

# I INTRODUCTION & PROBLEM STATEMENT

## A. INTRODUCTION

According to the U.S. Centers for Disease Control and Prevention, lead poisoning is one of the top environmental threats to children's health. The Illinois Department of Public Health reports that in 2005 approximately 8,100 Illinois children were identified as lead-poisoned, with almost 4,200 of these children living in Chicago.<sup>1</sup> Since most children are not tested—even when required under state law<sup>2</sup>—it is likely that the actual number of Illinois children poisoned by lead is much higher. In addition, research suggests that children are being harmed by lead paint and showing adverse health effects at lower lead levels than earlier thought. These children are not yet counted in the reported numbers. The Illinois Department of Public Health estimates that over 81,000 children in Illinois are being harmed by lead paint.<sup>3</sup>

The purpose of this *Benchbook on Lead Paint Poisoning* is to provide judges at all experience levels with a comprehensive and easily accessible reference guide as they conduct hearings and enter orders in Housing Court proceedings concerning lead hazards. The Benchbook addresses both procedural and substantive issues. It is not intended to function as a legal treatise. Instead, it educates judges and administrative hearing officers on the dangers of lead poisoning and on the relevant laws, rules, and regulations to assure lead-safe housing for children and their families.

Part I of the Benchbook offers an overview of the problem of lead paint poisoning. The City and State laws and regulations, as they pertain to lead poisoning, are provided under Parts II and III. A summary of the law and accompanying rules and regulations precedes each part. The City of Chicago Law Department prosecutes lead-based paint violations under Title 7 of the Municipal Code. In addition, the Cook County State's Attorney's Office and the Illinois Attorney General's office may prosecute under the Illinois Lead Poisoning Prevention Act.

Appendices are included in Part IV of the Benchbook. The appendices include a description of the process by which a housing unit may be identified as having lead paint, sample forms used by the Chicago Department of Public Health, and sample complaints and order forms.

Appendix H provides the Department of Housing and Urban Development (HUD) guidelines for paint inspection and the Residential Lead-Based Paint Hazard Reduction Act of 1992. These regulations apply to HUD programs, including those that provide assistance for rehabilitation and tenant-based rental assistance.

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<sup>1</sup> ILLINOIS DEPARTMENT OF PUBLIC HEALTH, CHILDHOOD LEAD POISONING SURVEILLANCE REPORT, (2005) at <http://www.idph.state.il.us>. *Hereafter*, LEAD POISONING SURVEILLANCE REPORT.

<sup>2</sup> Illinois law requires that children who live in high risk zip codes have their blood tested for lead. In all other communities, children are to be assessed for exposure to risks and tested when a risk is present. 410 ILCS 45/6.2(a); 77 Ill. Adm. Code 845.15.

<sup>3</sup> ILLINOIS DEPARTMENT OF PUBLIC HEALTH, GET THE LEAD OUT-ILLINOIS CHILDHOOD LEAD POISONING SURVEILLANCE REPORT 2001. *Hereafter*, GET THE LEAD OUT.

Appendix I provides the U.S. Environmental Protection Agency 2008 Lead Renovation, Repair and Painting Rule. This rule establishes lead safe work practices for renovators. It also sets forth requirements for training, certifying, and accrediting renovators, workers, and lead dust technicians, and for recordkeeping.

## B. PROBLEM STATEMENT

Lead poisoning is a potentially devastating, but entirely preventable, disease caused by exposure to dust from deteriorated paint on old housing.<sup>4</sup> More than 310,000 children nationwide are lead poisoned.<sup>5</sup> Lead poisoning crosses all barriers of race, income, and geography.

