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TOMORROW'S UNLEADED CHILDREN: CHILD CARE FACILITIES, LEAD PAINT AND THE LAW

*Christopher P. Daignault**

INTRODUCTION

Lead poisoning from exposure to lead-based paint and its dust is rarely at the forefront of discussions pertaining to young children. Provocative or controversial educational reform philosophies and strategies more often than not squelch health issues related to children and their learning experience.¹ Moreover, current trends suggest asthma and diabetes, not lead poisoning, will top the list of children's major health issues.² The threat and adverse effects of lead poisoning, disheartening because they are plainly preventable, nonetheless continue to draw the attention of medical and social researchers despite the disease's small stature in the broader arenas of health and educational reform. Increasing evidence of the disturbing reach of lead's potential harm to children in educational and care facilities outside their homes demonstrates that there is a need to reexamine the relevant modern and historical scientific data and to review

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1. See, e.g., Tracey A. Reeves, *Seeking More Time for the Youngest Students; Backers of All-Day Kindergarten Programs Stress Need to Build a Sturdy Foundation*, WASH. POST, Feb. 27, 2001, at A13. See generally CHILD. DEF. FUND, THE STATE OF AMERICA'S CHILDREN—YEARBOOK 2000 69-75 (2000) [hereinafter YEARBOOK 2000].

2. See YEARBOOK 2000, *supra* note 1, at 37; cf. *id.* at 40-41 (summarizing lead poisoning). But see CHILD. DEF. FUND, THE STATE OF AMERICA'S CHILDREN—YEARBOOK 2001 38-39 (2001) [hereinafter YEARBOOK 2001] (stating that "lead poisoning may be the most serious and most common environmental health hazard for children," even in the wake of an increasing asthma rate).

the adequacy of the present statutory law that purports to protect young children.

Lead, the properties of which are conducive to innumerable uses, was discovered some 5,500 years ago.³ The malleability, stability, and density of the soft metal, among other characteristics, have resulted in lead's ubiquitous application throughout both the ancient and modern worlds. In ancient Rome, lead bonded containers and drinking vessels and sealed water pipes.⁴ Until recently, the plumber was someone who used lead, in Latin *plumbum*, in his work. Further, the ancient Greeks and Romans commonly used a lead-treated grape syrup called *sapa* to preserve and sweeten their fruits and wines.⁵ In the United States, lead was a common additive to gasoline, solder for water pipes, and exterior and interior paint.

Although lead's toxicity was not truly appreciated until the late nineteenth century,⁶ more than a hundred years earlier scholars were perceiving and affirming the harmful effects of lead. In his letter to Benjamin Vaughan dated July 31, 1786, Benjamin Franklin wrote of a widespread case of "Dry Bellyach," of which "the Physicians were of the Opinion, that the Mischief was occasioned by the Use of Lead."⁷ Franklin anxiously wondered "how long a useful Truth may be known and exist, before it is generally receiv'd and practis'd on."⁸ In light of J.L. Gibson's discovery of the toxic effects from exposure to lead paint in 1904⁹ and the

3. Jane S. Lin-Fu, *Lead Poisoning and Undue Lead Exposure in Children: History and Current Status*, in *LOW LEVEL LEAD EXPOSURE: THE CLINICAL IMPLICATIONS OF CURRENT RESEARCH* 5 (Herbert L. Needleman ed., 1980).

4. S. REP. NO. 103-152, at 2 (1993) (providing a brief but comprehensive overview of lead use and effects from ancient times).

5. *Id.* at 1; Lin-Fu, *supra* note 3, at 6.

6. See, e.g., J.L. Gibson et al., *Notes on Lead-poisoning as Observed Among Children in Brisbane*, *TRANSCONTINENTAL 3RD INTERCOLONIAL MED. CONG.* 76-83 (Sydney, 1892) (detailing cases of lead poisoning, its effects, and musing on the cause(s)).

7. Letter from Benjamin Franklin to Benjamin Vaughan (July 31, 1786), http://www.radonpro.com/lead/background/ben_franklin.htm. See also Lin-Fu, *supra* note 3, at 6.

8. Franklin, *supra* note 7.

9. See J.L. Gibson, *A Plea for Painted Railings and Painted Walls of Rooms as the Source of Lead Poisoning Amongst Queensland Children*, 23 *AUSTRALIAN MEDICAL GAZETTE* 149-53 (1904) (concluding at 153, "I shall henceforth, unless I am offered a better explanation, blame paint."); Complaint at 21, Sheldon

constant and continuous contention that poisoning via such exposure to lead is “completely preventable,”¹⁰ it is remarkable that thirty years after the federal Lead Paint Poisoning Prevention Act of 1971,¹¹ and almost one hundred years after the scientific confirmation of lead’s deleterious effects on human health, lead poisoning remains a daily reality and health threat for millions of citizens, especially children.

With newfound concern for the nation’s children came renewed protection and the enactment of the Residential Lead-Based Paint Hazard Reduction Act of 1992 (RLPHRA).¹² Congress had found that lead poisoning was widespread among America’s children, that as many as three million children under the age of six were poisoned, that this was yet another burden shouldered especially by the poor and minority communities, and that the nation’s housing stock was severely contaminated with lead-based paint.¹³ In light of those facts, Congress concluded that the elimination of this preventable threat could be encouraged through abatement or temporary “interim measures” with the national goal of eradicating such hazards “as expeditiously as possible.”¹⁴ The disclosure and provision of information pertaining to lead and the presence of lead in certain residential dwellings mandated by this Act is foundational to contemporary state statutes.¹⁵

Consistent with the federal initiative to rid the nation of childhood lead poisoning, states responded by enacting their own versions of the federal law.¹⁶ Recent national health studies confirm that the removal of lead

Whitehouse, *Att’y Gen. v. Lead Indus. Ass’n*, 2001 WL 345830 (R.I. Super. Apr. 2, 2001) (No. 99-5226) (asserting that Sherwin-Williams knew as early as 1904 of the danger of lead before it began manufacturing its own lead-based paint), available at <http://www.riag.state.ri.us/press/Oct99/complaint.html>.

10. PRESIDENT’S TASK FORCE ON ENVIRONMENTAL HEALTH RISKS AND SAFETY RISKS TO CHILDREN, *ELIMINATING CHILDHOOD LEAD POISONING: A FEDERAL STRATEGY TARGETING LEAD PAINT HAZARDS 1* (2000) [hereinafter TASK FORCE]. See also Lin-Fu, *supra* note 3, at 7 (citing J.L. Gibson’s 1904 conclusion “even then that lead poisoning was preventable”).

11. 42 U.S.C. § 4821 (1994).

12. *Id.* § 4851.

13. See *id.*

14. See *id.*

15. See *id.* § 4852d.

16. See, e.g., MASS. GEN. LAWS ANN. ch. 111, §§ 189-199 (2000), which mandate that “[w]henver a child under six years of age resides in any premises in which any paint[, etc.] . . . contains dangerous levels of lead, the owner shall abate

from the gasoline supply and from the solder in our water pipes, and by warning people of the dangers of lead poisoning before they buy or lease certain residential dwellings, have in fact resulted in a significant decrease in the number of children poisoned by lead.¹⁷ Notwithstanding the positive direction of this legislation, nearly one million children are afflicted with lead poisoning today.¹⁸ The new federal statute's focus, however, remained on the family homestead, doubtlessly assuming that young children would be most and almost exclusively affected by lead-based paint in their homes.

