



## Report to the New York City Council on Progress in Preventing Childhood Lead Poisoning in New York City

Submitted by New York City Department of Health & Mental Hygiene  
September 30, 2017

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### About This Report

Local Law 1 of 2004 requires the New York City Department of Health & Mental Hygiene (DOHMH) to annually report to the New York City Council on the City's progress toward reducing childhood lead poisoning and increasing blood lead testing in New York City. This report is submitted in compliance with this requirement.

Data in the report are presented in three sections:

- *Section I* describes the number and severity of childhood lead poisonings. While DOHMH provides lead poisoning prevention services for all children under 18 years of age, this section focuses on children under 6 years of age<sup>1</sup> since they are at greatest risk for lead poisoning.
- *Section II* presents data on blood lead testing for children turning 3 years of age in 2016. New York State law requires healthcare providers to test all children at or around age 1 and age 2. Consequently, before turning 3 years of age, children living in New York City should be tested twice.
- *Section III* outlines strategies for continued progress in the prevention of childhood lead poisoning.

### Important Definitions in This Report

**Blood lead level (BLL)** is the concentration of lead, measured in micrograms in a deciliter of blood (mcg/dL).

**Lead poisoning** is defined by the New York City Health Code as a blood lead level of 10 mcg/dL or greater.

**Environmental intervention blood lead level (EIBLL)** is the term used by the New York City Department of Health and Mental Hygiene (DOHMH) to refer to the blood lead level at which environmental intervention and case coordination services for lead poisoning for children up to 18 years of age are initiated. The EIBLL is currently 15 mcg/dL.

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<sup>1</sup> In 2006, the New York City Board of Health lowered the applicable age of Local Law 1 of 2004 from under 7 years of age to under 6 years of age. Local Law 1 of 2004 authorized the Board of Health to make a determination whether or not to amend the applicable age.

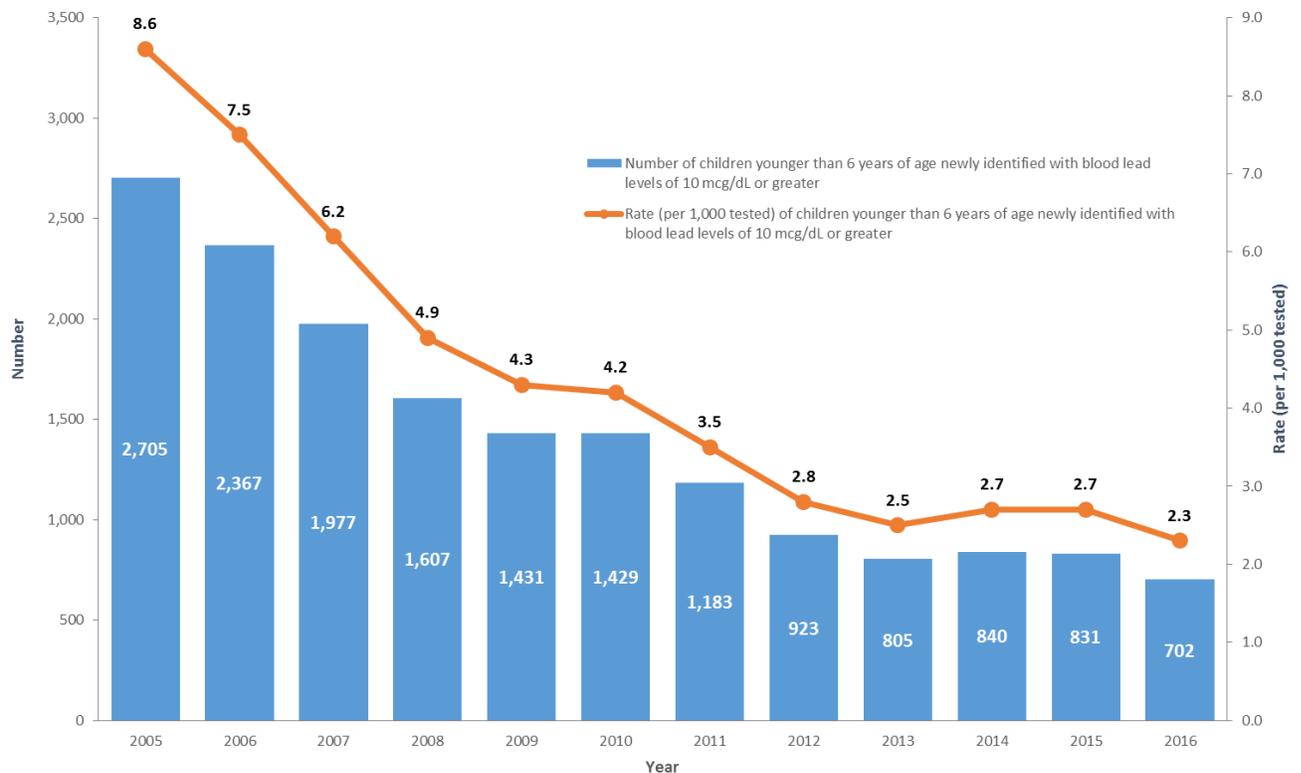
## Section I: Preventing Childhood Lead Poisoning in New York City