Lead has no positive value to the human body and has not been shown to be safe at any level.<sup>6</sup> Lead poisoning causes permanent brain damage in children. At high levels, lead poisoning causes damage to the child's central nervous system, kidneys, and reproductive system.<sup>7</sup> At low and moderate levels, lead poisoning causes subtle brain damage resulting in reduced intelligence, learning disabilities, speech disorders, hyperactivity, shortened attention span and behavioral disorders.<sup>8</sup> Research also links low levels of lead exposure to lower IQ scores and to juvenile delinquency.<sup>9</sup> Studies are also beginning to show that early lead exposure is a risk factor for criminal behavior, including violent crime, in adulthood.<sup>10</sup>

The number of lead poisoned children in Illinois is among the highest in the nation. More than 8,000 Illinois children were identified as lead poisoned in 2005.<sup>11</sup> It is likely that the actual number of Illinois children harmed by lead is much higher since not all children are tested. Even in areas where testing is required for all children, fewer than 40 percent of the children are being tested. Children in Chicago account for 51% of the Illinois children identified as lead poisoned.<sup>12</sup> One out of every 22 children, ages six and younger, tested for

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<sup>4</sup> CENTERS FOR DISEASE CONTROL AND PREVENTION, LEAD POISONING PREVENTION PROGRAM, (2004) at <http://www.cdc.gov/nceh/lead/factsheets/leadfacts.htm>. Hereafter, LEAD POISONING PREVENTION PROGRAM.

<sup>5</sup> CENTERS FOR DISEASE CONTROL AND PREVENTION, *Surveillance for Elevated Blood Lead Levels Among Children – United States 1997-2001*, MORBIDITY AND MORTALITY WEEKLY REPORT, Sept. 12, 2003 at 4.

<sup>6</sup> RICHARD M. STAPLETON, LEAD IS A SILENT HAZARD, 2 (1994).

<sup>7</sup> LEAD POISONING PREVENTION PROGRAM, *supra* note 4.

<sup>8</sup> Joel T. Nigg, et al., *Low Blood Lead Level Associated with Clinically Diagnosed Attention-Deficit/Hyperactivity Disorder and Mediated by Weak Cognitive Control*, SOCIETY OF BIOLOGICAL PSYCHIATRY 63, 325-31 (2008).

Bruce P. Lanphear, et al., *Low-Level Environmental Lead Exposure and Children's Intellectual Function : An International Pooled Analysis*, Environmental Health Perspectives, July 2005, 894-99.

COMMITTEE ON MEASURING LEAD IN CRITICAL POPULATIONS, NATIONAL RESEARCH COUNCIL, MEASURING LEAD EXPOSURE IN INFANTS, CHILDREN, AND OTHER SENSITIVE POPULATIONS, 3, 16, 64 (1993).

<sup>9</sup> Jessica Wolpaw Reyes, *Environmental Policy as Social Policy? The Impact of Childhood Lead Exposure on Crime*, 7 The B.E. Journal of Economic Analysis & Policy 51, (2007).

Lynch, Michael L., and Paul B. Stretesky. *The relationship between lead and crime*. JOURNAL OF HEALTH AND SOCIAL BEHAVIOR 45(2) (2004).

Herbert Needleman, et. al, *Bone Lead Levels in Adjudicated Delinquents: A Case Control Study*, 24 NEUROTOXICOLOGY AND TERATOLOGY 711, 715 (2002).

Kim Dietrich, et. al., *Early Exposure to Lead and Juvenile Delinquency*, 25 NEUROTOXICOLOGY AND TERATOLOGY 511, 517 (2001).

Herbert L. Needleman, et. al., *Bone Lead Levels and Delinquent Behavior*, 275 JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION 363, 363-69 (1996).

<sup>10</sup> Wright JP, Dietrich KN, Ris MD, Hornung RW, Wessel SD, et al. (2008) Association of Prenatal and Childhood Blood Lead Concentrations with Criminal Arrests in Early Adulthood.

<sup>11</sup> LEAD POISONING SURVEILLANCE REPORT, *supra* note 1.

