

DEPARTMENT OF HEALTH AND MENTAL HYGIENE
BOARD OF HEALTH

NOTICE OF ADOPTION OF AMENDMENTS TO SECTION 173.14 OF THE
NEW YORK CITY HEALTH CODE

In compliance with Section 1043(b) of the New York City Charter and pursuant to the authority granted to the Board of Health by Section 558 of said Charter, a Notice to Amend was published in the City Record on December 16, 2005. A public hearing was held on January 19, 2006 at which no one testified. Four written comments were received. Although no changes were made to the substance of the proposed amendment, the effective date of the amendment will be October 1, 2006, to enable preparation of brochures and notices incorporating its provisions. The Board of Health at its March 16, 2006 meeting adopted the following resolution.

STATUTORY AUTHORITY

This amendment to the New York City Health Code (“Health Code”) is promulgated pursuant to §27-5056.18 of the Administrative Code of the City of New York (“Administrative Code”), and §558(b) and (c) of the New York City Charter (“Charter”) which authorizes the Board of Health to amend the Health Code.

STATEMENT OF BASIS AND PURPOSE

Background/Overview

This amendment, as outlined below, is intended to increase the effectiveness of the New York City Childhood Lead Poisoning Prevention Act of 2003, Local Law 1 of 2004, in preventing childhood lead poisoning. In accordance with provisions of Local Law 1 of 2004, it lowers the age of a “child of applicable age” which triggers Local Law 1 of 2004 actions from “under seven years of age” to “under six years of age” in order to better prioritize the invested private and public moneys and resources for lead-based paint hazard reduction in housing. Protecting younger children who are at greatest risk for lead poisoning is the most effective and efficient way of preventing childhood lead poisoning in New York City.

In 1960, the Board of Health amended the Health Code to ban the use of lead-based paint on residential interior surfaces. In 1970, the Health Code was further amended to provide for an investigation by the Department of possible environmental lead hazards in the home of a child with a reported Environmental Intervention Blood Lead Level (“EIBLL”). Local Law 1 of 1982, the New York City’s first housing maintenance law aimed at the primary prevention of childhood lead poisoning, amended the Housing Maintenance Code (Title 27 of the Administrative Code of the City of New York) to require owners to correct lead-based paint hazards in dwelling units in multiple dwelling buildings where children under seven years of age resided. In 1999, the City Council enacted Local Law 38, repealing Local Law 1 of 1982, to create what it characterized as a more pragmatic and workable approach to housing maintenance than was possible under Local Law 1 of 1982. However, on July 1, 2003, New York’s highest court invalidated Local Law 38 on the grounds of inadequate review under the State and City

environmental quality laws. On February 5, 2004, the City Council voted to override the Mayor's veto and enacted Local Law 1 of 2004, repealing Local Law 1 of 1982 and Local Law 38 of 1999.

Local Law 1 of 2004 amended the Housing Maintenance Code and other provisions of the Administrative Code with respect to addressing lead hazards in units in multiple dwellings in which a child of "applicable age" resides. To maintain consistency with the Administrative Code, the Board of Health repealed and reenacted various Health Code provisions applicable to lead-based paint hazard control and remediation in the homes of children with EIBLL, as well as in day care facilities, kindergartens and residences of other children of applicable age. Effective August 2, 2004, Local Law 1 of 2004 included a provision defining a child of "applicable age" and also authorized the Board of Health to amend such definition, as follows:

§27-5056.18 Application of this article based on age of child. For the purposes of this article, the term "applicable age" shall mean "under seven years of age" for at least one calendar year from the effective date of this section. Upon the expiration of such one year period, in accordance with the procedures by which the health code is amended, the board of health may determine whether or not the provisions of this article should apply to children of age six, and based on this determination, may redefine "applicable age" for the purposes of some or all of the provisions of this article to mean "under six years of age," but no lower.

The Amendment

Over the past 35 years there has been a dramatic decline in childhood lead poisoning; however, childhood lead poisoning remains a significant public health concern. Elevated blood lead levels have been associated with reduced intelligence, reading and learning disabilities, reduced attention span, hyperactivity and behavior problems (Baghurst et al., 1992; Bellinger et al., 1994; Lanphear et al., 2000; Mendelsohn et al., 1998). Interior lead-based paint that is peeling, cracking or chipping and dust from peeling or damaged lead-based paint remain major sources of lead exposure for urban children including New York City (NYC) children (Bellinger et al., 1986; Clark et al., 1992; Lanphear et al., 1996; Lanphear and Roghmann, 1997; NYC Department of Health and Mental Hygiene, Childhood Lead Poisoning Prevention Program Annual Report, in press). The primary route of exposure to lead-based paint in children is ingestion of lead-contaminated household dust (CDC, 2002).

