

**Report to the New York City Council on
Progress in Preventing Childhood Lead Poisoning
in New York City, 2008**

**Submitted by New York City Department of Health & Mental Hygiene
September 30, 2009**

About This Report

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

This report focuses on younger children since they are at greatest risk for lead poisoning. Data in the report are presented in two sections:

- Section I describes NYC's progress in reducing the number and severity of childhood lead poisoning cases. This section focuses on children ages 6 months to less than 6 years.¹
- Section II presents data on blood lead testing for NYC children, focusing on 1- and 2-year-old children. New York State (NYS) law requires testing of all children at these ages.

Important Definitions in This Report

Blood lead level (BLL) is the concentration of lead, measured in micrograms in a deciliter of blood ($\mu\text{g}/\text{dL}$).

Elevated blood lead level is the term used by the U.S. Centers for Disease Control and Prevention (CDC) to describe a BLL equal to or greater than (\geq) $10 \mu\text{g}/\text{dL}$. The NYC Health Code also defines lead poisoning as a BLL of $10 \mu\text{g}/\text{dL}$ or greater.

Environmental Intervention Blood Lead Level (EIBLL) is the term used by the NYC Department of Health and Mental Hygiene (DOHMH) to refer to the BLL at which environmental intervention and care coordination services for children with lead poisoning, up to 18 years of age, are initiated. In August 2004, the EIBLL was reduced to a BLL $\geq 15 \mu\text{g}/\text{dL}$. For this report, numbers are presented for younger children, ages 6 months to less than 6 years, who are at greatest risk for lead poisoning.

¹ On March 16, 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 from under seven years to under six years after one calendar year from the effective date of Local Law 1 of 2004.

Section I – Preventing Childhood Lead Poisoning in New York City

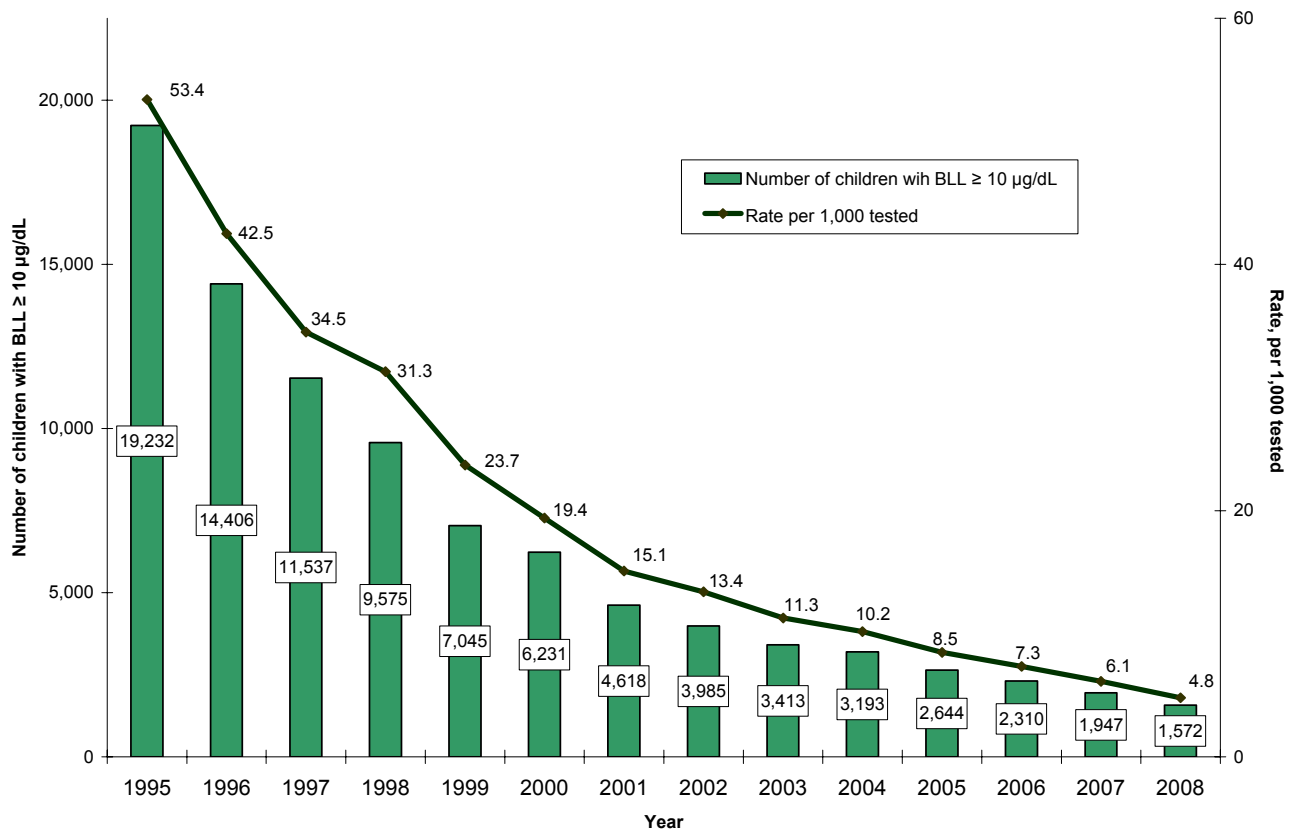
Childhood lead poisoning is a serious but preventable health problem. Over the last few decades, NYC has made significant progress in reducing childhood lead poisoning. Both the number of lead-poisoned children and the severity of lead poisoning (as measured by blood lead levels) have decreased dramatically.

