

**Report to the New York City Council on
Progress in Preventing Childhood Lead Poisoning
in New York City, 2007**

**Submitted by New York City Department of Health & Mental Hygiene
September 30, 2008**

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) $10 \mu\text{g}/\text{dL}$.

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 care coordination and environmental intervention services for children with lead poisoning, up to 18 years of age, are initiated. In August 2004, the EIBLL was reduced to a $\text{BLL} \geq 15 \mu\text{g}/\text{dL}$. 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 – Reducing Childhood Lead Poisoning in New York City

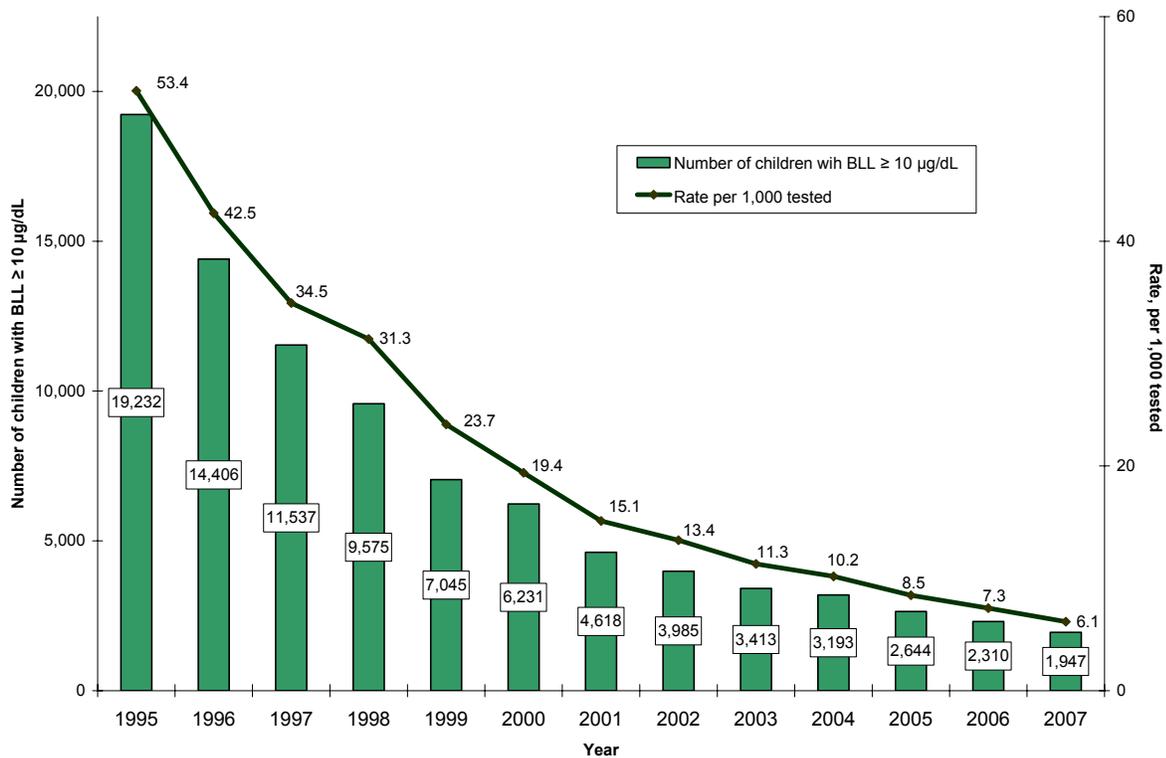
Childhood lead poisoning is a serious but preventable health problem. Over the last 35 years, NYC has made significant progress in preventing childhood lead poisoning. Both the number of lead-poisoned children and the severity of lead poisoning (as measured by blood lead levels) have decreased dramatically.

Fewer Lead-Poisoned Children

In 2007,

- 1,947 NYC children, 6 months to less than 6 years, were newly identified with BLLs \geq 10 $\mu\text{g}/\text{dL}$, a 16% decrease from 2,310 children in 2006 and a 90% 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 \geq 10 $\mu\text{g}/\text{dL}$, by year: NYC, 1995 - 2007.

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).