Childhood lead poisoning is a serious but preventable health problem, with lead paint hazards remaining the most common source of lead poisoning in New York City children. The number and rate of newly identified cases, as well as the associated blood lead levels, have greatly declined. Since 2005 there has been a greater than 70% decline in the number and rate of children with lead poisoning, and there are fewer children requiring environmental intervention for lead poisoning.

### Children with lead poisoning

- In 2016, 702 New York City children under 6 years of age were newly identified with blood lead levels of 10 mcg/dL or greater, a 16% decline compared to 2015, when the total was 831.
- The rate of the new cases of childhood lead poisoning declined 15% compared to 2015, from 2.7 cases per 1,000 children tested in 2015 to 2.3 cases per 1,000 children tested in 2016.

Figure 1. Children With Lead Poisoning



Source: New York City Department of Health and Mental Hygiene Childhood Blood Lead Registry, 2005-2016



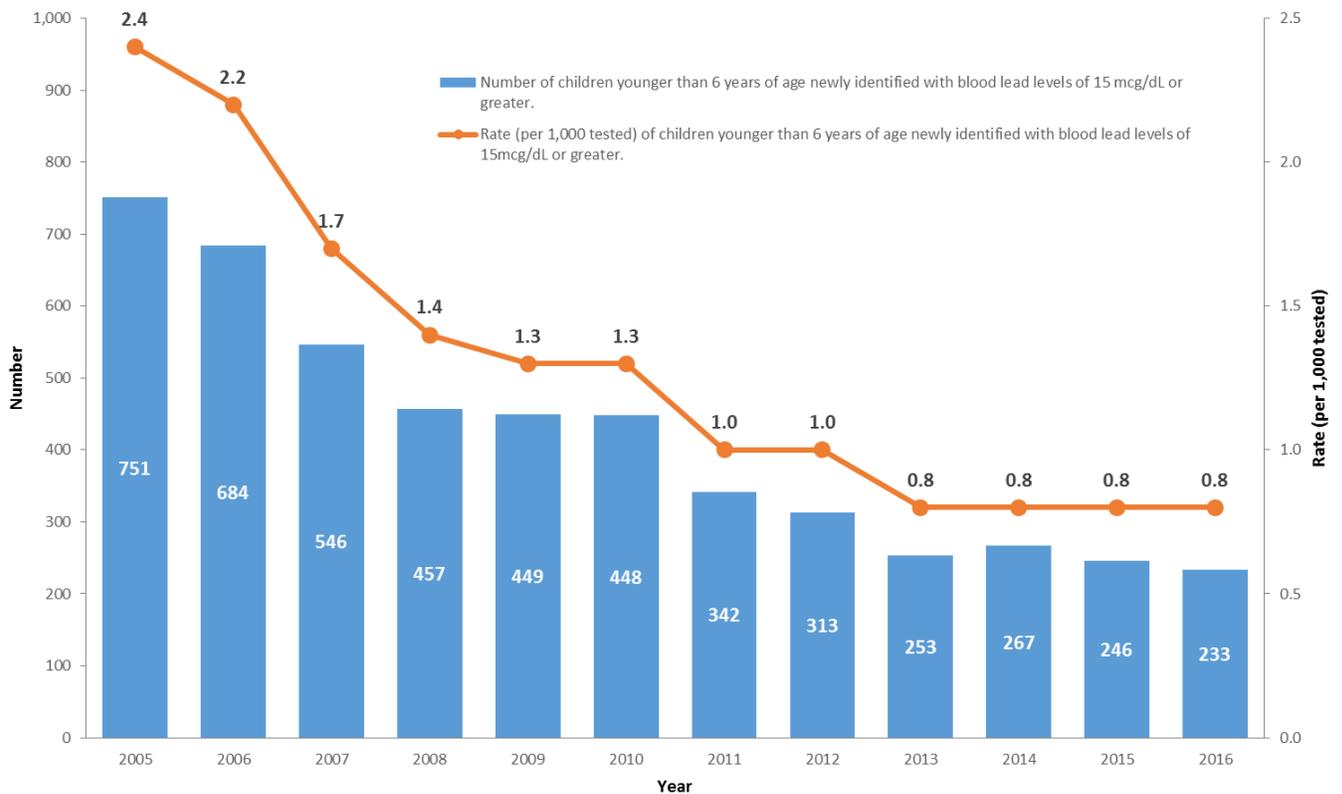
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## Number of Children Requiring Environmental Intervention

