EARLY ADOPTERS

State Approaches to Testing School Drinking Water for Lead in the United States

STATE PROFILE

New York

Summary of Program Features

New York initiated a school drinking water lead testing policy in September 2016. This summary is based on a review of program documents collected between January 2018 – June 2018 and communication with New York state contacts.

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School Drinking Water Testing Policy/Program Overview

Policy/Program Feature	Information from Policy/Program Documents	Additional Information from Communication with State
Background		
Name	Lead Testing in School Drinking Water[1]	
Date(s) of Water Policy/Program	June to December 2016;[1,2] Extended to 2017	September to December 2016[3,4]
Issuing Authority	State legislature[2] or state government department[1]	State legislature[3,4]
Agency Responsible for Program Management	New York State Department of Health[1]	
Policy or Program	Policy[1,2]	
One-time or Surveillance Program	Surveillance[1,2]	
Mandatory/Voluntary for Schools	Mandatory[1,2]	Mandatory for public schools and Boards of Cooperative Educational Services (BOCES)[3,4]
Partnership with Local/Community Water Supplier/System	Not specified	
Other Key Partnerships	Not specified	
References or Uses the EPA 3Ts	Yes[1]	
Program Coverage		
School Type (Public, private, charter)	Public schools[1,2]	Public schools and BOCES[3,4]
Grade Levels	Pre-Kindergarten – grade 12[1]	
Includes Testing for Lead	Yes[1,2]	
Includes Treatment/Remediation	Yes[1,2]	
Schools Eligible to Participate		
All schools	Not applicable	Yes, for all public schools and BOCES[3,4]
OR (select all that apply)		
Schools of a certain building age	Not specified	
Schools that serve certain ages/ demographics	Not specified	
Schools that are their own local/ community water supplier	Yes[1]	
Schools that use local/community water supplier	Yes[1,2]	
Schools that have not received a waiver	Yes[1,2]	
Funding		
Funding Source	Schools pay but may be eligible for reimbursement of approved expenses[1,2]	Schools pay but will be eligible for reimbursement of approved expenses[3,4]
Funding Amount	Not specified	
Covers Sampling at Taps	Not specified	No[3,4]
Covers Testing in Lab	Other: schools pay but may be eligible for reimbursement of approved expenses[1,2]	Yes, schools pay but will be eligible for reimbursement of approved expenses[3,4]
Covers Treatment/Remediation	Other: schools pay but may be eligible for reimbursement of approved expenses[1,2]	

Sampling Information

Policy/Program Feature	Information from Policy/Program Documents	Additional Information from Communication with State
Background		
Sampling/Testing Process One-Time or Recurring	Recurring (periodic[2] or every 5 years[1])	Recurring (every 5 years)[3,4]
Number of Buildings/Facilities Sampled (All or a Portion?)	A portion (those that are occupied by children and have not been deemed lead-free)[1,2]	
Types of Taps Sampled	Drinking[1,2] and cooking[1]	All taps that are currently, or could potentially, be used for drinking and cooking, as determined by School Superintendent[3,4]
Number of Taps Sampled Per School/ Building (All or a Portion?)	A portion (potable water sources currently or potentially used for drinking or cooking purposes)[1]	
Initial Sampling at Taps		
Stagnation Period	8 to 18 hours[1]	Water should remain motionless in pipes between 8-18 hours during normal school operating conditions.[3,4]
First Draw	Yes[1,2]	
Flushing Period	Not specified	
Second Draw (Flushed Sample)	Not specified	
Additional Initial Samples	Not specified	
Sample Size of Water	250 mL[1]	
Action Level for Lead	Consistent with schools who serve as public water supplier[2] or 15 ppb[1]	15 ppb[3,4]
Action Required When Samples Exceed Action Level for Lead		
Follow-Up Draws	Yes, if initial results are elevated[1,2]	
Flushing Period	Not specified	
Sample Size of Water	Not specified	
Additional Draws	Yes, until results are below action level[1,2]	

Testing/Remediation/Communication Information

Policy/Program Feature	Information from Policy/Program Documents	Additional Information from Communication with State
Testing		
Type of Lab Used for Testing	State-approved lab[1,2]	
Sample(s) that Require Action if Results are Elevated	First draw[1,2]	
Remediation		
Short-Term Measures	Yes, EPA-approved measures are listed[1,2]	
Long -Term Measures	Yes, EPA-approved measures are listed[2]	
Communication		
Groups Notified of Test Results	Parents, government, general public,[1,2] school staff[1]	Parents/guardians, school staff and local health department are notified when results exceed action level[3,4]
Type of Results Shared (outlet level, building level, school level)	Not specified	Outlet level when action level is exceeded; building level summary for all results to State Health Department[3,4]