Exposure to lead is no longer neatly contained to the home. A changed economy and cultural sentiment with regard to working women have resulted in fewer at-home parents and increasing numbers of children in child care. This rapid decline in the availability of a parent to provide full-time care to young children has made the child care facility a substantial part of many children's lives.¹⁹ Children who spend most of their "work weeks" at child care facilities may potentially be exposed to countless lead-based hazards without forewarning. To effect the radical elimination proposed by Congress, one would presume that efforts must go to the problem's root, and that lead should be universally removed from all homes and from all child care facilities where children six and under spend measurable amounts of their time. Such facilities are often a child's "home away from home," so parents at least should be informed of the threat and effects of lead poisoning, and be encouraged to have their

or contain said paint[, etc.]. *Id.* § 197(a). *See also* Mass. Rental Housing Ass'n, Inc. v. Lead Poisoning Control Director, 729 N.E.2d 673, 677 (Mass. App. Ct. 2000) (affirming Director's method and manner of testing residences for lead-based paint as well as the issuance of notices about lead poisoning hazards. This holding will facilitate compliance to the State's strict lead law by increasing the likelihood that owners of residential properties for sale and for rent are aware of the presence of lead in their buildings.)

17. *See* CENTERS FOR DISEASE CONTROL AND PREVENTION, NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY III, 1988-1994 [hereinafter NHANES III], available at <http://www.cdc.gov/nceh/lead/images/leadslide2.jpg> (last visited Mar. 10, 2001). Between the 1988-1991 and 1991-1994 national surveys the percentage of poisoned children aged one to five dropped from 8.9 percent to 4.4 percent. *See id.*

18. TASK FORCE, *supra* note 10, at 2.

19. *See* Donald J. Hernandez, *Changing Demographics: Past and Future Demands for Early Childhood Programs*, 5 FUTURE OF CHILDREN (Winter 1995), at http://www.futureofchildren.org/ltc/08_lto.htm.

children screened.

This Comment proposes that the RLPHRA and current federal and state regulations are not likely to effect the elimination of childhood lead poisoning. Part I of this Comment discusses the health effects of lead on children. Part II discloses the quantity and significance of dwelling units in the U.S. housing stock that contain potentially threatening lead. In Part III, this Comment notes the federal and state legislative responses to the increasing population of young children harmed by exposure to lead-based paint. If Part III may be called the "letter of the law," Part IV of this Comment exposes the "spirit of the law." Part IV focuses on the parties at the heart of federal and state lead regulation, young children and pregnant women. Moreover, after discussing mothers and children in the first section, Part IV goes on to argue that children and mothers from all economic, racial and social classes are at risk. In Part V, this Comment addresses the gaps between the purported intention of lead reduction legislation and the absence or insufficiency of statutory language to effect the same. The first section of Part V remarks on the limited nature of federal law and "disclosure." Part V's second section considers state legislation with regard to the regulation of lead-based paint in child care facilities; the different strategies to actualize this goal; the always-present question of the cost of remediation; and the contemporary reality of child care facilities as potential loci of lead exposure. In Part VI, this Comment proffers a model statute that embodies a strict though faithful reading of the congressional intention to rid America of the real and preventable threat of childhood lead poisoning and that proposes to make child care facilities free from lead hazards. Finally, this Comment concludes that mere disclosure of the presence of lead-based paint is insufficient to secure human health and to bring about the elimination of childhood lead poisoning.

I. HEALTH EFFECTS OF LEAD ON CHILDREN

Children are poisoned by lead through inhalation, absorption through the skin, and ingestion.²⁰ Ingestion may be the least common, but it has the greatest effect due to the total amount consumed in comparison to the

20. See Karla A. Francken, Comment, *Lead-Based Paint Poisoning Liability: Wisconsin Realtors, Residential Property Sellers, and Landlords Beware*, 77 MARQ. L. REV. 550, 560 (1994).

amount typically inhaled.²¹ Pica, the craving and consumption of non-food items like paint chips, is associated with a child's normal exploration of his or her surroundings.²² If the child has a visual or, occasionally, an auditory defect, he may "continue to utilize oral exploration."²³ Perhaps in this case pica and consequent lead poisoning are exacerbated because lead-based paint "has a sweet taste and is thus appealing to young children."²⁴ Hence, pica might take the form of teething or gnawing on paint-covered surfaces.²⁵

Lead poisoning, which is presently defined as a lead blood level of ten or more micrograms of lead per deciliter of blood ($\mu\text{g}/\text{dL}$),²⁶ likewise may result from the inhalation of lead-contaminated dust. In the household, such contamination has been discovered to come from the deterioration and break-down of lead-based paint and from contaminated soil tracked indoors,²⁷ with "the contribution of lead-based paint . . . significantly greater than . . . lead-contaminated soil."²⁸ For young children, "[l]ead-based paint remains the most common source of high-dose lead poisoning. . . ."²⁹ Since "[l]ead plays no physiologic role in the human body,"³⁰ even small amounts of lead in the blood stream might threaten a child's health.³¹

21. *See id.* at 560-61.

22. D. JOAN BICKNELL, *PICA: A CHILDHOOD SYMPTOM* 20 (1975).

23. *Id.*

24. Jane Kimball Warren, *Lead Paint: Hazardous to Your Health and to the Real Estate Industry*, 8 *PROB. & PROP.* 16, 16 (1994).

25. *See* Chris Brooke, *Poisoned by Paint: The Baby Who Teethed on Woodwork*, *DAILY MAIL* (England), Dec. 7, 1999, 1999 WL 30206085.

26. TASK FORCE, *supra* note 10, at 2.

27. *See* Bruce P. Lanphear & Klaus J. Roghmann, *Pathways of Lead Exposure in Urban Children*, 74 *ENVTL. RES.* 67, 67 (1997).

28. *Id.* at 72.

29. Francken, *supra* note 20, at 560.

30. Jane S. Lin-Fu, *The Evolution of Childhood Lead Poisoning as a Public Health Problem*, in *LEAD ABSORPTION IN CHILDREN: MANAGEMENT, CLINICAL, AND ENVIRONMENTAL ASPECTS* 1 (J. Julian Chisholm, Jr. & David M. O'Hara eds., 1982).

31. For a scientific survey of health risks caused by lead exposure to animals and humans, see *RISK ASSESSMENT INFORMATION SYSTEM (RAIS), EXECUTIVE SUMMARY* [hereinafter *RAIS EXECUTIVE SUMMARY*] (affirming that "[t]he systematic toxic effects of lead in humans have been well-documented. . ."), at <http://risk.lsd.ornl.gov/tox/profiles/lead.shtml> (last updated Oct. 31, 1997).

Though the quantity of lead inhaled and absorbed through the lungs may be very small, even negligible, the cumulative effect of low-level exposure may prove detrimental later in life.³² One author reasons that “[b]ecause its absorption is cumulative, severe and permanent damage can occur to a person before any symptoms are noticed.”³³ It is for this reason that the “silent epidemic” of lead poisoning remains partially hidden.³⁴ In fact, the Health Research Institute recently issued a report on the DNA testing of a lock of Beethoven’s hair, which concluded that the famous composer almost certainly suffered from “plumbism,” or lead poisoning, likely gained by swimming in or drinking lead-contaminated water over time.³⁵ Therefore, “[t]he focus of both clinical and laboratory investigation has shifted from examining the severe neurological sequelae of lead poisoning such as mental retardation and blindness to exploring subtle psychological deficits. . . .”³⁶ Damage to the brain and reproductive systems, for example, may not be readily and easily detectable. Indeed, the full realization of some damage might be delayed until adulthood.³⁷

At highly elevated blood levels (EBLs), lead poisoning takes the heinous forms of “sterility, abortion, stillbirth, and premature delivery,”³⁸ impaired nerve functioning, damage to the blood forming system, kidney and brain damage, and death.³⁹ The Centers for Disease Control and Prevention (CDC) report that “decreased intelligence, impaired neurobehavioral development, decreased stature and growth, and impaired hearing acuity” are associated with lower levels of lead in one’s blood.⁴⁰ Furthermore, Congress found that lead poisoning at low levels

32. See Martha Mahoney, *Four Million Children at Risk: Lead Paint Poisoning Victims and the Law*, 9 STAN. ENVTL. L.J. 46, 50 (1990).