Under the authority of the New York City Health Code, the DOHMH provides environmental intervention and case coordination services for New York City children younger than 18 years of age with blood lead levels greater than or equal to 15 mcg/dL. At this blood lead level, DOHMH provides an environmental inspection in the child’s home, risk assessment to identify potential environmental sources of lead exposure, and care coordination with the child’s health care provider.

- In 2016, 275 children younger than 18 years of age were newly identified with blood lead levels of 15 mcg/dL or greater.
  - Of these children, 233 were younger than 6 years of age, the age group at highest risk. This represents a decrease of 5% compared to 2015 when there were 246 children younger than 6 years of age newly identified with blood lead levels of 15 mcg/dL or greater.
  - The rate of the new cases of children with blood lead levels of 15 mcg/dL stayed constant compared to 2015, with 0.8 cases per 1,000 children tested.

Figure 2. Children Requiring Environmental Interventions



Source: New York City Department of Health and Mental Hygiene Childhood Blood Lead Registry, 2005-2016

## **The burden of lead poisoning is highest among children of color and children living in high poverty neighborhoods**

While the number of children with blood lead levels of 15 mcg/dL or greater has decreased over time across racial and ethnic groups and neighborhoods, the burden of lead poisoning remains high for children of color and children living in high poverty neighborhoods.

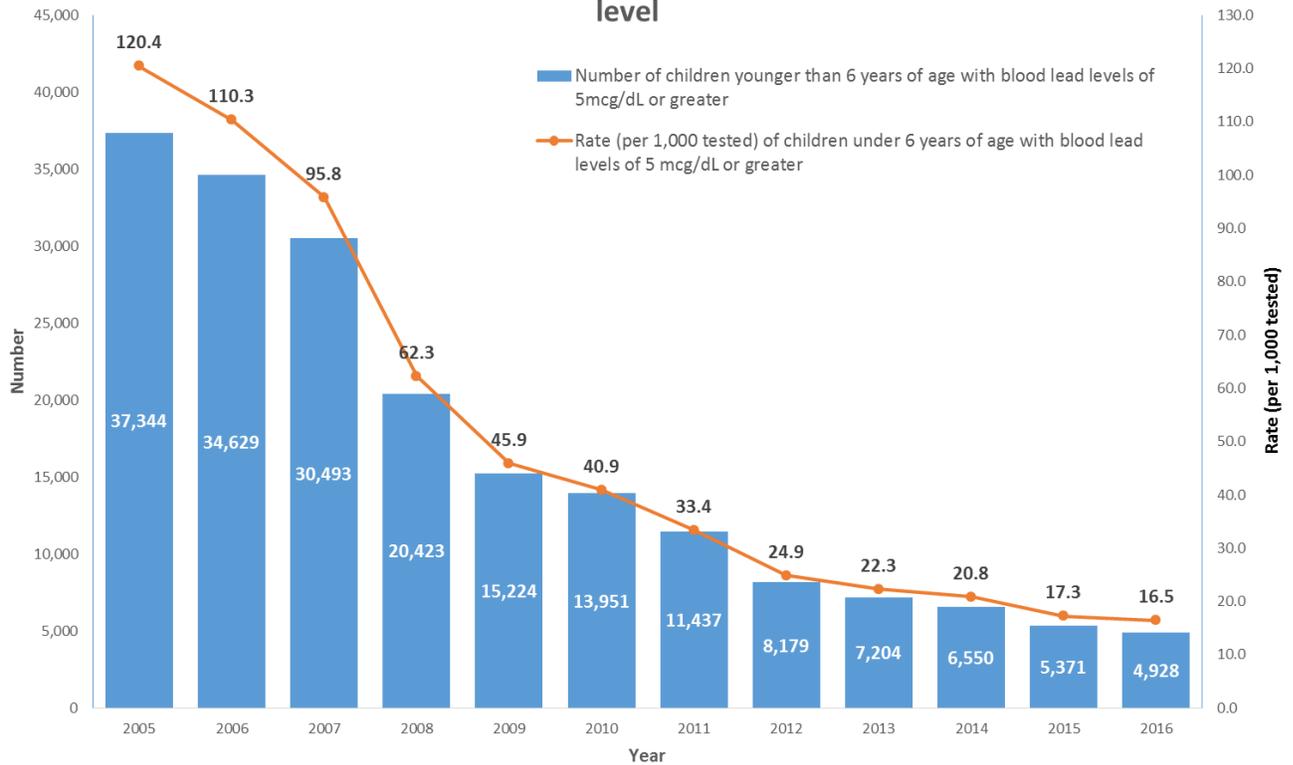
- In 2016, 62% of children younger than 6 years of age with blood lead levels of 15 mcg/dL or greater were from high poverty neighborhoods (defined as zip codes with 20% or more of the population living below poverty level), yet an estimated 50% of children citywide live in high poverty neighborhoods.
- In 2016, Latino, Black, and Asian children represented 82% of children younger than 6 years of age with blood lead levels of 15 mcg/dL or greater.
- In 2016, 29% of children under 6 years of age with blood lead levels 15 mcg/dL or greater were Asian, more than double the percentage of Asian children citywide (11%). Children of South Asian descent comprise the greatest percentage of Asian children with blood lead levels of 15 mcg/dL or greater (75%).

