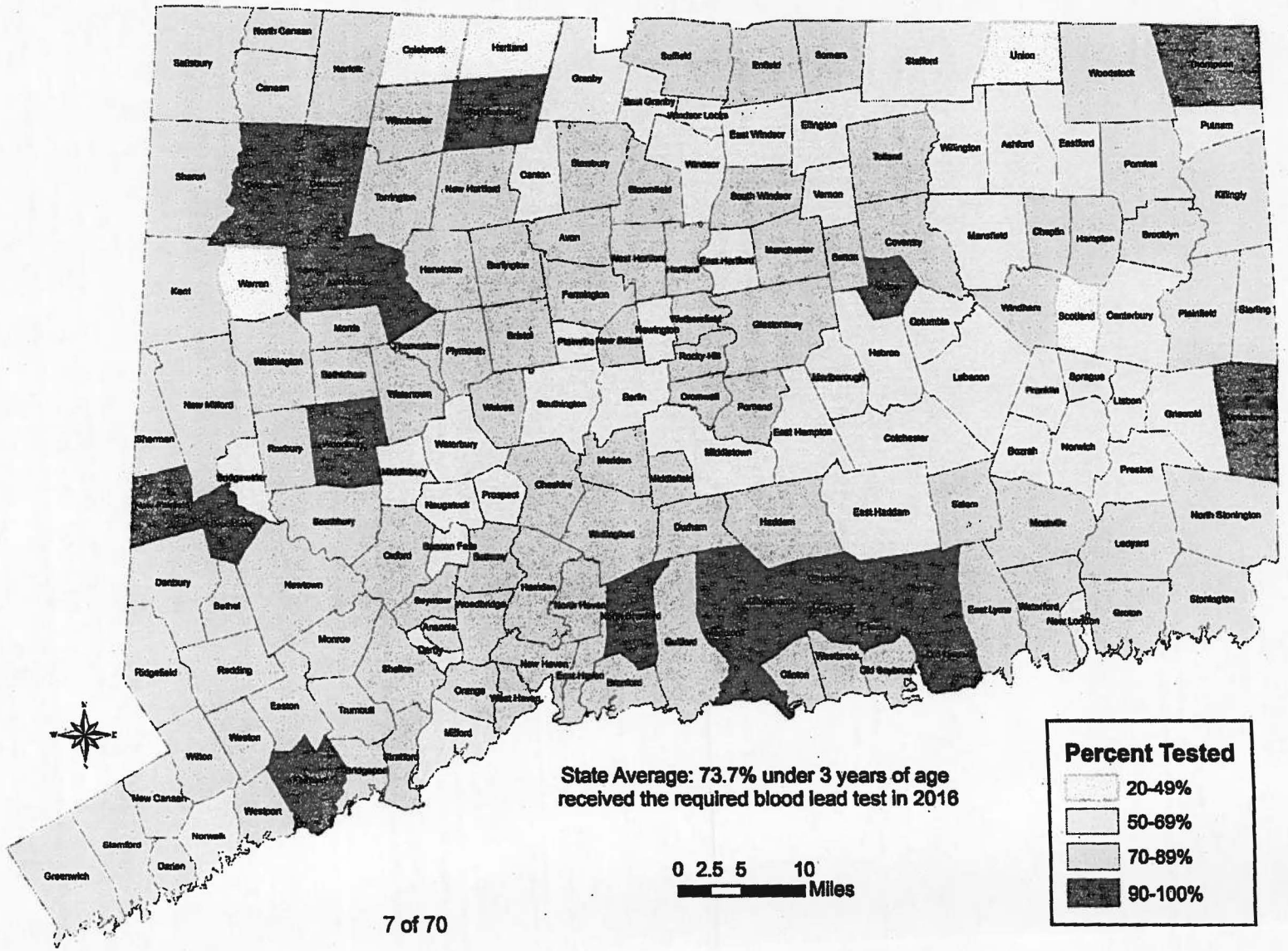
Prevalence of childhood lead poisoning cases ≥20 µg/dL is defined as the proportion of children under 6 years of age with a confirmed lead test in CY 2016 whose blood lead levels were ≥20 µg/dL.