Sources:

1. New York State Department of Health. Emergency Rulemaking: Lead Testing in School Drinking Water; 2016. https://docs.dos.ny.gov/info/register/2016/sept21/pdf/rulemaking.pdf. Accessed April 3, 2018.
2. State of New York. AN ACT to Amend the Public Health Law and the Education Law, in Relation to Potable Water Testing and Standards in Schools; 2016. Senate Bill 8158. http://legislation.nysenate.gov/pdf/bills/2015/S8158. Accessed March 5, 2018.
3. Email Communication with New York State Department of Health Contact. June 2018.
4. New York State Department of Health. Lead Testing of School Drinking Water. Health.NY.Gov. https://www.health.ny.gov/environmental/water/drinking/lead/lead_testing_of_school_drinking_water.htm. July 2017. Accessed March 5, 2018.

Summary of Water Test Results

This report features data collected through New York State's Lead Testing in School Drinking Water, initiated in September 2016. Data provided by the state program on April 5, 2018 documented findings from 398,047 drinking water samples that were collected from 4,336 organizations. The state's program was ongoing through December 2016, but it was extended through 2017. While many states may collect water quality data from a number of organizations, this state profile is focused on water quality testing completed in public schools serving grades pre-Kindergarten (PK)-12.

Table 1: New York's Lead Testing in School Drinking Water Results Summary

In New York, the level of lead found in a drinking water sample that warrants action, or the "action level," is 15 ppb for a water sample of 250mL. This summary describes "first draw" samples taken in New York's Lead Testing in School Drinking Water Program. The "first draw" is a sample that is taken from the tap as soon as the water is turned on. Additional "draws" may be taken according to the state's procedures.

In New York, data were reported by school. Each school reported the number of samples taken and the number of samples above and below the "action level."

- In New York, eighty-five percent (85%) of public schools serving grades PK-12 had one or more draws at or above the state's action level for lead.
- In New York, twelve percent (12%) of first draw samples tested from New York public schools serving grades PK-12 had a lead content that was at or above the state's action level for lead.

	All schools providing drinking water quality testing results	Public schools serving grades PK-12 providing drinking water lead testing results*
School-Level Summary		
Number of schools with test result for lead	4,317	3,619
Average (min/max) number of samples taken at each school	92.0 (1, 861)	98.1 (1, 861)
Number (%) of schools with one or more samples at or above the State's "action level"	3,565 (83%)	3,072 (85%)
Outlet/Tap-Level Summary		
Number of samples	397,063	355,087
Number (%) of samples at or above the State's "action level"	47,764 (12%)	44,063 (12%)

** See table 3 for characterization of schools*

Table 1a: New York's Lead Testing in School Drinking Water Results Summary *By School Level* among the 3,619 Public Schools Serving Grades PK-12 Providing Drinking Water Lead Testing Results *

	Primary	Middle	High	Middle/High
School-Level Summary				
Number of schools with test result for lead	2,325	590	624	80
Average (min/max) number of samples taken at each school	88 (1, 861)	96.7 (1, 436)	135.7 (7, 632)	108.2 (14, 289)
Number (%) of schools with one or more samples at or above the State's "action level"	1,939 (83%)	513 (87%)	556 (89%)	64 (80%)
Outlet/Tap-Level Summary				
Number of samples	204,683	57,063	84,684	8,657
Number (%) of samples at or above the State's "action level"	18,709 (9%)	8,913 (16%)	15,204 (18%)	1,237 (14%)

** See table 3 for characterization of schools*

Table 1b: New York's Lead Testing in School Drinking Water Results Summary *By Metro Status or Locale*, among the 3,619 Public Schools Serving Grades PK-12 Providing Drinking Water Lead Testing Results*

	City	Suburban	Town	Rural
School-Level Summary				
Number of schools with test result for lead	1,135	1,433	344	707
Average (min/max) number of samples taken at each school	100.9 (1, 484)	99.1 (1, 707)	93.4 (2, 353)	93.8 (1, 861)
Number (%) of schools with one or more samples at or above the State's "action level"	1,011 (89%)	1,213 (85%)	268 (78%)	580 (82%)
Outlet/Tap-Level Summary				
Number of samples	114,568	142,076	32,121	66,322
Number (%) of samples at or above the State's "action level"	9,252 (8%)	21,374 (15%)	3,922 (12%)	9,515 (14%)

** See table 3 for characterization of schools*

Additional Details on Findings from New York

School Eligibility for New York's Lead Testing in School Drinking Water

Eligible schools according to available program documents:

- Public schools serving grades PK – 12
- Board of Cooperative Education Services (BOCES) schools serving grades PK – 12
- Schools that use a community water source
- Schools that are their own community water source
- Schools that have not received a waiver

Characteristics of Schools in New York's Lead Testing in School Drinking Water

The National Center for Educational Statistics (NCES) is the primary federal entity for collecting and analyzing educational data in the United States. Each year, the NCES reports a directory of all public schools in the United States and their characteristics in the Common Core of Data.