## **Fewer Children with Blood Lead Levels at or Above the National Reference Level**

In January 2012, the Centers for Disease Control and Prevention (CDC) adopted a reference level of 5 mcg/dL to identify the number of children that have blood lead levels higher than the vast majority of children.

- In 2016, 4,928 New York City children younger than 6 years of age were identified with blood lead levels of 5 mcg/dL or greater. This represents an 8% decline from 2015 when there were 5,371 children with blood lead levels of 5 mcg/dL or greater, and an 87% decline since 2005 when there were 37,344 children with blood lead levels of 5mcg/dL or greater.

**Figure 3. Children with blood lead levels at or above the national reference level**



Source: New York City Department of Health and Mental Hygiene Childhood Blood Lead Registry, 2005-2016

- A blood lead level of 5 mcg/dL or greater but below the threshold level for mandated inspections triggers intervention by DOHMH:
  - DOHMH sends letters to families and medical providers of children with blood lead levels of 5-14 mcg/dL. These letters emphasize the importance of timely follow-up testing and suggest actions that parents can take to protect their children from exposure to lead. Educational materials are provided, including a brochure on tenant rights under Local Law 1 of 2004.
  - DOHMH also provides non-mandated inspections for younger children with elevated blood lead levels that are below the mandated blood lead trigger for inspections as well as for newborns. These inspections are supported through a grant from the NYS Department of Health.