33. Warren, *supra* note 24, at 16.

34. See Philip J. Landrigan & John W. Graef, *Pediatric Lead Poisoning in 1987: The Silent Epidemic Continues*, 79 PEDIATRICS 582, 582-83 (1987).

35. See Martha Irvine, *The Clues in Beethoven’s Hair*, ASSOCIATED PRESS, Oct. 17, 2000, available at http://abcnews.go.com/sections/science/dailynews/beethoven_hair001017.html.

36. Lin-Fu, *supra* note 30, at 8.

37. See Theodore I. Lidsky & Jay S. Schneider, *Evaluating the Poisoned Mind*, TRIAL, Sept. 2000, at 32, 37, 39.

38. Lin-Fu, *supra* note 3, at 6.

39. TASK FORCE, *supra* note 10, at 11.

40. CENTERS FOR DISEASE CONTROL AND PREVENTION, CDC’S LEAD FACT SHEET [hereinafter CDC LEAD FACT SHEET], at

causes “reading and learning disabilities, impaired hearing, reduced attention span, hyperactivity, and behavior problems.”⁴¹ Simply put, “[l]ead poisoning affects virtually every system in the body, and often occurs with no distinctive symptoms.”⁴² Invisible effects presumably postpone immediate treatment, which logically infers that low-level exposure may develop gradually into a high EBL before the child receives proper medical attention.

Effective treatment for lead poisoning, in addition to the routine removal of the poisoned child from the source of exposure, usually entails chelation therapy.⁴³ Chelation takes its name from the Greek *chele* which means “claw.”⁴⁴ The treatment is so named because the chelating agent—a laboratory-made protein called ethylene diamine tetraacetic acid (EDTA)—“binds with metals, locks them with its chelating pincers, and transports them out of the body.”⁴⁵ Removal from and assessment of the source of exposure, in addition to chelation therapy that treats the lead poisoning itself, is what is known as “secondary prevention”: health is protected by deterring further threat.⁴⁶

II. PRESENCE OF LEAD-BASED PAINT IN U.S. HOUSING

In 1990, the U.S. Department of Housing and Urban Development (HUD) estimated that about sixty-four million homes contained lead-

<http://www.cdc.gov/nceh/lead/factsheets/leadfcts.htm> (last modified June 9, 2001).

41. 42 U.S.C. § 4851 (1994). These findings were informed by studies done by the Department of Health and Human Services. See, e.g., U.S. DEP'T OF HEALTH AND HUMAN SERVICES, NATURE AND EXTENT OF LEAD POISONING IN CHILDREN IN THE UNITED STATES: A REPORT TO CONGRESS, June 1987, available at <http://www.hhs.gov/aspe/pic/8/pic3668.txt>; LEAD POISONING: FEDERAL HEALTH CARE PROGRAMS ARE NOT EFFECTIVELY REACHING AT-RISK CHILDREN, June 1992, available at <http://www.hhs.gov/aspe/pic/7/pic7217.txt>; THE EXTENT OF LEAD HAZARDS IN CHILD CARE FACILITIES IS UNKNOWN Aug. 1992, available at <http://www.hhs.gov/aspe/pic/3/pic5113.txt> (confessing that “there are few programs [addressing lead hazards] which are specific to [child care facilities or schools]”).

42. CDC LEAD FACT SHEET, *supra* note 40.

43. MORTON WALKER, THE CHELATION WAY: THE COMPLETE BOOK OF CHELATION THERAPY 48 (1990).

44. See *id.* at 22.

45. *Id.* at 23.

46. See Mahoney, *supra* note 32, at 54.

based paint,⁴⁷ a primary source of lead exposure. The President's Task Force, assembled to form a strategy toward eliminating childhood lead poisoning, recognized that "[a]ny house with lead paint could eventually pose a hazard to young children,"⁴⁸ and identified some "24 million pre-1960 dwelling units in 1999 at risk of having lead paint hazards."⁴⁹ Though the number of at-risk homes continues to decline due to demolition and rehabilitation, the annual rate of decrease is just over a meager two percent.⁵⁰ In 1999, there were 34.1 million high risk dwelling units and 67.2 million units categorized as low risk.⁵¹ Over eighty percent of all homes built prior to 1978, the year marking the end of lead-based paint use, contain lead-based paint.⁵²

A significant correlation exists between the child's residence, where he normally spends large amounts of time, and lead poisoning.⁵³ "[N]ormal play activities expose [children] to lead paint hazards and lead-contaminated dust and soil"; "normal hand-to-mouth activity" increases the likelihood of high exposure and poisoning.⁵⁴ Research confirms that "lead-contaminated house dust is the major source of lead intake for children who have low to moderately elevated blood lead levels,"⁵⁵ for it can be assumed that the poisoned children spent considerable amounts of their time in their residences, the source of exposure. One report testifies that despite current federal and state regulations that have afforded the public much greater safety from lead-based paint hazards, "lead-based paint, house dust, and soil remain important reservoirs for childhood exposure."⁵⁶ Where pica was once thought to be the sole or central source

47. TASK FORCE, *supra* note 10, at 13.

48. *Id.* at 21.

49. *Id.* at 22.

50. *Id.* at A-15 (Appendix).

51. *Id.*

52. CENTERS FOR DISEASE CONTROL AND PREVENTION, WHAT EVERY PARENT SHOULD KNOW ABOUT LEAD POISONING IN CHILDREN [hereinafter WHAT EVERY PARENT SHOULD KNOW], *available at* <http://www.cdc.gov/nceh/lead/faq/cdc97a.htm> (last modified June 9, 2001).

53. *See* TASK FORCE, *supra* note 10, at 12.

54. *Id.* at 11.

55. Bruce P. Lanphear et al., *The Contribution of Lead-Contaminated House Dust and Residential Soil to Children's Blood Lead Levels*, 79 ENVTL. RES. 51, 58 (1998).

56. Bruce P. Lanphear et al., *A Side-by-Side Comparison of Dust Collection*

of EBLs,⁵⁷ now the inhalation of lead-contaminated dust—notably in those areas where the child spends a significant portion of his or her day—is also accepted as a pathway of exposure to lead.⁵⁸

In the United States, approximately two hundred children die annually from lead poisoning, and another ten thousand suffer various deleterious effects.⁵⁹ More than 1.7 million of the nation's children have unacceptably high blood lead levels (BLLs).⁶⁰ These numbers put lead poisoning at the very top of the list of environmental health problems affecting American children today.⁶¹ Basing its findings on the most recent National Health and Nutrition Examination Survey (NHANES III),⁶² a 1997 CDC report initially estimated the number of U.S. children aged one to five with BLLs of 10 µg/dL or greater at 930,000.⁶³ Presently, CDC approximates the number of children in this country with EBLs who are under six years old to be 890,000.⁶⁴

As the magnitude and effects of lead poisoning gained greater attention in the mid-1960s, the nation became aware that “[t]he problem was not confined to the poor or to the eastern part of the country; it was in fact a nationwide phenomenon.”⁶⁵ Although poorer children and children in

Methods for Sampling Lead-Contaminated House Dust, 68 ENVTL. RES. 114, 115 (1995).

57. See Michael D. McElvaine et al., *Prevalence of Radiographic Evidence of Paint Chip Ingestion Among Children with Moderate to Severe Lead Poisoning, St Louis, Missouri, 1989 Through 1990*, 89 PEDIATRICS 740, 740 (1992); Mahoney, *supra* note 32, at 49.