In order to better understand the characteristics of schools that were being served by New York's Lead Testing in School Drinking Water program, we matched demographic data on the schools and students available in the NCES Common Core of Data (2015-2016) school directory to the schools present in the data available from the state's drinking water testing program. We matched these schools using the school and district names and other public data sources.

We identified 3,619 New York State schools with drinking water lead testing results provided by the New York's Lead Testing in School Drinking Water that were also present in the 2015-2016 NCES Common Core of Data. These 3,619 schools represent 84% of the 4,317 schools serving grades PK-12 that had drinking water lead testing results reported in the state program data.

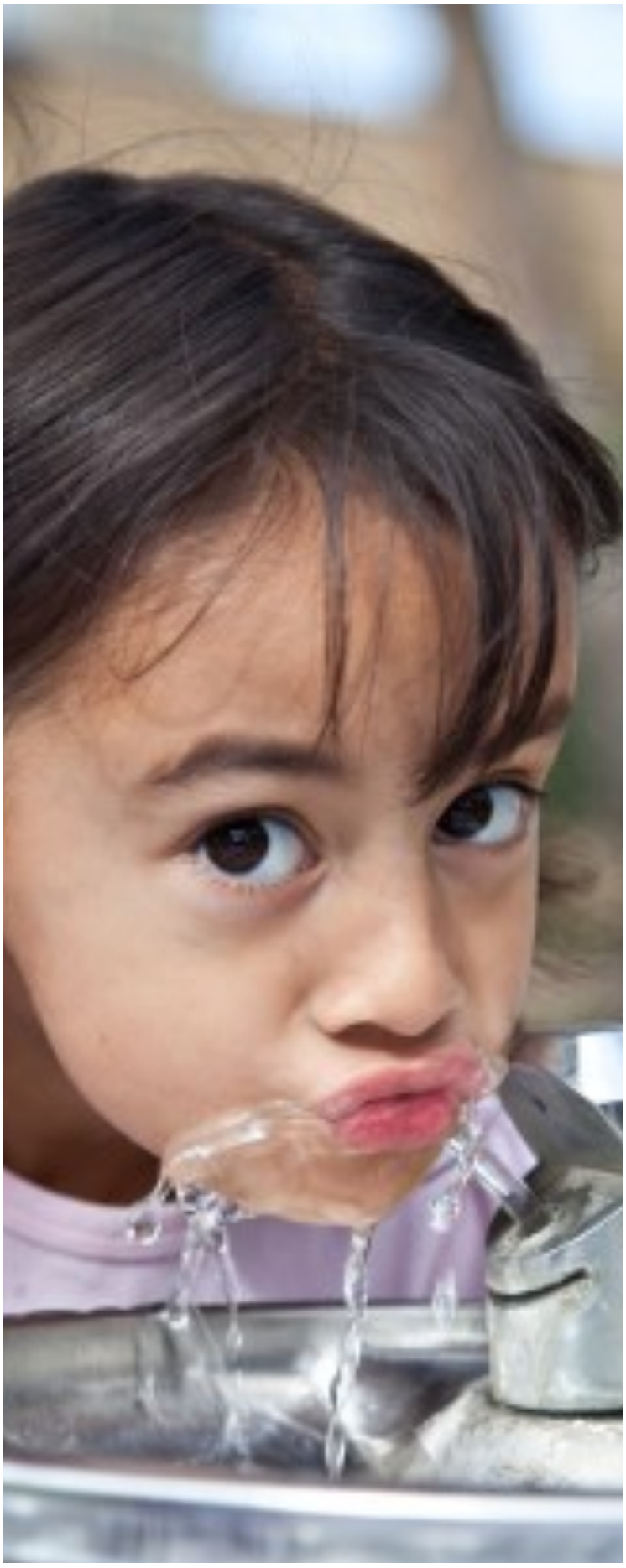

Table 2: **Number and Types of Organizations Represented in New York's Lead Testing in School Drinking Water Data** [1]