Fewer Lead-Poisoned Children

In 2008,

- 1,572 NYC children, 6 months to less than 6 years, were newly identified with BLLs ≥ 10 $\mu\text{g}/\text{dL}$, a 19% decrease from 1,947 children in 2007 and a 92% decrease from 19,232 children in 1995 (Figure 1).

Figure 1 - Steady Decline in Number of Children with Lead Poisoning*



*Number and rate (per 1,000 tested) of children, ages 6 months to less than 6 years, newly identified with blood lead levels ≥ 10 $\mu\text{g}/\text{dL}$, by year: NYC, 1995 - 2008.

The DOHMH provides intervention services for lead-poisoned children. These interventions are guided by blood lead levels. The DOHMH sends letters to families and medical providers of children with blood lead levels of 10-14 $\mu\text{g}/\text{dL}$. 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, which requires building owners to inspect and safely repair lead-based paint hazards in pre-1960 multiple dwellings where a young child resides. If repairs are not made, tenants can call 311 for assistance from the Department of Housing Preservation and Development (HPD).

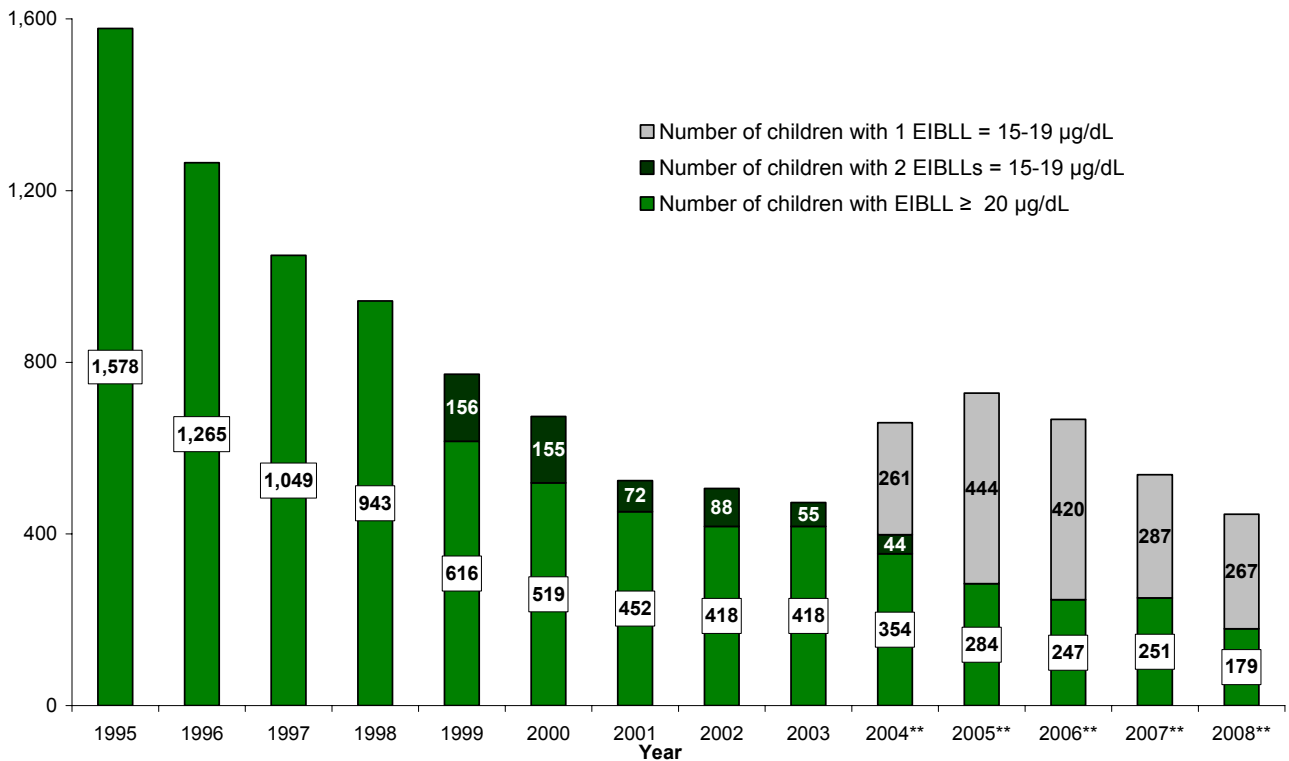
Environmental Intervention Blood Lead Level (EIBLL) Cases

The DOHMH provides environmental intervention and case coordination services for NYC children with blood lead levels greater than or equal to the Environmental Intervention Blood Lead Level (EIBLL), which is currently defined as a blood lead level $\geq 15 \mu\text{g/dL}$.

In 2008,

- 446 children, 6 months to less than 6 years, were newly identified with EIBLLs, a 17% decline from 538 children in 2006 and a 39% decline from 728 children in 2005 (Figure 2).

Figure 2 - Fewer Children Required Environmental Intervention in 2008*



*Number of children, ages 6 months to less than 6 years, newly identified with an Environmental Intervention Blood Lead Level (EIBLL), by year: NYC, 1995-2008. From July 1999 through July 2004, the Environmental Intervention Blood Lead Level was defined as either (a) one venous blood lead level $\geq 20 \mu\text{g/dL}$, or (b) two blood lead levels 15-19 $\mu\text{g/dL}$ that were drawn at least 3 months apart, where the second test was a venous test. As of August 2004, the EIBLL is defined as one venous blood lead level $\geq 15 \mu\text{g/dL}$.

**The increase in the number of children who received environmental intervention services in recent years reflects the lowered EIBLL, and not a rise in number of children with elevated blood lead levels.