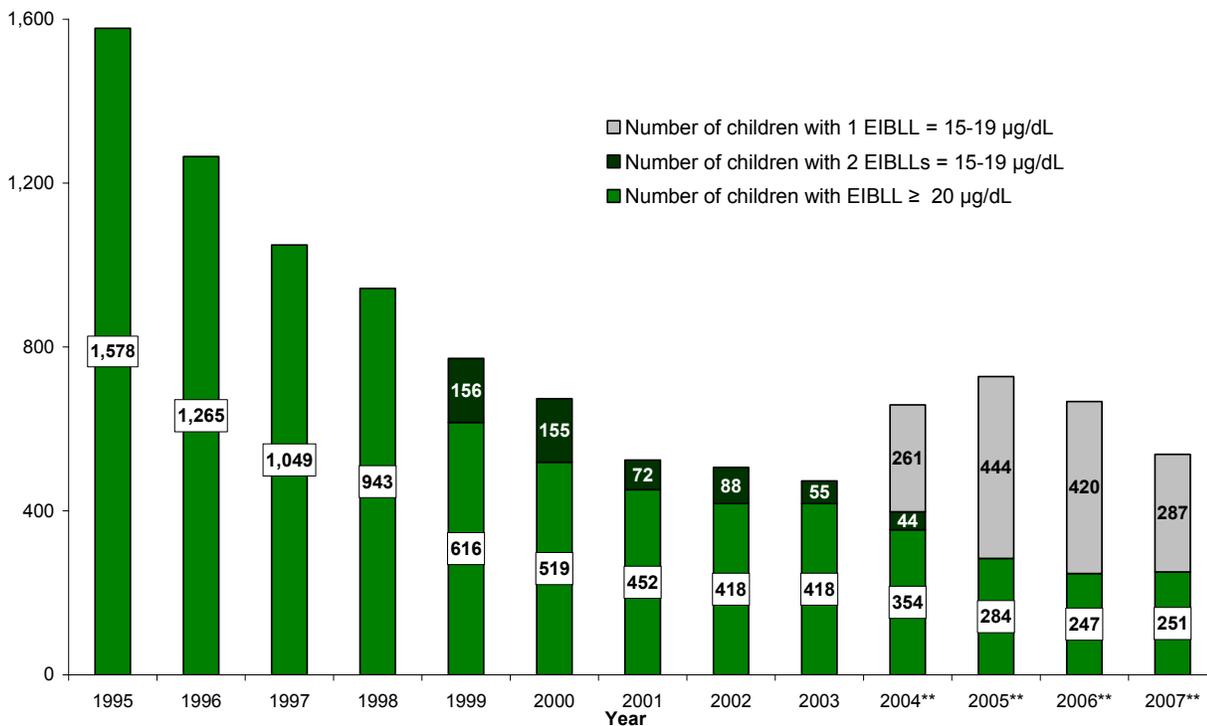
Environmental Intervention Blood Lead Level (EIBLL) Cases

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 2007,

- o 538 children, 6 months to less than 6 years, were newly identified with EIBLLs, a 19% decline from 667 children in 2006 and a 26% decline from 728 children in 2005 (Figure 2).

Figure 2 - Fewer Children Required Environmental Intervention in 2007*



*Number of children, ages 6 months to less than 6 years, newly identified with an Environmental Intervention Blood Lead Level (EIBLL), by year: NYC, 1995-2007. 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.