58. See McElvaine, *supra* note 57, at 740.

59. Walker, *supra* note 43, at 48.

60. Karen Crampton, *Lead-Based Paint, It's Here in Vermont*, 22 VT. B.J. & L. DIG. 19, 19 (1996).

61. See Michael W. Shannon & John W. Graef, *Lead Intoxication in Infancy*, 89 PEDIATRICS 87, 87 (1992); TASK FORCE, *supra* note 10, at 3.

62. NHANES III, *supra* note 17.

63. Centers for Disease Control and Prevention, U.S. Dep't of Health and Human Services/Pub. Health Service, *Update: Blood Lead Levels—United States 1991-1994*, 46 MORBIDITY & MORTALITY WKLY. REP., 141, 142 (1997) [hereinafter *Update*], available at <http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/00048339.htm>. The Report confesses in an erratum that 930,000 was an overestimate, and that after more accurate adjustment, the number of children in the U.S. between one and five with EBLs is closer to 890,000. See *id.*

64. WHAT EVERY PARENT SHOULD KNOW, *supra* note 52.

65. Lin-Fu, *supra* note 3, at 10.

urban settings are more likely to be exposed to and poisoned by lead,⁶⁶ lead “presents a threat to children in dilapidated housing, as well as to middle class children in expensive old homes.”⁶⁷ The disease knows no bounds, racial, social or economic. Therefore, the conclusion some academics have made that an environmental justice frame through which to view this persistent health problem is insufficient is probably accurate.⁶⁸ Lead poisoning continues to be seen as a “silent epidemic” that potentially threatens any one of America’s children, even long into the child’s future.⁶⁹

III. LEGISLATIVE RESPONSE TO LEAD POISONING IN CHILDREN

A. Federal Statutes and Regulations

With a spirit of magnanimous and well-founded concern, in 1971 Congress prohibited the use of lead in cooking, drinking and eating utensils; on toys and furniture; and in residential structures.⁷⁰ Under the Lead-Based Paint Poisoning Prevention Act (LPPPA),⁷¹ housing receiving federal assistance was protected in a limited fashion from lead-based paint hazards through the distribution of information pamphlets to purchasers and tenants, periodic risk assessments and interim controls,⁷² inspections, reductions of hazards in the course of rehabilitation of units, abatement in the course of substantial rehabilitation, and notice to the occupants.⁷³ The LPPPA sought to require the inspection and abatement of lead-based paint hazards by 1995 in all federally owned pre-1960 target housing, that

66. See *Update*, *supra* note 63; TASK FORCE, *supra* note 10, at A-3.

67. Lin-Fu, *supra* note 30, at 7.

68. See Mark A. Shibley & Annette Prosterman, *Silent Epidemic, Environmental Injustice, or Exaggerated Concern? Competing Frames in the Media Definition of Childhood Lead Poisoning as a Public Health Problem*, 11 *ORG. & ENV'T* 33, 33 (1998).

69. See *id.*

70. See Lead-Based Paint Poisoning Prevention Act of 1971, 42 U.S.C. § 4831 (1994). Congress commissioned the Secretary of Health and Human Services, the Secretary of Housing and Urban Development, and the Consumer Product Safety Commission to prohibit the use of lead in food-related utensils, in certain residential structures, and on toys and furniture.

71. *Id.* § 4821.

72. See *infra* pp. 108-210 (discussing interim controls).

73. 42 U.S.C. § 4822(a)(1) (1994).

is, in most federally owned residential housing.⁷⁴ However, the statute was crafted to include only the inspection (and not the abatement) of housing constructed between 1960 and 1978.⁷⁵ This exception notwithstanding, any publicly assisted housing in which an inspection revealed paint with a lead level of 1.0 µg/cm² or 0.5 percent by weight or more would nonetheless merit abatement, that is, some measure of removal or containment.⁷⁶

In 1992, Congress expanded the regulation of lead in the Residential Lead-Based Paint Hazard Reduction Act, commonly known as Title X.⁷⁷ Congress based its legislation on the finding that children under age six poisoned by lead numbered as high as three million; that even such low-level poisoning “causes intelligence quotient deficiencies, reading and learning disabilities, impaired hearing, reduced attention span, hyperactivity, and behavior problems”; and that the U.S. housing stock contained more than three million tons of lead spread out in the form of lead-based paint.⁷⁸ Section 1018 of Title X mandates the disclosure of information concerning lead upon the transfer—the sale or lease—of residential property.⁷⁹ Regulations for such disclosure were promulgated jointly in 1996 under Section 1018 by HUD and the Environmental Protection Agency (EPA).⁸⁰ These notification and disclosure regulations are referred to collectively as the Disclosure Rule.

Title X and the subsequent Disclosure Rule also codified interim controls. Interim measures, such as maintaining lead-based paint surfaces in good condition and taking steps to prevent further deterioration, were to be implemented immediately to address the serious issue and continuing threat of lead poisoning.⁸¹ The explicit purpose of the Act, however, was not to hold the menace at bay, but rather “to develop a national strategy” and necessary enforcement infrastructure “to eliminate

74. *Id.* § 4822(a)(3)(A).

75. *Id.* § 4822(a)(3)(B).

76. *Id.* § 4822(c)-(d).

77. Residential Lead-Based Paint Hazard Reduction Act of 1992, tit. X, Pub. L. No. 102-550, 106 Stat. 3897-3926 (1992) (codified as amended at 42 U.S.C. §§ 4851-4856 (1994)).

78. 42 U.S.C. § 4851 (1994).

79. *Id.* § 4852d.

80. See HUD Disclosure Rule, 24 C.F.R. pt. 35, subpt. H (2001); EPA Disclosure Rule, 40 C.F.R. pt. 745, subpt. F (2001).

81. See 42 U.S.C. § 4851b(13) (1994).

lead-based paint hazards in all housing *as expeditiously as possible*.⁸² The interim measures were to be just that, a temporary strategy, on the path to permanent elimination. After nearly a decade of such interim controls, the pathway to lead exposure remains patently open.

The Disclosure Rule obliges sellers and lessors to disclose certain knowledge, provide specific information, grant the purchaser or lessee a period to assess or inspect the property and certify that these obligations have been met. According to the rule, a purchaser or lessee must be provided an EPA-approved lead hazard information pamphlet.⁸³ The seller or lessor must also disclose information pertaining to the presence of lead paint hazards in the housing to be sold or leased to any purchaser, lessee and agent.⁸⁴ Records or reports relating to lead-based paint and/or lead-based paint hazards must likewise be provided.⁸⁵ The Rule affords a purchaser a ten-day period to conduct a risk assessment or inspection of the property for such hazards, which may be expressly waived.⁸⁶ The Disclosure Rule also proposes specific language for a Lead Warning Statement to be included in the contract for sale or lease.⁸⁷ Further, the

82. *Id.* § 4851a (emphasis added).

83. *See* 24 C.F.R. § 35.88(a)(1) (2001); 40 C.F.R. § 745.107(a)(1) (2001). *See also, e.g.*, ENVIRONMENTAL PROTECTION AGENCY, PROTECT YOUR FAMILY FROM LEAD IN YOUR HOME, Doc. No. EPA747-K-99-001 (1999), *available at* <http://www.epa.gov/lead/nlicdocs.htm>.

84. 40 C.F.R. § 745.107(a)(2)-(3) (2001).

85. *Id.* § 745.107(a)(4).

86. *Id.* § 745.110.

87. *See id.* § 745.113(a)(1), (b)(1). The seller's Lead Warning Statement should read:

Every purchaser of any interest in residential real property on which a residential dwelling was built prior to 1978 is notified that such property may present exposure to lead from lead-based paint that may place young children at risk of developing lead poisoning. Lead poisoning in young children may produce permanent neurological damage, including learning disabilities, reduced intelligence quotient, behavioral problems, and impaired memory. Lead poisoning also poses a particular risk to pregnant women. The seller of any interest in residential real property is required to provide the buyer with any information on lead-based paint hazards from risk assessments or inspections in the seller's possession and notify the buyer of any known lead-based paint hazards. A risk assessment or inspection for possible lead-based paint hazards is recommended prior to purchase.