Type of Organization	Number	Category Definition
Schools Serving Grades PK-12	**4,317**	**Sum of all school types serving grades PK-12**
Public schools serving grades PK-12 (including public charter), with identifiable school characteristics	3,619	All public schools with grades PK-12, including public charter schools, with identifying information in the national census of public schools (National Center for Education Statistics (NCES) Common Core of Data, 2015-2016)
Other public schools serving grades PK-12, without identifiable school characteristics	698	All other public schools with grades PK-12, including public charter schools, without identifying information in the national census of public schools (NCES Common Core of Data, 2015-2016)
Schools Serving Other Grades/Age Groups	**9**	**Sum of All School Types Serving Other Grades or Age Groups**
Child care centers	3	Organizations or schools that primarily serve as a child care center (includes preschool)
School-based adult education programs	2	Schools providing adult education programs
Public schools with unknown grades	4	Public schools that have identifying information in the national census of public schools (NCES Common Core of Data 2015-2016) but do not serve the eligible grades
Other organization or facility types	**10**	**Other organization or facility types such as recreation centers, educational administration buildings, afterschool programs**
Total number of organizations where data were collected	**4,336**	**Total number of organizations where data were collected as of April 5, 2018**

1. New York schools with drinking water lead test results provided by the New York program were matched to the 2015-2016 NCES Common Core of Data database using school and district names and other information provided by New York's Lead Testing in School Drinking Water data or other public data sources (i.e., state school directory, school district websites).

Characteristics of Public Schools in New York Serving Grades PK-12

In New York,

- All public schools serving grades PK-12 were considered eligible to participate in the state's drinking water testing program for this study.
- There are 4,792 public schools serving grades PK-12, according to the National Center for Education Statistics Common Core of Data 2015-2016.
- Of these, 3,619 (76%) schools had lead testing findings that were collected via New York's Lead Testing in School Drinking Water as of April 5, 2018. These 3,619 schools serve 82% of New York's PK-12 students.

Table 3: **Number and Characteristics of New York Public Schools Serving Grades PK-12 (NCES Common Core of Data 2015-16)[1]**

	Schools Eligible to Participate in New York's Lead Testing in School Drinking Water[1]	Schools with Drinking Water Lead Test Results (September 2016 to April 2018)[2,3]
NUMBER OF SCHOOLS[2]	4,792	3,619 (76%)
School-Level[4]		
Primary	2,765 (58%)	2,325 (64%)
Middle	801 (17%)	590 (16%)
High	1,043 (22%)	624 (17%)
Middle/High	183 (4%)	80 (2%)
Metro Status/Locale[4]		
City	2,148 (45%)	1,135 (31%)
Suburban	1,530 (32%)	1,433 (40%)
Town	354 (7%)	344 (10%)
Rural	760 (16%)	707 (20%)
NUMBER OF STUDENTS IN GRADES PK-12	2,669,816	2,197,599 (82%)
Number (%) of students eligible for free or reduced price meals	1,316,983 (49%)	1,064,516 (48%)
Number (%) students by race and ethnicity[4]		
White	1,196,434 (45%)	1,119,054 (51%)
Black	467,506 (18%)	304,777 (14%)
Asian	244,047 (9%)	211,022 (10%)
Hispanic	691,008 (26%)	502,103 (23%)
Hawaii Native/Pacific Islander	Not reported	Not reported
American Indian/Alaska Native	17,191 (1%)	13,720 (1%)
Two or More Races	53,630 (2%)	46,923 (2%)

1. Public schools and their characteristics were identified using the National Center for Education Statistics Common Core of Data 2015-2016, Public Elementary/Secondary School Universe Survey Data, downloaded March 22, 2018 from https://nces.ed.gov/ccd/pubschuniv.asp.
2. Only schools identified in the 2015-2016 NCES Common Core of Data database are included here.
3. New York schools with drinking water lead test results provided by the New York program were matched to the 2015-2016 NCES Common Core of Data database using school and district names and other information provided by New York's Lead Testing in School Drinking Water data or other public data sources (i.e., state school directory, school district websites).
4. Percentages may not add up to exactly 100% due to rounding.

Citation:

Cradock AL, Poole MK, Vollmer LY, Barrett JL, Flax C, Hecht CA. State Approaches to Testing School Drinking Water for Lead in the United States [State Profile: New York]. Boston, MA: Harvard Prevention Research Center on Nutrition and Physical Activity at the Harvard T.H. Chan School of Public Health; 2019. Available at https://www.hsph.harvard.edu/prc/projects/school-research/early-adopters. Address correspondence to Angie Cradock, ScD, MPE at acradock@hsph.harvard.edu.

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