<sup>12</sup> LEAD POISONING SURVEILLANCE REPORT, *supra* note 1. Of the 8,123 Illinois children six and under who had blood lead levels 10 µg/dL and above, 4,159 were in Chicago.

lead in Chicago is lead poisoned.<sup>13</sup> These figures are based on the Centers for Disease Control and Prevention's definition of lead poisoning as a blood lead level of 10 µg/dL (micrograms of lead per deciliter of blood) or above. Research suggests that children are being harmed by lead paint and showing adverse health effects at lead levels below the 10µg/dL. These children are not yet counted in the reported numbers.<sup>14</sup> Even at concentrations below 10µg/dL, lead may affect cognitive abilities, including arithmetic skills, reading, nonverbal reasoning, and short term memory.<sup>15</sup> Based on this information, the Illinois Department of Public Health estimates that over 81,000 children in Illinois are being harmed by lead paint.<sup>16</sup>

The blood lead levels of U.S. children aged one through six years old dramatically declined from the late 1970s through the early 1990s due primarily to the phase-out of leaded gasoline, the resulting decrease in lead emissions, the elimination of lead used in water pipes, and the ban on lead paint. Since lead is not biodegradable, however, it continues to be a source of lead poisoning in children unless it is properly removed or contained. Most children are lead poisoned in their own homes through exposure to lead dust or paint chips from deteriorated lead paint surfaces, or when lead painted surfaces are disturbed during home renovation or repainting. The greatest risk is lead-contaminated dust generated from the friction of opening and closing windows and doors.<sup>17</sup>

Because older homes are more likely to have lead paint on their windows, doors and walls, and fall into disrepair, the age of housing stock affects the risk of children's exposure to lead hazards. For example, even though lead paint has been banned in the United States since 1978, the Department of Housing and Urban Development found in 2002 that an estimated 24 million housing units still had significant lead based paint hazards in the form of deteriorated paint, dust lead, or bare soil lead.<sup>18</sup> The State of Illinois ranks 10<sup>th</sup> out of the 50 states in the age of its housing stock.<sup>19</sup> In Chicago, more than 70% of the housing units

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<sup>13</sup> LEAD POISONING SURVEILLANCE REPORT, *supra* note 1. Of the 101,033 Chicago children under age six who were tested in 2005, 4,466 had blood lead levels at or above 10 µg/dL in 2005.

<sup>14</sup> In 2008, the City of Chicago Department of Public Health lowered the threshold at which it defines lead poisoned. In Chicago, a confirmed level of lead in human blood of greater than 5µg/dL (five micrograms per deciliter) is now considered lead poisoned. Future Chicago statistics will account for children who are negatively being affected by lead at levels lower than 10µg/dL.

<sup>15</sup> Todd A. Jusko, et al., *Blood Lead Concentrations Less than 10 Micrograms per Deciliter and Child Intelligence at 6 Years of Age*, Environmental Health Perspectives, November 2007.

Richard Canfield, et. al., *Intellectual Impairment in Children with Blood Lead Concentrations below 10 microg per Deciliter*, 348 NEW ENGLAND JOURNAL OF MEDICINE 1517 (2003).

Bruce P. Lanphear, *Cognitive Deficits Associated with Blood Lead Concentrations ≥10 µg/dL in U.S. Children and Adolescents*, 115 PUBLIC HEALTH REPORTS 521, 521-529 (2000).

<sup>16</sup> GET THE LEAD OUT, *supra* note 3.

<sup>17</sup> ILLINOIS DEPARTMENT OF PUBLIC HEALTH, GET THE LEAD OUT: RENOVATION- HOW TO SAFELY REMOVE PAINT, 1 (2002). Also at [http://www.idph.state.il.us/envhealth/pdf/Lead\\_Renovation.pdf](http://www.idph.state.il.us/envhealth/pdf/Lead_Renovation.pdf).

<sup>18</sup> OFFICE OF HEALTHY HOMES AND LEAD HAZARD CONTROL, U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, *The Prevalence of Lead-Based Paint Hazards in U.S. Housing*, Environmental Health Perspectives, October 2002, at A601.

<sup>19</sup> CENTERS FOR DISEASE CONTROL AND PREVENTION, SCREENING YOUNG CHILDREN FOR LEAD POISONING: GUIDANCE FOR STATE AND LOCAL PUBLIC HEALTH OFFICIALS, 15-16 (1997). Also at <http://www.cdc.gov/nceh/lead/guide/1997/pdf/chapter1.pdf>.

were built prior to 1960,<sup>20</sup> and an estimated 88,000 Chicago units are at high risk for lead hazards.