The Department believes that the reduction of lead-based paint hazards in housing is essential to prevent childhood lead poisoning. These efforts are most effective when targeted to the homes of young children who are at greatest risk for lead poisoning. In addressing lead-based paint hazards, as in so much of public health, prioritization is absolutely crucial. Reducing the applicable age from under seven years of age to under six years of age would increase the effectiveness of Local Law 1 of 2004 by focusing efforts and resources to children most in need of, and who will benefit most from, intervention and prevent more lead poisoning cases. Because the risk of lead poisoning for children under six years of age is almost twice the risk for six-year-old children, more childhood lead poisoning cases would be prevented if regulatory actions were

focused on children under six years instead of children under seven years (NYC DOHMH surveillance data).

The Department has analyzed and reviewed available data on blood lead levels for NYC children and lead-based paint hazards in housing, and concludes the following:

1. Children under three years of age are at greatest risk for lead poisoning, particularly from exposures to lead-based paint hazards.

- a. The rate of elevated blood lead levels (≥ 10 $\mu\text{g/dL}$) is highest for children under three years, both in NYC and nationwide (CDC, 1994; CDC, 1997; CDC, 2005; NYC Lead Poisoning Prevention Program Annual Report 2004, in press). The rate of NYC children newly identified with elevated blood lead levels in 2003 and 2004 was 1.4% for children under three tested for lead poisoning, as compared to 0.8% for children three to less than six and 0.6% for six-year-old children tested for lead poisoning.
- b. Children under three years are more likely to crawl on the floor and engage in normal object-to-mouth and hand-to-mouth activities (mouthing), behaviors that increase their risk of ingesting household lead-based paint and dust (Moya et al., 2004).
- c. Blood lead levels generally peak around two years of age and subsequently decrease as children grow older (Lanphear et al., 1996; Lanphear et al., 2002). This pattern in blood lead levels has been associated with changes in mobility and mouthing behavior, and consequent changes in exposure to lead-based paint and dust.
- d. In the presence of actual or presumed lead-based paint hazards identified by the Department of Housing Preservation and Development (HPD) during housing inspections, NYC children under three years have the highest rate of elevated blood lead levels, with 3.0% for children under three years, 1.8% for children three to less than six years and 0.9% for six-year-old children. This means that for every 100 children with actual or presumed lead-based paint hazards who are tested, two more children aged less than three and one more child aged three to less than six years are identified with elevated blood lead levels as compared to six-year-old children.
- e. The proportion of children with Environmental Intervention Blood Lead Levels (“EIBLL”) (currently defined as ≥ 15 $\mu\text{g/dL}$) for whom the Department identified lead-based paint hazards is highest among children under three years, with 75% of children less than three years having identified lead-based paint hazards, as compared to 66% of children three to less than six years, and 53% of six-year-old children.
- f. Remediation of lead-based paint hazards in housing is more effective in preventing and reducing elevated blood lead levels for infants and toddlers than for older children. Thus, children under three years benefit the most from housing-based environmental interventions (CDC, 2004; Leighton et al., 2003).

2. In addition to covering the highest risk group of children (under three years), Local Law 1 of 2004 provides a sufficient margin of safety for preventing exposure of

young children to lead-based paint hazards by applying to children aged three through five years.

- a. Behaviors such as crawling and mouthing decline with age and children spend less time close to or on the floor. As a result, children three years and older are at reduced risk for ingesting lead-based paint and dust *even when such hazards are present in their homes* (see paragraphs 1(b) through (d), above).
- b. Childhood lead poisoning may be increasingly associated with previous lead exposures experienced at younger ages and to sources other than current household lead-based paint hazards as children become older.
 - i. Elevated blood lead levels indicate both recent lead exposures as well as exposures in the past. When children are exposed to lead for a period of time, lead is stored in the bone and other tissues in the body. Blood lead levels can increase when the stored lead is remobilized from these storage sites in the body into the blood. Because the exchange between lead in the blood and other tissues can occur for some time, blood lead levels can remain elevated for an extended period of time even after sources of lead exposure have been removed (Auchincloss & Leighton, 2002; Roberts et al., 2001; Rust et al., 1999). Blood lead levels alone are therefore not an accurate means of determining the timing and total duration of lead exposure for children.
 - ii. Currently, many NYC children are not tested for lead poisoning at ages one and two, as required by New York State law. Only about 54% of children with elevated blood lead levels aged three to less than six, and 37% of six-year-old children had received a blood lead test before age three. Lead exposure in these children could have occurred earlier but was undetected due to lack of blood lead testing.
 - iii. As explained above in paragraphs 1 (d) and (e), older children with EIBLLs are less likely to have lead-based paint hazards identified at any of their addresses inspected by the Department. Similarly, in the presence of actual or presumed lead-based paint hazards identified by HPD during housing inspections, older children who are tested are less likely to have elevated blood lead levels.
 - iv. Older children with EIBLLs are also disproportionately foreign-born as compared to younger children with EIBLLs. Of children newly identified with EIBLLs in 2003 and 2004, 43% of six-year-old children are born in a foreign country, as compared to 13% of children aged three to less than six years and 9% of children aged less than three years. The most common foreign birth countries for children with EIBLLs are Mexico, Haiti, Pakistan, Bangladesh and the Dominican Republic. Lead poisoning among foreign-born children may be associated with exposures outside of the United States and/or to lead sources related to cultural practices of the child's birth country. These lead exposure sources include air pollution from leaded gasoline exhaust and industrial emissions, occupational exposures of children and their families, lead contaminated foods and food containers, lead containing pottery used for cooking and storing foods,