40 C.F.R. § 745.113(a)(1) (2001).

Rule requires that a purchaser or lessee certify that he or she has received lead disclosure information.⁸⁸

The EPA cautiously enforces the federal law, evenhandedly applying its own enforcement response policy (ERP) as guidance.⁸⁹ The ERP discusses violations of the Disclosure Rule; corresponding civil monetary penalties; and mitigating or adjustment factors such as ability to pay, history of prior violations and other factors as justice may require.⁹⁰ Perhaps caution and fairness, or the restricted nature of the lead disclosure law itself, have dulled the teeth of contemporary enforcement. Thus the first successful lawsuits against landlords and their agents, notable for the “egregious” violations, only recently appeared in June and July 2000.⁹¹

The lessor’s Lead Warning Statement should read:

Housing built before 1978 may contain lead-based paint. Lead from paint, paint chips, and dust can pose health hazards if not managed properly. Lead exposure is especially harmful to young children and pregnant women. Before renting pre-1978 housing, lessors must disclose the presence of lead-based paint and/or lead-based paint hazards in the dwelling. Lessees must also receive a federally approved pamphlet on lead poisoning prevention.

40 C.F.R. § 745.113(b)(1) (2001).

88. *Id.* § 745.113(a)(2)-(7), (b)(2)-(6).

89. *See generally* ENVIRONMENTAL PROTECTION AGENCY, SECTION 1018—DISCLOSURE RULE ENFORCEMENT RESPONSE POLICY (2000) [hereinafter ERP], available at <http://www.epa.gov/oeca/ore/tped/lead.pdf>.

90. *See generally* ERP, *supra* note 89, at App. D: Civil Penalty Assessment Worksheet.

91. *See In re Billy Yee*, No. TSCA-7-99-0009 (June 6, 2000), 2000 EPA ALJ LEXIS 51 (assessing Missouri landlord a penalty of \$29,700 for six violations of the Disclosure Rule), *aff’d* TSCA Appeal No. 00-2 (EAB May 29, 2001), *appeal docketed*, No. 01-2627 (8th Cir. Aug. 9, 2001). For a summary of the case see Press Release, U.S. Environmental Protection Agency Headquarters, Missouri Landlord Assessed Penalties for Lead Based Paint Violation (June 29, 2000) available at <http://yosemite.epa.gov/opa/admpress.nsf>. *See also In re Ric Temple and Paul Nay & Associates*, No. TSCA-5-99-015 (July 7, 2000), available at <http://www.epa.gov/oalj/orders/temple3.pdf> (penalizing Indiana real estate agents \$29,700 for seven violations). The Department of Justice recently indicted a negligent landlord in its first-ever criminal prosecution related to the federal lead-hazard disclosure rule. *See Sewell Chan, Landlord Cited in Lead Crackdown*, WASH. POST, Mar. 15, 2001, at B3.

B. State Statutes and Regulations

The federal government has done nothing to prevent states from enacting stricter legislation. Presumably state legislation would be more appropriate than a uniform, heavy-handed national law, because individual state legislatures could more accurately discern the level of need in their localities.

Section 1021 of Title X amends the Toxic Substances Control Act⁹² by adding Title IV, "Lead Exposure Reduction."⁹³ Section 404 of Title IV approves the development by states of their own lead prevention programs to be applied in lieu of the federal program, but subject to federal standards.⁹⁴ Furthermore, in the joint regulations issued by HUD and EPA, the regulated community—including sellers, lessors and their agents—is not relieved of the responsibility to comply with state or local laws based on anything in Subpart H of HUD's Part 35 or Subpart F of EPA's Part 745.⁹⁵ States are explicitly and implicitly encouraged to promulgate and promote programs appropriate to their own situations.

In accord with federal law, the minimum requirements of state statutes typically amount to limited educational opportunities, resulting from the mere provision of information on lead-based paint hazards and the disclosure of any relevant records or reports pertaining to the presence of lead in the pre-1978 residential dwelling for sale or for lease. Federal law obliges certain public education, for example through the EPA-approved lead information pamphlets, leaving it up to the states to legislate more exacting prevention programs.

While some states have elected to maintain their laws at the minimal federal level,⁹⁶ others have imposed slightly more rigorous laws that focus on licensing and certification programs for lead-based paint activities and generally provide for the inspection, risk assessment and abatement of

92. 15 U.S.C. § 2601 (2000).

93. Lead Exposure Reduction Act, Pub. L. No. 102-550, 106 Stat. 3912-24 (1992) (codified as amended at 15 U.S.C. § 2601 (2000)).

94. See 15 U.S.C. § 2684(a) (2000).

95. See 24 C.F.R. § 35.98 (2001); 40 C.F.R. § 745.119 (2001).

96. As illustration, Texas state law prohibits any program established for the eligibility for federal lead-based paint abatement funds to exceed the minimum requirements set out for such in federal law. See TEX. REV. CIV. STAT. ANN. art. 9029, § 3(c) (Vernon 2000).

lead-based paint hazards.⁹⁷ Moreover, a less stringent lead poisoning prevention program might contain a comprehensive educational component, which is a logical extension of the federal program, rather than oblige citizens to conduct more costly interim controls or abatement.⁹⁸ Surprisingly, not every state's statutory law addresses child care facilities—day-care centers, nursery schools, preschools, kindergartens and residential dwellings used for child care—under the rubric of childhood lead poisoning prevention. Those that do address child care or child-occupied facilities vary greatly in their regulatory schemes.⁹⁹ None mandate complete and permanent lead abatement, here read “removal,” as part of their licensing requirements.

IV. THE PROTECTED COMMUNITY

A. Mothers and Children

Prefacing the central purpose of the Residential Lead-Based Paint Hazard Reduction Act of 1992, which is “to eliminate lead-based paint hazards in all housing as expeditiously as possible,” Congress first found that lead poisoning was excessive among children under six, to the extent of three million afflicted children.¹⁰⁰ HUD and EPA incorporated this finding in their regulations, exempting housing for the elderly or persons with disabilities from the definition of “target housing,” *unless a child under six years old* resides or is expected to reside in such a dwelling.¹⁰¹

97. See, e.g., KAN. STAT. ANN. § 65-1,201(g) (1999); MICH. COMP. LAWS ANN. § 333.5458(2) (West 2000); TEX. REV. CIV. STAT. ANN. art. 9029, § 2(4) (Vernon 2000).

98. See, e.g., KAN. STAT. ANN. § 65-1,202(a)(8) (1999); MICH. COMP. LAWS ANN. § 333.5474(1)(b) (West 2000).

99. See, e.g., CAL. EDUC. CODE § 32242 (Deering 2000) (requiring that teachers, other school personnel, and parents be notified within 45 days when a school, including a public preschool or day care facility, is found to have significant risk factors for lead); TEX. CIV. STAT. ANN. art. 9029, § 3 (Vernon 2000) (establishing a program to certify persons involved in lead-based paint activities in child-occupied facilities); VT. STAT. ANN. tit. 18, §§ 1758, 1761 (1998) (detailing the “essential maintenance practices” to be followed to avoid liability for negligence).

100. 42 U.S.C. §§ 4851(1), 4851a(1) (1994).

101. See 24 C.F.R. § 35.86 (2001); 40 C.F.R. § 745.103 (2001) (emphasis added).

Thus, from the beginning, the regulation of lead has been professedly biased in favor of protecting young children.