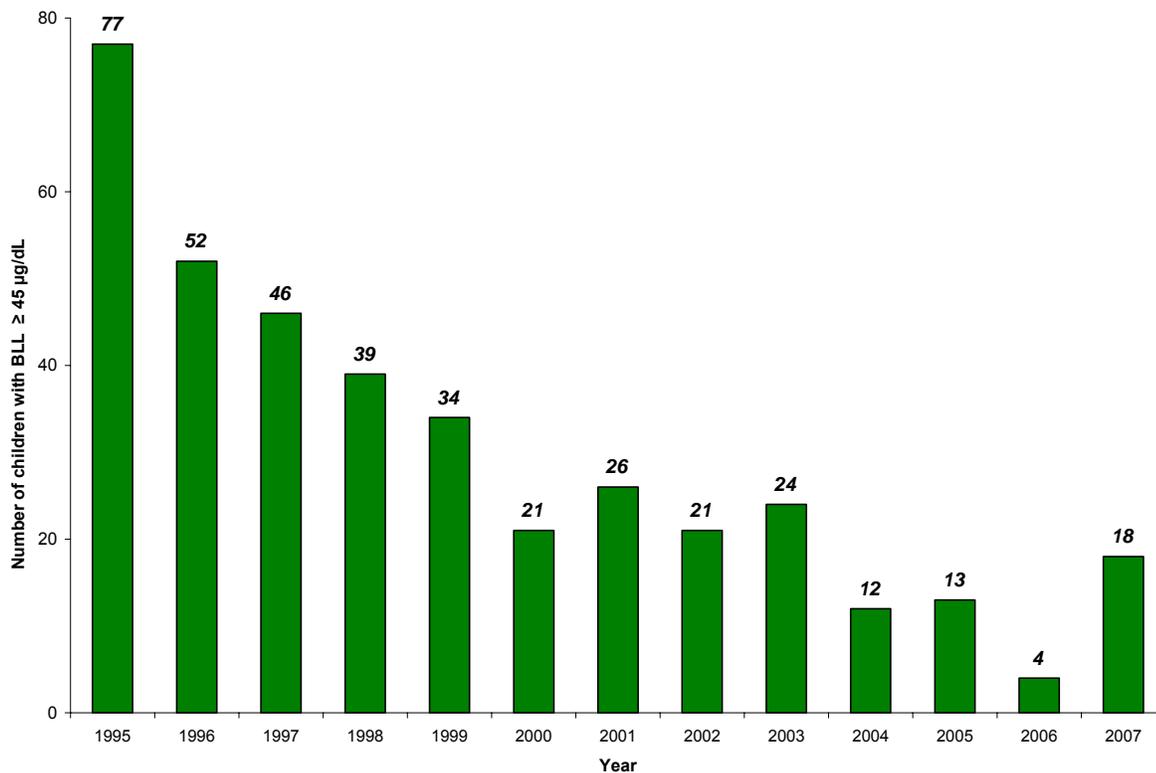
Severe Cases

NYC's progress in reducing severe cases of lead poisoning has been striking. Today, the vast majority of children with elevated blood lead levels have no clinical symptoms of lead poisoning and few require medical treatment. Chelation, a medical treatment for removing lead from the blood is recommended by the U.S. Centers for Disease Control and Prevention (CDC) at blood lead levels $\geq 45 \mu\text{g/dL}$.

In 2007,

- 18 children, 6 months to less than 6 years, were newly identified with BLLs $\geq 45 \mu\text{g/dL}$ compared to 4 children in 2006 and 13 children in 2005. In 1995, there were 77 children with blood lead levels $\geq 45 \mu\text{g/dL}$ (Figure 3).

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



*Number of children, ages 6 months to less than 6 years, newly identified with blood lead levels $\geq 45 \mu\text{g/dL}$, by year: NYC, 1995-2007.

Although the number of children newly identified with severe lead poisoning in 2007 is higher than in past years, especially compared to 2006 when there had been a significant decrease, the number is still relatively low. The DOHMH continuously tracks and assesses new cases of severe lead poisoning, and will continue to vigilantly monitor this indicator.

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.

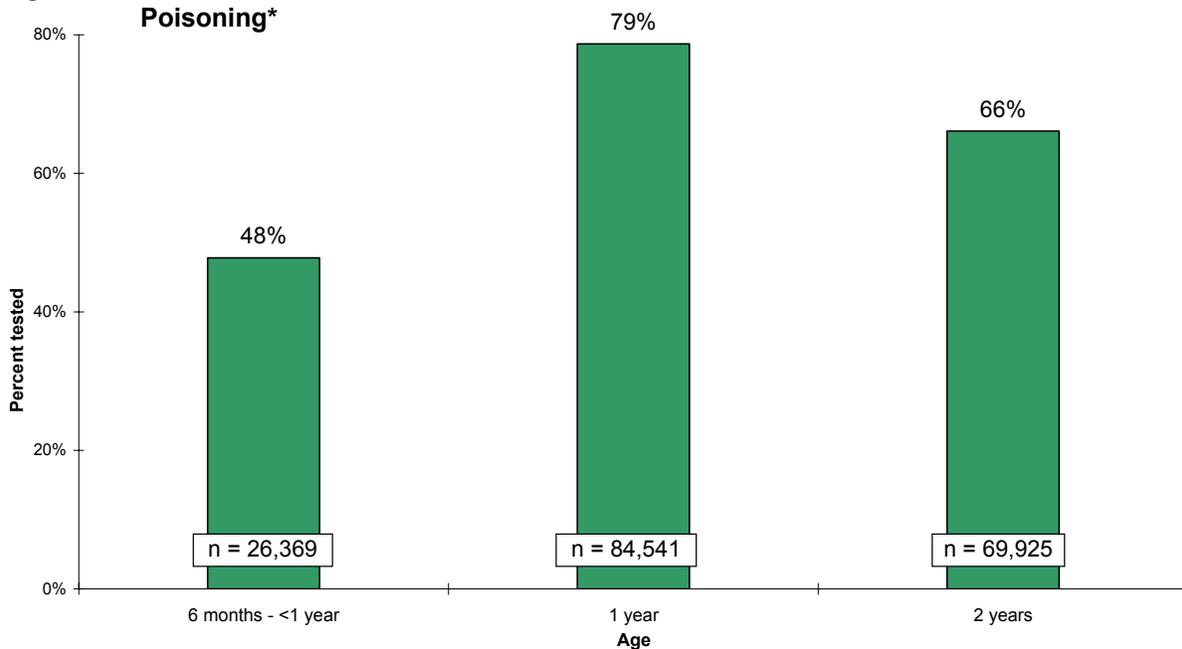
In NYS, blood lead testing is required for all children at 1 year and at 2 years of age, and for high-risk children between the ages of 6 months and less than 6 years. The DOHMH uses two different measures to monitor progress in blood lead testing among NYC children. First, blood lead tests for children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