[#] "Experts now use a reference level of 5 micrograms per deciliter to identify children with blood lead levels that are much higher than most children's levels. This new level is based on the U.S. population of children ages 1-5 years who are in the highest 2.5% of children when tested for lead in their blood. The current reference value is based on NHANES data from 2007-2008 and 2009-2010. CDC will update the reference value every 4 years using the two most recent NHANES surveys." (Centers for Disease Control and Prevention. Childhood Lead Poisoning Prevention Program. Update on Blood Lead Levels in Children. Accessed from: http://www.cdc.gov/nceh/lead/ACCLPP/blood_lead_levels.htm. Accessed on 5/13/2016)

CY 2016 Data (<6 years old)		Numbers and Percents of Confirmed Blood Lead Levels among Children Aged Less Than Six Years with a Confirmed Lead Test											
		Number of Children with Confirmed Test	0–4 µg/dL		Cumulative Statistics							
					≥ 5 µg/dL		≥ 10 µg/dL		≥ 15 µg/dL		≥ 20 µg/dL	
			Number	%	Number	%	Number	%	Number	%	Number	%
81	Middlebury	105	103	98.1	2	1.9	1	1.0	0	0.0	0	0.0
82	Middlefield	61	61	100.0	0	0.0	0	0.0	0	0.0	0	0.0
83	Middletown	912	899	98.6	13	1.4	2	0.2	1	0.1	1	0.1
84	Milford	749	743	99.2	6	0.8	0	0.0	0	0.0	0	0.0
85	Monroe	290	289	99.7	1	0.3	0	0.0	0	0.0	0	0.0
86	Montville	262	258	98.5	4	1.5	1	0.4	0	0.0	0	0.0
87	Morris	23	23	100.0	0	0.0	0	0.0	0	0.0	0	0.0
88	Naugatuck	689	680	98.7	9	1.3	1	0.1	0	0.0	0	0.0
89	New Britain	2675	2606	97.4	69	2.6	22	0.8	16	0.6	6	0.2
90	New Canaan	336	333	99.1	3	0.9	1	0.3	1	0.3	0	0.0
91	New Fairfield	188	188	100.0	0	0.0	0	0.0	0	0.0	0	0.0
92	New Hartford	81	80	98.8	1	1.2	1	1.2	0	0.0	0	0.0
93	New Haven	4108	3794	92.4	314	7.6	67	1.6	21	0.5	12	0.3
94	New London	688	654	95.1	34	4.9	9	1.3	2	0.3	1	0.1
95	New Milford	426	422	99.1	4	0.9	0	0.0	0	0.0	0	0.0
96	Newington	386	385	99.7	1	0.3	0	0.0	0	0.0	0	0.0
97	Newtown	264	262	99.2	2	0.8	1	0.4	0	0.0	0	0.0
98	Norfolk	15	14	93.3	1	6.7	0	0.0	0	0.0	0	0.0
99	North Branford	199	199	100.0	0	0.0	0	0.0	0	0.0	0	0.0
100	North Canaan	36	34	94.4	2	5.6	0	0.0	0	0.0	0	0.0
101	North Haven	320	319	99.7	1	0.3	1	0.3	0	0.0	0	0.0
102	North Stonington	80	80	100.0	0	0.0	0	0.0	0	0.0	0	0.0
103	Norwalk	2046	2013	98.4	33	1.6	7	0.3	3	0.1	1	0.0
104	Norwich	841	787	93.6	54	6.4	15	1.8	10	1.2	8	1.0
105	Old Lyme	84	84	100.0	0	0.0	0	0.0	0	0.0	0	0.0

Map 3.1.

By Town Blood Lead Screening Rate
Children 9 Months to 2 Years Old, Connecticut 2016



Map 3.2.

Percentage of Children Who Received Two Annual Lead Tests by Age 3* Connecticut Birth Cohort 2013