In its informative introduction to the proposed Lead Exposure Reduction Act of 1993, the Senate explained that “[c]hildren have less bone tissue in which lead is stored, leaving more lead in the blood that is free to exert toxic effects on various body organs.”¹⁰² In fact, young children are not the only ones susceptible to the menacing threat of lead-based paint hazards. Exposure to lead is also hazardous to the unborn. Lead traveling through a pregnant woman’s bloodstream can cross the placenta and accumulate in the fetus.¹⁰³ Their unique vulnerability to the toxic effects of even limited quantities of residential lead-contaminated dust puts young children and pregnant women at great risk.¹⁰⁴ Lawmakers have responded to the unique susceptibility that pregnant women and children under six have to lead poisoning.

B. Crossing Demographic Borders

Although “minority and low-income communities [are] disproportionately affected,”¹⁰⁵ presumably because the risks associated with lead-based paint most seriously affect those children who live in older and dilapidated housing,¹⁰⁶ the threat of lead poisoning and its effects nevertheless transcends social, racial and economic categories.¹⁰⁷ Studies show that lead’s harmful influence on intelligence crosses such boundaries.¹⁰⁸ Reduced intelligence and cognitive ability may translate into lower levels of economic productivity, handicapped social skills, aggressive and violent behavior and criminal activity.¹⁰⁹ Such a reduction

102. S. REP. NO. 103-152, at 1 (1993). See TASK FORCE, *supra* note 10, at 11.

103. See Warren, *supra* note 24, at 17.

104. See Jane Schukoske, *The Evolving Paradigm of Laws on Lead-Based Paint: From Code Violation to Environmental Hazard*, 45 S.C. L. REV. 511, 515-16 (1994).

105. 42 U.S.C. § 4851 (1994).

106. See TASK FORCE, *supra* note 10, at 13.

107. See Kathryn R. Mahaffey, *Exposure to Lead in Childhood—The Importance of Prevention*, 327 NEW ENG. J. MED. 1308, 1308 (1992).

108. See, e.g., P.A. Baghurst, *Environmental Exposure to Lead and Children’s Intelligence at the Age of Seven Years—The Port Pirie Cohort Study*, 327 NEW ENG. J. MED. 1279-84 (1992).

109. See *Lead Effects Still Harmful Over Years*, N.Y. TIMES, Jan. 11, 1990, at B10 [hereinafter *Lead Effects*]; Judy Mann, *Chemicals and Crime: A Truly Toxic*

challenges democracy itself by restricting the mental abilities of our citizenry to intellectually engage current political ideas and participate in robust discourse. Moreover, this reduced intelligence curtails the generation of varied cultural and economic developments and their products. Simply put, decreased intellectual acumen due to lead poisoning restricts good politics as well as business. Exposure to lead-based paint, therefore, affects citizens from whichever economic, racial or social class, resulting in diminished political, social, cultural and economic performance.

1. Intelligence Quotient

Competent studies conclude that a child's intelligence quotient (IQ) is endangered by EBLs, even after adjustment for varying parental education and socioeconomic factors.¹¹⁰ More importantly, the neurological damage is permanent. Not even aggressive chelation therapy will restore a severely impaired IQ, for "no therapy can replace dead neurons."¹¹¹ The potential threat of exposure to lead-based paint must be addressed and legally prevented before incurable effects appear. Further, what were once thought to be safe lead levels are no longer so.¹¹² The effects of these lower levels are augmented by poverty.¹¹³ Although proper nutrition and quality education may make up for some of the intellectual challenges occasioned by lead exposure, not all children are blessed with such fortune.¹¹⁴

Besides the immediate disturbance of the neurologic processes visited upon those exposed to lead by way of consumption of lead-based paint

Effect, WASH. POST, May 26, 2000, at C11.

110. See RAIS EXECUTIVE SUMMARY, *supra* note 31, § 3.1.2; Landrigan, *supra* note 34, at 582-83. For a detailed argument against the claim that lead detrimentally affects IQ, see INTERNATIONAL CENTER FOR TOXICOLOGY AND MEDICINE, CHILDHOOD LEAD LEVELS AND FUNCTIONAL IMPAIRMENT (1999) (asserting that "[i]f lead in the body contributes to IQ and performance, it is a very minor contributor."), at <http://www.ictm.com/articles/ICTM556.html>.

111. Landrigan, *supra* note 34, at 583.

112. See *Lead Poisoning: Millions of Kids Affected, Still at Risk*, AM. HEALTH LINE, Dec. 14, 1999, at <http://www.americanhealthline.com>.

113. See Lidsky, *supra* note 37, at 37.

114. See generally Kay Breunig et al., *Dietary Calcium Intakes of Urban Children at Risk of Lead Poisoning*, 107 ENVTL. HEALTH PERSPECTIVES 431 (1999).

chips or inhalation of lead-based paint dust, other “secondary problems” directly related to the lead poisoning may develop over time.¹¹⁵ Social and education difficulties subsequent to exposure may lead to “[t]he ultimate result [which], particularly in teenage boys, is aggression and acting-out behavior.”¹¹⁶ Low grades and the threat of not being able to finish high school are the symptoms of mental impairment that youngsters sadly will not outgrow.¹¹⁷

2. Violence and Delinquency

Of the many contributing variables to delinquent behavior, the resultant biochemical changes from a brain poisoned by lead are likely to be part of what makes some people act in a violent and criminal manner.¹¹⁸ Herbert L. Needleman, a recognized expert in the field of lead toxicology, followed the toxic effects of lead in 300 boys, witnessing measurable delinquent behavior and acting out.¹¹⁹ Accordingly, Dr. Needleman estimates that high lead exposure contributes to between eleven and thirty-eight percent of delinquency in the U.S.¹²⁰ After confirming his findings in a recent University of Pittsburgh study,¹²¹ Dr. Needleman candidly opined:

Of all the causes of juvenile delinquency, lead exposure is perhaps the most preventable. These results should be a call to action for legislators to protect our children by requiring landlords to not simply disclose known instances of lead paint in their properties, but to remove it.¹²²

Furthermore, because the basis of such criminal behavior is likely unknown to authorities, courts typically do not appropriately address the

115. See Lidsky, *supra* note 37, at 39.

116. *Id.*

117. See *Lead Effects*, *supra* note 109, at B10.

118. See *Study Links Lead Exposure to Child Delinquency*, APBNEWS, May 16, 2000, at http://www.apbnews.com/safetycenter/family/2000/05/16/lead0516_01.html.

119. See Mann, *supra* note 109, at C11.

120. See *id.*

121. See Press Release, UPMC Health System News Bureau, Pitt Research Shows Early Lead Exposure is a Significant Cause of Juvenile Delinquency (May 15, 2000) (quoting Dr. Herbert L. Needleman’s remarks about the results of his latest study), at http://www.upmc.edu/newsbureau/wpic/needleman_lead.htm.