- Among children turning 3 years of age in 2007 (born in 2004), about 90% were tested for lead poisoning at least once before their third birthday. Yet, only 44% had been tested at both ages 1 and 2. By comparison, in 2006, among children born in 2003, 89% were tested at least once before their third birthday, and only 41% 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 2007, 79% of 1-year-olds and 66% of 2-year-olds were tested, compared to 76% of 1-year-olds and 65% of 2-year-olds tested in 2006. (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, 2007. 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 2006 and 2007.

Strategies for Continued Progress

Continuing NYC's great progress towards eliminating childhood lead poisoning requires comprehensive strategies aimed at reducing environmental sources of lead, early identification of lead poisoning through blood lead testing, and increasing community awareness about effective prevention strategies. In 2007, DOHMH focused its activities in the following areas of prevention:

- Protecting children from exposure to lead:
 - Provided environmental intervention services to 620 children up to 18 years of age, including 538 children aged 6 months to less than 6 years, and to 77 pregnant women.
 - Continued a successful initiative in Brooklyn's high-risk neighborhoods to identify and repair lead paint hazards in homes of newborns before lead poisoning occurs. DOHMH ordered remediation in 139 homes of newborns.
- Providing financial support to reduce lead paint hazards in New York City:
 - Continued to implement lead hazard reduction activities in high-risk areas in partnership with the HPD through federal grant funding.
 - Increased financial support for permanent removal of lead-based paint hazards in 1- and 2-family homes in high-risk neighborhoods.
- Promoting blood lead testing:
 - Collaborated with DOHMH Health Care Access and Improvement (HCAI) to include biannual data exchanges in the agency's contract with Medicaid managed care organizations (MMCO), which allow for identification and follow-up of children lacking appropriate blood lead tests. Among 1- and 2-year-old children enrolled in an MMCO plan as of March 2008, 79% had a blood lead test at least once in their lifetime.
 - Educated more than 20,000 healthcare providers about lead poisoning risks from toys, cosmetics, and other consumer products and the need for blood lead testing via the Health Alert Network.
 - Issued "Lead Poisoning: Prevention, Identification, And Management" *City Health Information* publication providing clinical guidance to health care providers on lead poisoning screening and prevention in children and pregnant women.
- Increasing awareness about lead poisoning prevention:
 - Educated hardware store owners, contractors, building owners and do-it-yourselfers about prevention of home health hazards such as lead, mold, pest and household chemicals.
 - Broadcasted a multilingual educational radio campaign on radio stations with large listening audiences from high-risk populations to build awareness about testing and lead poisoning prevention measures.
 - Organized a forum for acupuncturists, ayurvedic practitioners, and other healers on the lead hazards of herbal remedies.
 - Developed and distributed multilingual fact sheets intended for consumers and retail stores on lead hazards identified in imported consumer products.
 - Identified and responded to non-paint sources of lead poisoning by collaborating with federal and state government agencies, wholesalers and retailers, and community organizations to ban the sale of hazardous products and inform community members.