Severe Cases

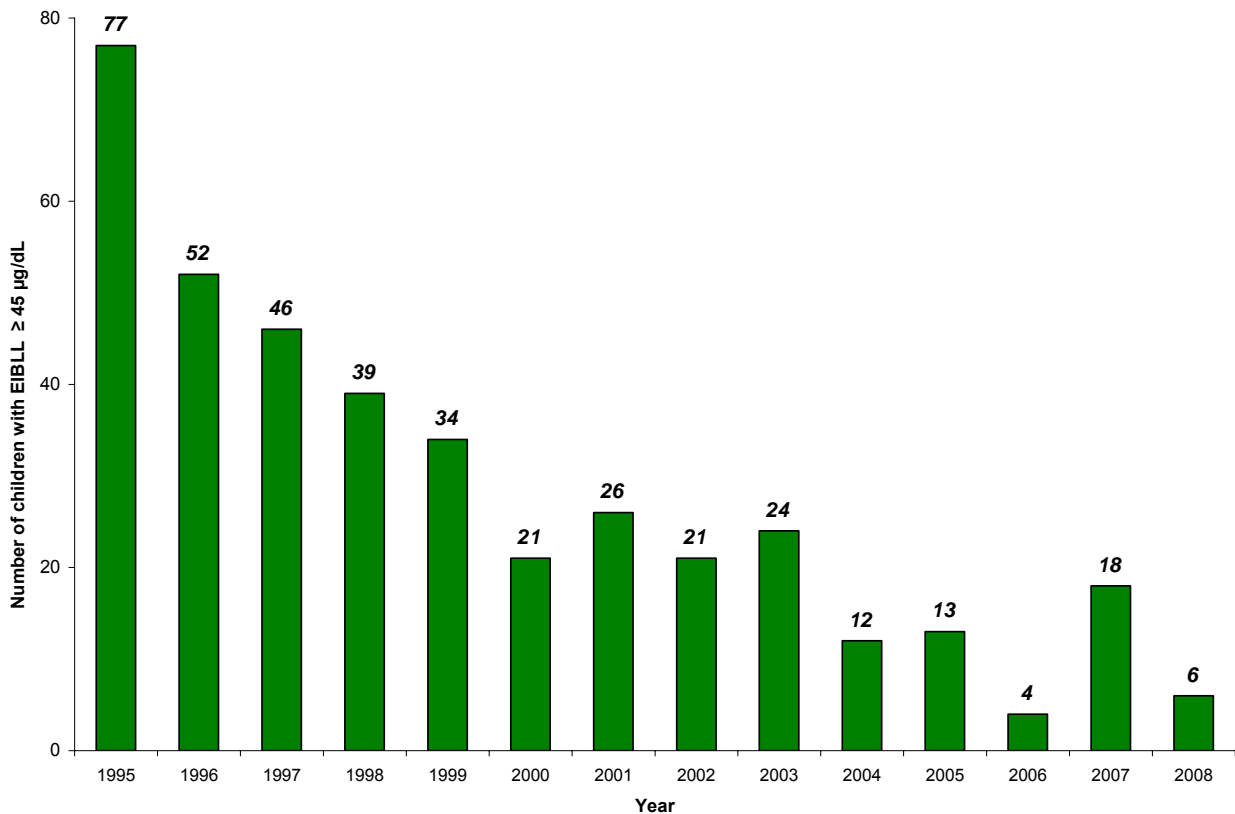
NYC's progress in reducing severe cases of lead poisoning also has been striking. In 2008,

- 6 children, 6 months to less than 6 years, were newly identified with EIBLLs ≥ 45 $\mu\text{g}/\text{dL}$ compared to 18 children in 2007 and 4 children in 2006. In 1995, there were 77 children with blood lead levels ≥ 45 $\mu\text{g}/\text{dL}$ (Figure 3).

At BLLS of ≥ 45 $\mu\text{g}/\text{dL}$, children require immediate medical intervention and may require hospitalization for chelation, a medical treatment that removes lead from the body.

The DOHMH continuously tracks and assesses new cases of severe lead poisoning, and will continue to vigilantly monitor this indicator.

Figure 3 - Number of Severe Cases of Childhood Lead Poisoning*



*Number of children, ages 6 months to less than 6 years, newly identified with Environmental Intervention Blood Lead Levels ≥ 45 $\mu\text{g}/\text{dL}$, by year: NYC, 1995-2008.

Section II - Blood Lead Testing

Early identification of lead-poisoned children is important in order 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 only practical way to identify these children.