122. *Id.*

real issue: lead-based delinquency.¹²³ The costs of addressing the harm caused to individuals by lead exposure through the penal system may be substantially greater than first imagined.¹²⁴

3. *Protecting Buyers and Lessees*

Buyers and lessees of residential dwellings have been broadly, though only partially, protected by the Disclosure Rule. Protection of children under six and pregnant women is emphasized through the prosecution of egregious violations as outlined in enforcement guidelines.¹²⁵ In the

123. See Jim Haner, *Victims of Lead Unnoticed by Courts*, BALT. SUN, Oct. 8, 2000, at A1. See also Jim Haner, *Lead's Lethal Legacy Engulfs Young Lives; Epidemic: With Poison in Their Blood, Thousands of Baltimore's Children Contribute to Unsettled Classrooms and Violent Neighborhoods*, BALT. SUN, Jan. 20, 2000, at A1. Dr. Ellen K. Silbergeld, a national expert on lead toxicology at the University of Maryland School of Medicine, avers that “[o]ur priorities are completely backwards. Every time this [issue of lead exposure prevention and enforcement] has come before the legislature, we are told that a serious enforcement program to prevent this would be too expensive—as if we aren’t paying for this already. In terms of criminal justice, public health and schools, the costs are virtually incalculable at this point, not to mention what it does to the kids.” Haner, *Lead's Lethal Legacy*, at A1. Dr. Herbert L. Needleman, the renown expert on lead from the University of Pittsburgh Medical School contends that “[i]n some populations, [exposure to lead] may be the most important factor in determining a broad range of neuromotor, psychosocial and behavioral pathologies—poor cognitive performance, hyperactivity and aggression being particularly well-established traits.” *Id.*

124. In Washington, D.C., for example, where both housing containing lead-based paint and crime are common, the immediate and limited costs of abatement may be minimal compared to the exponential effects of non-abatement played out through the penal process. However, landlords and property owners nonetheless have fought the city’s strict lead paint law for seventeen years, and are rejecting a less stringent proposal, maintaining that “the bill would be too costly to enforce and would put more pressure on an already tight affordable housing market.” Sewell Chan, *Lead's Toll on D.C. Children; Hundreds are Exposed Each Year Despite City's Safety Law*, WASH. POST, Nov. 29, 2000, at B1.

125. See ERP, *supra* note 89, at 11 (stating that “EPA will reduce civil penalties in an enforcement action if the responsible party provides EPA with documentation that no child under the age of eighteen or pregnant woman (which affects the violation’s extent level) was present in that target housing at the time of the Section 1018 violation(s).”); *id.* at B-1 (App. B) (outlining the Penalty Matrices, with “Level 1” constituting egregious violations.). For an example of what are considered egregious violations, and what are likely to be prosecuted, see

broadest sense, those protected by the Disclosure Rule are the lessees and purchasers of target housing, that is, residential dwelling units constructed prior to 1978.

V. LACUNAE IN THE LAW

A. *The Limited Purpose of Federal Law*

1. *Exceptions to the Rule*

The federal lead laws embody what is agreeable at the lowest common denominator. According to the statute's plain language, the reasoning behind the RLPHRA runs as such: If lead in one's blood produces harmful effects, and if children and pregnant women are more adversely affected because of their physiology, nutritional demands and social habits, then where and how these groups are significantly exposed to lead-based hazards ought to be regulated so as to promote human health. Since children and mothers normally spend significant amounts of their time in their homes, which are either leased or purchased residential dwellings, they should at least be made aware of potential threats due to the lead-based paint that was likely used on the walls of these units before 1978. Therefore, disclosure to renters and buyers of residential property built before 1978 should be required by all lessors and sellers. Federal law mandates at least this much.¹²⁶

Disclosure itself, however, is not an absolute requirement. There are several exceptions and exemptions to the Disclosure Rule. Target housing at foreclosure sales, leases of housing found to be lead-free, short term leases of one hundred days or less, and renewals of existing leases are excepted from the purview of disclosure.¹²⁷ Moreover, zero-bedroom dwellings (e.g., studio apartments or individual rooms in a residential dwelling)¹²⁸ and housing for the elderly or for persons with disabilities—

In re Billy Yee, No. TSCA-7-99-0009, 2000 EPA ALJ LEXIS 51, at *10-11 (June 6, 2000), *aff'd* TSCA Appeal No. 00-2 (EAB May 29, 2001), *appeal docketed*, No. 01-2627 (8th Cir. Aug. 9, 2001).

126. See 24 C.F.R. § 35.88 (2001); 40 C.F.R. § 745.107 (2001).

127. 24 C.F.R. § 35.82 (2001); 40 C.F.R. § 745.101 (2001).

128. 24 C.F.R. § 35.86 (2001); 40 C.F.R. § 745.103 (2001). See also In re U.S. Dept. of Navy, TSCA Appeal No. 99-2, Docket No. TSCA VI-736C(L) (March 17, 2000), *available at* www.epa.gov/eab/disk11/kingsville.pdf (holding that Navy

unless a child lives or is expected to live there—are exempted from what is denominated “target housing,” and thus escape the Disclosure Rule requirements.¹²⁹

Finally, it is remarkable that this “national crisis,”¹³⁰ that is “widespread,”¹³¹ “afflicting as many as 3,000,000 children under age 6,”¹³² and which “can be reduced by abating”¹³³ was confronted only with a requirement to disclose. The federal law does not impose abatement on non-federally owned housing. Removal, replacement, encapsulation, covering, essential maintenance practices or ongoing inspections are not incorporated into the regulatory scheme. The owner or landlord is obliged only to disclose.

2. Where Disclosure to Lessees and Buyers Alone Misses the Mark

The rationale of interim controls is to mitigate the harm caused by lead-based paint until additional measures to reduce the threat of exposure to lead are enacted and enforced. To that end, the most affected populations and the places where they usually spend their time are targeted by federal law and corresponding enforcement policies. Buyers and lessees are protected through disclosure, and violations of the Disclosure Rule with regard to pregnant women and children carry increased penalties. If protected in their homes, children might logically be protected by the minimal standard of disclosure elsewhere.

Other similar situations would ostensibly call for the same care and legal concern. Children increasingly find themselves in places outside the home.¹³⁴ Neighborhood kids might routinely gather at another child’s pre-1978 home to play. Youngsters might regularly visit a child-sitter’s home that is considered target housing. Child care facilities constructed before

does not need to disclose because Residency Occupancy Contracts (ROAs) are not contracts to lease and do not create the landlord-tenant relationship envisioned by the Disclosure Rule).

129. See 24 C.F.R. § 35.86 (2001); 40 C.F.R. § 745.103 (2001).

130. 42 U.S.C. § 4851(7) (1994).

131. *Id.* § 4851(1).

132. *Id.*

133. *Id.* § 4851(6).

134. See Mahoney, *supra* note 32, at 55 (citing the homes of relatives as yet another source of lead exposure, recognizing that family members would not necessarily share all relevant information about lead hazards disclosed to them).

1978 might host groups of children daily. In all of these cases, even if the owner or lessee was made aware of lead-based paint and lead-based paint hazards at the time of the purchase or lease, neighborhood kids, youngsters at the sitter's house and preschoolers—and the parents of these children—do not receive notice of the potential dangers hidden in the peeling, flaking or cracking paint, and in the impact, friction and child-accessible surfaces. If the purpose of the congressional legislation is primarily to protect children, then other locations where children spend considerable portions of their lives should at least be included within the scope of disclosure.¹³⁵

The sensible and appropriate intuition behind the federal statutes and regulations is that the states may—and would—enact and enforce additional laws to eradicate the national lead problem as “expeditiously as possible.”¹³⁶ The door was left open for the states to come in with their evenhanded but determined measures to address and then eliminate childhood lead poisoning in the United States, possibly the most preventable childhood disease.¹³⁷ Apparently, some have shut the door.

135. See Lead Exposure Reduction Act of 1994, S. 729, 103rd Cong. § 107 (1994) (amending Title IV of 15 U.S.C. § 2681 and requiring, *inter alia*, day care teachers, other personnel, and parents or guardians of children attending the school to be given risk disclosure information); Children's Health Act of 2000, H.R. 4365, 106th Cong. (2000). This act, presented to the President on October 5, 2000, deleted from the January 24, 2000 version of the bill Title XXV, Early Detection and Treatment Regarding Childhood Lead Poisoning. Section 2502 of that title would have made additional grants available for lead poisoning related activities, another step toward the elimination of the disease. See generally Charles Pope, *Passage of Children's Health Act Buoy Gorton*, SEATTLE-POST INTELL., Sept. 28, 2000, at A9.

136. See 15 U.S.C. § 2684(e) (2000) (acknowledging that in an authorized state lead program, requirements may be “more stringent than those imposed [by the federal model]”); 42 U.S.C. § 4851(8) (1994) (defining federal government's “leadership role” in this process); 40 C.F.R. § 745.119 (2001) (noting that seller, lessor, and agent are not relieved from any obligations to comply with State or local laws).