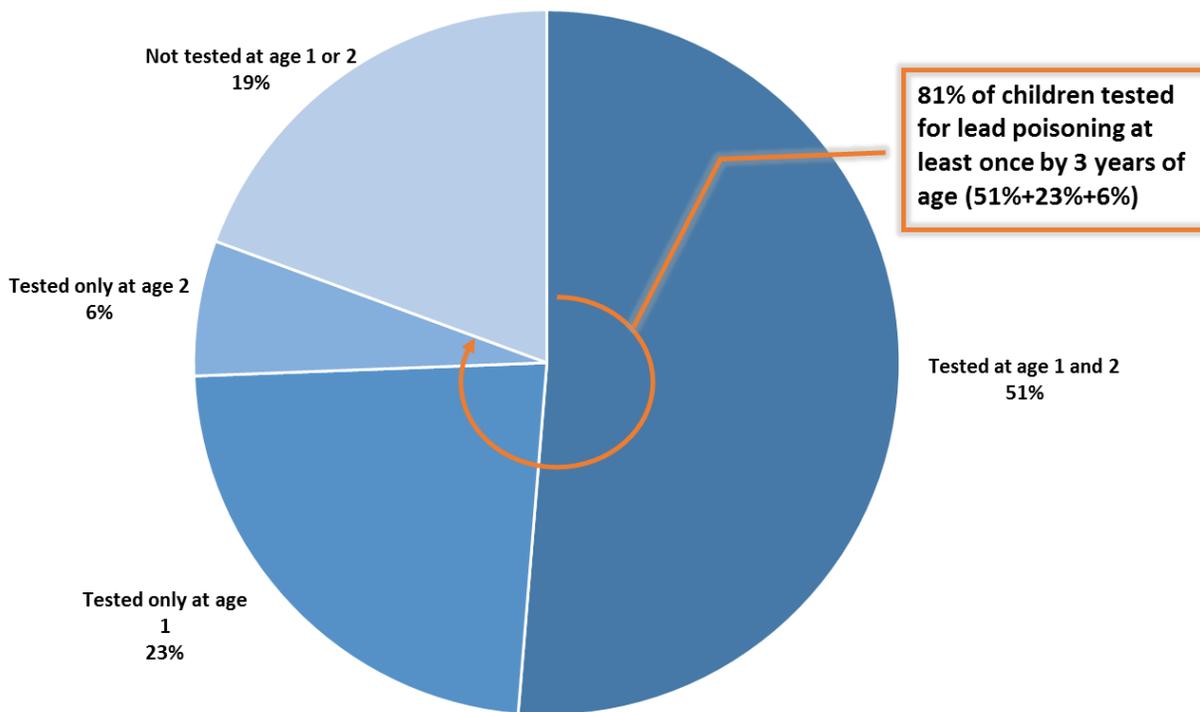
**Section II: Blood Lead Testing**

Early identification of lead-poisoned children is critical to identify and prevent further exposures as quickly as possible. Since most children with elevated blood lead levels have no symptoms, blood lead testing is the most efficient and effective way to identify these children. In New York State, health care providers are required by law to test all children at or around age 1 and age 2 years, and to annually assess children for risk and test those at risk of lead poisoning starting at age 6 months up to age 6 years.

**Most Children Were Tested for Lead Poisoning At Least Once Before Age Three Years**

- In 2016, an estimated 81% of New York City children turning 3 years of age were tested for lead poisoning at least once. Yet, only about half (51%) of them were tested at or around both age 1 year and age 2 years, as required by New York State law.

**Figure 4. Most (81%) New York City Children Were Tested for Lead Poisoning at Least Once Before Age Three**



Percentage of children turning 3 years of age in 2016 (Total=111,000; rounded to the nearest 1,000) tested for lead poisoning by age at test.  
 Source: New York City Department of Health and Mental Hygiene Childhood Blood Lead Registry and Office of Vital Statistics  
 Note: Data do not sum to the total of 100%, and the subtotal of 81% due to rounding.

### Section III: Strategies for Continued Progress

New York City has made great progress in reducing childhood lead poisoning. Between 2005 and 2016, the number of children younger than 6 years of age newly identified with blood lead levels of 10 mcg/dL or greater fell by more than 70%. This success is the result of strong policies and a proactive and comprehensive approach to lead poisoning prevention. Living in older, poorly maintained housing with lead-based paint continues to be the most common source of lead exposure among NYC children. As such, efforts are targeted to those communities most at risk. Prevention strategies include:

- Eliminating or reducing lead-based paint hazards and other sources of lead in homes and communities through investigation, enforcement, training, and technical assistance.
- Promoting early identification of lead poisoning through blood lead testing for children, pregnant women, and newborns by outreaching to families, healthcare providers, and Medicaid Managed Care organizations.
- Providing care coordination services to lead poisoned children as well as lead poisoned pregnant women and their newborns.
- Building partnerships with community, social service, and faith-based organizations, home visiting programs, weatherization groups, neighborhood housing groups, medical providers, and agencies concerned with child and environmental health.
- Addressing other healthy homes issues during lead poisoning prevention efforts, such as the reduction of home asthma triggers and safety hazards.

This report and more information about childhood lead poisoning are available through the NYC DOHMH website at: <http://www1.nyc.gov/site/doh/data/health-tools/childhood-lead-poisoning.page>

Additional data on childhood lead exposure are also available through the NYC DOHMH Environment and Health Data Portal at <http://www1.nyc.gov/site/doh/data/health-tools/environmental-public-health-tracking-program.page>