Lead is most hazardous to the nation's 24 million children ages six and under because their brains and nervous systems are still developing. Children ages one to three years are at greatest risk of lead poisoning because of normal hand-to-mouth activity and the increase in mobility, which makes lead hazards more accessible.<sup>21</sup> Children absorb up to 50 percent of the lead they ingest, compared to adults who retain only 10 percent.<sup>22</sup>

Lead can also be transmitted to a fetus if the mother ingests lead while pregnant or has been exposed to lead in the past.<sup>23</sup> During pregnancy, the lead stored in bones is released into the blood stream, and lead crosses the placental barrier throughout the gestation period, including the period during which the central nervous system is formed.<sup>24</sup>

### Lead Poisoning and Housing Court

Most lead cases in Chicago's Housing Court originate when a child has been poisoned.<sup>25</sup> Cases may also be filed in Housing Court before a child has been poisoned if a lead hazard has been identified.<sup>26</sup> Illinois law requires that all children in communities identified as high risk be tested for lead.<sup>27</sup> All other children must be assessed for risk beginning at age 6 months.<sup>28</sup> If a child is found to have an elevated lead level, an inspection of the child's home, childcare facility, and school is done. If the inspector identifies a lead hazard, the property owner receives a notice that includes instructions for abating or mitigating the lead hazard within a set time period. *Abatement* means the removal or encapsulation of all lead-bearing substances in a residential building or dwelling unit.<sup>29</sup> *Mitigation* is defined as the remediation of lead hazards so that the lead bearing substance no

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<sup>20</sup> Of the 1,061,921 housing units in Chicago, 338,945 owner occupied units, and 399,923 rental units were built prior to 1960. U.S. CENSUS BUREAU, CENSUS 2000 SUMMARY FILE 3, MATRICES H36, H37, H38, AND H39, (2003) at <http://factfinder.census.gov>.

<sup>21</sup> Stapleton, *supra* note 6, at 2.

<sup>22</sup> Bone serves as a repository for a large percentage of the lead absorbed or ingested by children and adults. Lead from the skeleton enters into the blood stream during periods of bone mobilization. The mobilization of bone lead is increased during times of high bone turnover, which occurs during rapid growth in early childhood and during pregnancy. See Steve Oliveira et. al., *Season Modifies the Relationship between Bone Lead Levels: The Normative Aging Study*, 57 ARCHIVES OF ENVIRONMENTAL HEALTH 466, 467 (2002).

<sup>23</sup> Brian Gulson et. al., *Pregnancy Increases Mobilization of Lead from Maternal Skeleton*, 130 JOURNAL OF LABORATORY AND CLINICAL MEDICINE 51, 51 (1997).

<sup>24</sup> *Id.*

<sup>25</sup> Jurisdictions take action at different levels of lead poisoning. For example the State of Illinois must inspect dwellings when a child has an elevated lead level of 25 µg/dL or above, but may inspect dwelling once a child's lead blood level reaches 10 µg/dL. 77 Ill. Adm. Code § 845.26(a) (2004); 410 Ill. Comp. Stat. 45/8 (2004). In contrast, Chicago's Municipal Code allows a city representative to inspect certain locales to determine the existence of a lead-bearing substance and require that any hazards be eliminated, without any blood level requirements. Chicago, Ill., Municipal Code §7-4-090 (2004). Chicago, Ill., Municipal Code §7-4-100 (2004).

<sup>26</sup> CHICAGO, ILL., MUNICIPAL CODE § 7-4-100 (2004).

<sup>27</sup> 410 ILL. COMP. STAT. 45/6.2 (2004).

<sup>28</sup> *Id.*

<sup>29</sup> 410 ILL. COMP. STAT. 45/2 (2004).

longer poses an immediate threat to people's health.<sup>30</sup> If the owner fails to complete the recommended abatement or mitigation a case may be filed in Housing Court.

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<sup>30</sup> *Id.*