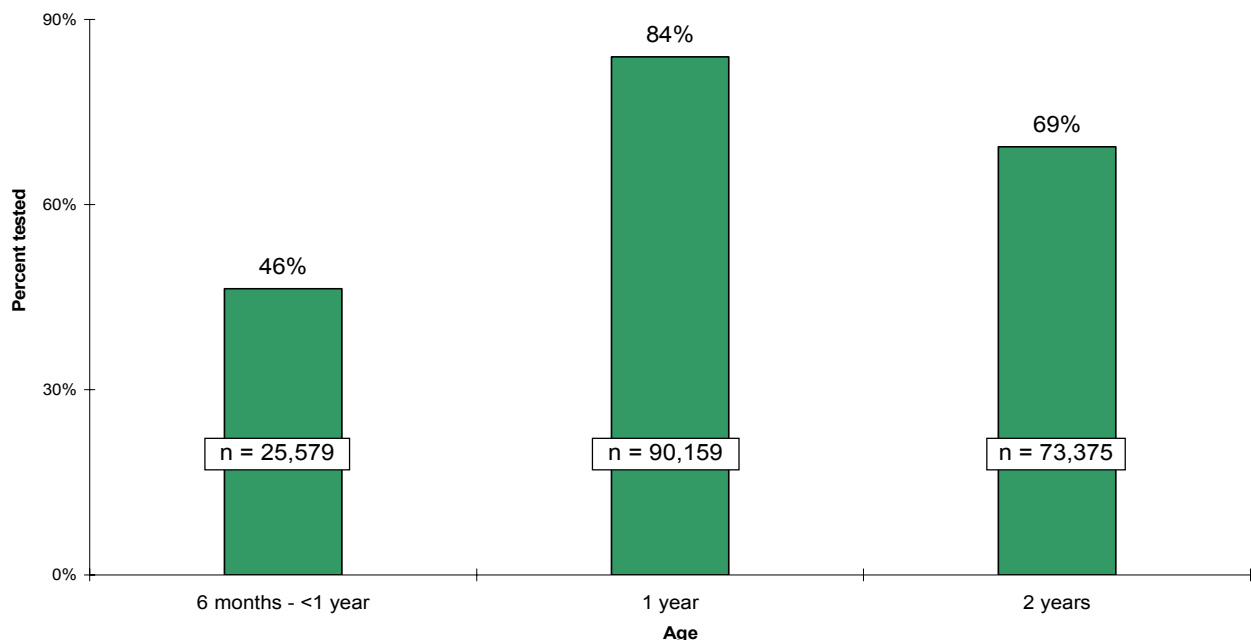
In NYS, blood lead testing is required for all children at 1 year and at 2 years of age, and for high-risk children between the ages of 6 months and less than 6 years. The DOHMH uses two different measures to monitor progress in blood lead testing among NYC children. First, blood lead tests for children born in a certain year are examined.

- Among children turning 3 years of age in 2008 (born in 2005), about 92% were tested for lead poisoning at least once before their third birthday. Yet, only 47% had been tested at both ages 1 and 2. By comparison, in 2007, among children born in 2004, 90% were tested at least once before their third birthday, and only 44% were tested at both ages 1 and 2.

The second measure for monitoring progress in blood lead testing examines tests performed in a single year and does not consider testing over time. The earliest test for a child in a single year is used to represent the age at testing for that child.

- In 2008, 84% of 1-year-olds and 69% of 2-year-olds were tested, compared to 79% of 1-year-olds and 66% of 2-year-olds tested in 2007. (Figure 4).

Figure 4 - More Than Half of 1-Year-Old and 2-Year-Old Children in NYC Were Tested for Lead Poisoning*



*Number and percent of children, ages 6 months to less than 3 years, tested for lead poisoning, by age: NYC, 2008. Sources: NYC DOHMH LPPP and US Census 2000 (Summary File 1).

As shown by both measures of progress in blood lead testing, the percent of 1- and 2-year old children tested has increased between 2007 and 2008.

Strategies for Continued Progress

NYC has made great progress in reducing childhood lead poisoning. Continued success will require creative strategies and new partnerships which:

- Utilize surveillance data to identify high risk populations and target prevention efforts to those groups.
- Expand efforts to prevent childhood lead poisoning before it occurs.
- Eliminate or reduce lead-based paint hazards and other sources of lead in homes and communities.
- Promote blood lead testing for children, pregnant women and newborns through outreach to families, healthcare providers and Medicaid managed care organizations.
- Educate health care providers, families, and community organizations about preventing lead poisoning.
- Increase culturally and linguistically appropriate outreach to immigrant populations.
- Build partnerships with community-based organizations, housing groups, medical providers, and agencies concerned with child and environmental health.
- Promote other healthy homes issues including safe pest control, moisture and mold elimination, smoke and carbon monoxide alarms, and window guards.