traditional herbal and mineral medicine products, and cosmetics (CEC, 2006; Fewtrell et al., 2003).

3. Reducing the applicable age from under seven to under six will not increase the rate of lead poisoning among six-year-old children as indicated by a review of housing and children's blood lead level data.

- a. Despite changes to the applicable age in NYC lead poisoning primary prevention laws in the past decade (the applicable age for Local Law 38, effective from November 1999 through June 2003, was under six years), the number of lead poisoning cases for six-year-old children have continued to decline as for children in other age groups. Between 1995 and 2003, the number of children newly identified with elevated blood lead levels declined by 79% in children under three years, 86% in children three to less than six years, and 81% in six-year-old children.

Changing the applicable age to children under six years will also harmonize the New York City law with national and state policies, guidelines and regulations aimed at reducing childhood lead poisoning. These include Centers for Disease Control and Prevention (CDC) guidelines, New York State law, and policy statements of the American Academy of Pediatrics (AAP) regarding childhood blood lead screening and risk assessment for lead exposure. These guidelines and regulations reflect the overall direction of primary prevention efforts at national, state and local levels, which are aimed at eliminating childhood lead poisoning by year 2010.

In addition to adding a definition of "child of applicable age" the Board has also amended the definition of "chewable surface" in Health Code §173.14 (b) to apply to children under six years of age residing in multiple dwelling units. Currently this definition is applicable to children under seven years of age residing in multiple dwelling units in New York City, and to children under six years of age who attend day care and kindergarten.

RESPONSES TO PUBLIC COMMENTS

Four written comments were received from: (1) the New York City Coalition to End Lead Poisoning ("NYCCELP"), ("NYCCELP"), (2) Theodore Lidsky, Ph.D., (3) John F. Rosen, M.D., (4) Shaun Donovan, Commissioner, Department of Housing Preservation and Development ("DHPD"). The New York City Coalition to End Lead Poisoning requested the Board of Health to delay adoption of the amendments until it had "adequate empirical, medical and scientific data" as well as data from the DHPD. Drs. Lidsky and Rosen, in two separate comments, wrote that in their opinions the risk of lead poisoning and its neurological effects are the same for six-year-old children as for younger children. In a fourth comment, DHPD's Commissioner writes that his agency will redirect resources of the Emergency Repair Program to a new targeted program for children under six years of age who reside in one and two family homes identified as at risk by the Department.

The Department has taken all available data into consideration, including medical and scientific literature, and has carefully reviewed its own data for interventions in the homes of children EIBLL as well as data from HPD and has found that all relevant data supports this action. The

most important consideration is that children under three years are at greatest risk for exposure to lead-based paint and its dust due to their increased risk for ingesting lead-contaminated dust through age-appropriate behaviors such as crawling and mouthing, at a time when the brain is rapidly developing. This evidence is summarized above and has been presented to the Board of Health, and in the Environmental Assessment Statement.

The Department has also examined and addressed additional issues raised by the public comments, as outlined in a document submitted to the Board of Health and summarized below:

- The relevant literature and NYC experience suggest that rather than extending the applicable age, which already provides a margin of safety by covering ages three through five, well past the critical infant and toddler years, resources should be directed to reach the highest risk children before poisoning occurs. Prioritization of resource allocation for lead poisoning prevention activities is also a national goal. In October 2004, the CDC Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP) issued a series of recommendations for accelerating progress toward achieving the Healthy People 2010 objective of eliminating childhood lead poisoning. The ACCLPP recommended that housing-based primary prevention interventions be targeted to at-risk populations, defined as children less than six years of age, especially infants and toddlers (CDC, 2004).
- By prioritizing resources to the youngest children at greatest risk for lead poisoning, more children can be protected from lead-based paint hazards when they are most at risk for this type of exposure. Children six years of age or older may move into a new dwelling unit or live in a unit with a new lead-based hazard; however, they are at reduced risk for exposure to lead-based paint hazards in their home through ingestion, simply because children's behaviors such as crawling and mouthing moderates with age. It is also important to note that Local Law 1 of 2004 as well as the NYC Health Code provide for a number of other measures for protecting NYC residents from exposure to lead-based paint hazards. These include regulations requiring landlords to, upon turnover of tenants, inspect and repair lead-based paint hazards in dwellings of all buildings constructed before 1960 (multiple dwellings as well as one- and two-family homes), using safe work practices; requirements for the Department to respond to complaints about unsafe work practices around residences of children up to age 18; citywide ban on dry-scraping and dry-sanding lead-based paint or paint of unknown lead content in any residential buildings, daycare centers and schools; regulations requiring hardware and paint stores to post signs stating that dry-scraping and dry-sanding lead-based paint or paint of unknown lead content in residential buildings, daycare centers and schools are prohibited by law.
- The Department agrees that NYC children who are six years of age or older can have elevated blood lead levels, but the risk for having elevated blood lead levels, particularly due to lead-based paint hazards in their current housing situations in NYC, lowers as behaviors such as crawling and mouthing decline with age and children spend less time close to or on the floor. As a result, children three years and older are at reduced risk for ingesting lead-based paint and dust *even when such hazards are present in their homes*. Furthermore, as explained above, elevated blood lead levels may be increasingly associated with previous lead exposures experienced at younger ages and to sources other than current household lead-based paint hazards as children become older.

- NYC blood lead surveillance data cannot be used to compare the risk of lead poisoning for children aged six years or older, who are not routinely tested, to that for younger children who are more routinely tested. Typically older NYC children who are tested for lead poisoning have a suspected source of lead exposure, and therefore, represent a high-risk rather than a representative sample of children in these age groups. Thus, rates of children with elevated blood lead levels would be lower - not higher - if more children were tested beyond age two. Furthermore, in 2004, the rate of children with elevated blood lead levels was lower among for children three years and older than for one- and two-year-old children.
- The Department does not suggest that the brain development of six-year-old children is negligible, and does not state that six-year-old children cannot be developmentally harmed by lead in their bodies. However, younger children whose behaviors places them at greater risk for exposure to lead-based paint hazards are more vulnerable because this increased exposure is occurring at a time in their lives when both lead absorption in the body and central nervous system development occur rapidly.

Accordingly, there has been no substantive change in the text of the resolution. However, in order to enable the Department and HPD to effectively phase in the new “applicable age” the amendment would not become effective until October 1, 2006.

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STATEMENT PURSUANT TO SECTION 1042- REGULATORY AGENDA

Through an oversight, this proposal was not included in the Regulatory Agenda.

The proposal is as follows:

Note- matter in brackets [] to be deleted
matter underlined is new

RESOLVED, that subdivision (b) of Section 173.14 of the New York City Health Code as repealed and re-enacted by resolution adopted on the twenty-second day of July, two thousand four, be and the same hereby is amended, to be printed together with explanatory notes, to read as follows:

§173.14 **Safety standards for lead-based paint abatement and remediation, and work that disturbs lead-based paint.**

* * *

(b) *Definitions.* When used in this Article, or in §§45.12 or 47.44 of this Code, the following terms shall have the following meanings:

* * *

Chewable surface. “Chewable surface” shall mean a protruding interior window sill (i) in a dwelling unit in a multiple dwelling where a child under [seven] six years of age resides, which is readily accessible to such child, or (ii) such surface in a day care service or kindergarten

in an elementary school, that is readily accessible to a child under six years of age. “Chewable surface” shall also mean any other type of interior edge or protrusion in a dwelling unit in a multiple dwelling, day care service or kindergarten, such as a rail or stair, (i) where there is evidence that such other edge or protrusion has been chewed and where an occupant of the dwelling unit has notified the owner that a child under [seven] six years of age resides in that multiple dwelling, or (ii) where the operator of a day care service or kindergarten has observed that a child under six years of age has mouthed or chewed such edge or protrusion.

Child of applicable age. When used in Article 13 of Subchapter 2 of Chapter 2 of Title 27 of the Administrative Code, the term “child of applicable age” shall mean a child who is less than six years of age.

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Notes: Subdivision (b) of §173.14 was amended by resolution adopted on March 16, 2006 to define the term “child of applicable age,” in accordance with §27-5056.18 of the Administrative Code, and the definition of “chewable surface” was amended accordingly. The Board of Health made these amendments effective October 1, 2006, to enable the Department and the Department of Housing Preservation and Development time to phase in the new definition.