137. See TASK FORCE, *supra* note 10, at 1; Mahaffey, *supra* note 107, at 1309; Mahoney, *supra* note 32, at 46.

B. Inadequate and Insufficient State Legislation

1. Lead Regulation in Child Care Facilities

A child care facility “means a public place or a residence in which a person furnishes child care.”¹³⁸ It is “a day care facility or family care home.”¹³⁹ It is a “building or portion of a building visited regularly for the purpose of child care by the same child, 6 years of age or under, on at least 2 days within any week. . . .”¹⁴⁰ Child care facilities may also come under the generic term “dwelling,” evidencing a commitment to unify all those places in which a child lives, grows, plays and learns—and where the child may be significantly exposed to lead.¹⁴¹

Congress’ stated goal is, ultimately, to eliminate childhood lead poisoning.¹⁴² A lead-free America is intended to arise from the infrastructure developed from the federal government’s leadership and its national strategy to reduce lead-based paint hazards. States, in turn, are commissioned to realize this vision that has been codified not so much in the legislative text itself, but manifestly in the statutory spirit “as expeditiously as possible.” The limited interim measures grace states with the flexibility to arrange their resources in an appropriate and timely manner, addressing the nuances of each state’s specific situation, and then to legislate accordingly. If the national strategy proposes to eliminate childhood lead poisoning over the next ten years,¹⁴³ limited abatement should take place wherever children are found in substantial numbers and spend sizeable quantities of their time. The child care facility meets this twofold criterion.

138. TEX. HEALTH & SAFETY CODE § 88.001(2) (Vernon 2000).

139. VT. STAT. ANN. tit. 18, § 1751(3) (1998).

140. ME. REV. STAT. ANN. tit. 22, § 1315(1-C) (West 1999).

141. See, e.g., N.J. STAT. ANN. § 24:14A(d) (West 1995); N.J. ADMIN. CODE tit. 8, § 51 (1999).

142. 42 U.S.C. § 4851a (1994). For a brief overview of childhood lead poisoning in the U.S. and descriptions of the various facets of the federal strategy, including the elimination of lead hazards, see U.S. DEP’T OF HEALTH AND HUMAN SERVICES, HHS HELPS IN EFFORTS TO ELIMINATE CHILDHOOD LEAD POISONING, HHS FACT SHEET (Feb. 5, 2001), at <http://www.hhs.gov/news/press/2001pres/01fsleadpoison.html>.

143. See TASK FORCE *supra* note 10, at 2, 4.

2. Primary and Secondary Strategies

Arguably, abatement is the only or most effective means of prevention.¹⁴⁴ Prevention, however, is divided into two approaches or strategies. Each approach is further defined by various methods. Due to the fact that undetected lead hazards may affect children and cause life-long damage well before a lead poisoning prevention strategy kicks in, the most obvious, and some say most costly, approach is to permanently abate such threats prior to their materialization.¹⁴⁵

Primary abatement—or the primary preventive approach—aims to remove lead from a child's environment before any ingestion, inhalation and absorption takes place.¹⁴⁶ Though abatement is definable as “any set of measures designed to permanently eliminate lead-based paint hazards,”¹⁴⁷ this approach might take a variety of forms, from removal or replacement to enclosure or encapsulation.¹⁴⁸ Perhaps abatement is best defined generically as an attempt to permanently and as completely as possible remove the threat of lead-based hazards.¹⁴⁹

Deleading, the form of abatement that purportedly entails complete removal of lead-based paint by means of scraping and sanding (possibly

144. See Mahoney, *supra* note 32, at 53-54. See also Peter A. Briss et al., *Costs and Benefits of a Universal Screening Program for Elevated Blood Lead Levels in 1-Year-Old-Children* [sic] (1997), available at <http://www.cdc.gov/nceh/lead/guide/1997/pdf/b4.pdf>. A team of researchers from the National Center for Environmental Health of the Centers for Disease Control and Prevention and from Harvard University School of Public Health studied the question of universal screening and intervention, and confessed that the benefits of even selective screening may have been overestimated in the study. In its last sentence, their report concluded that primary prevention remains the preferable strategy. *Id.* at 11.

145. See Mahoney, *supra* note 32, at 51. See also Landrigan, *supra* note 34, at 583 (concluding that “[i]t is self-evident, then, that the major effort of pediatricians must be directed toward [primary] prevention”).

146. See Mahoney, *supra* note 32, at 54.

147. VT. STAT. ANN. tit. 18, § 1751(b)(1) (1998).

148. See MICH. COMP. LAWS ANN. § 333.5453 (West 2000) (outlining what is and what is not included within the term “abatement”).

149. See generally ENVIRONMENTAL PROTECTION AGENCY, RESIDENTIAL LEAD HAZARD STANDARDS - TSCA SECTION 403, available at <http://www.epa.gov/lead/leadhaz.htm> (last visited Mar. 11, 2001) (defining what presently constitutes a lead hazard).

followed by burning), might prove extreme and even dangerous.¹⁵⁰ Sometimes deleading is the most appropriate strategy to secure a child's health, but such a radical method must be performed properly¹⁵¹ and by those who are trained and legally certified.¹⁵² Though not perfectly "delead," a residence or child care facility might be rendered essentially lead-free, and thus the congressional goal of eliminating the threat of childhood lead poisoning be successfully achieved.

Encapsulants, with the same purpose intended by traditional covering or enclosing of lead-based paint, whether on the exterior of a house by siding or on the interior by paneling, seek to "encapsulate" deteriorating paint. These encapsulants restrain the threat of existing and the development of additional lead-based paint hazards. A 1995 report on the scientific understanding of this abatement method remarks that "[e]ncapsulants are durable coatings systems designed to cover existing leaded paint, and thereby control the further deterioration of the paint and the resulting distribution of fine lead particles to household dust and exterior soil."¹⁵³ While encapsulants themselves do not permanently remove the threat of lead-based hazards, when coupled with "essential maintenance practices,"¹⁵⁴ this strategy might nonetheless prove a significant step toward the elimination of childhood lead poisoning.¹⁵⁵ Periodic maintenance is recommended in any "comprehensive

150. See Yona Amitai et al., Hazards of 'Deleading' Homes of Children with Lead Poisoning, 141 AM. J. DISEASES OF CHILD. 758, 758 (1987).

151. See *id.* at 759.

152. See, e.g., MINN. STAT. § 144.9505 (1999) (treating the licensing and training of lead contractors and certification of workers); MINN. R. 4761.1180, .1190 (1999) (detailing methods for lead hazard reduction). See also ENVIRONMENTAL PROTECTION AGENCY, TRAINING AND CERTIFICATION PROGRAM FOR LEAD-BASED PAINT ACTIVITIES IN TARGET HOUSING AND CHILD OCCUPIED FACILITIES - SECTION 402/404, available at <http://www.epa.gov/lead/leadcert.htm> (last visited Mar. 11, 2001).

153. ENVIRONMENTAL PROTECTION AGENCY, PILOT TESTING PROGRAM FOR PROTOCOLS FOR LEAD-BASED PAINT ENCAPSULANTS, Doc. No. EPA 747-R-95-011, i (1995).

154. See ME. REV. STAT. ANN. § 1316 (West 1999). See also *infra* pp. 235 [§ 9 statute].

155. See, e.g., VT. STAT. ANN. § 1759 (1998); VT. DEPT. OF HEALTH AND VT. DEPT. OF HOUSING & COMMUNITY AFFAIRS, PREVENTING CHILDHOOD LEAD POISONING IN RENTAL PROPERTIES & CHILD CARE FACILITIES (2000) (on file with author).

abatement" plan, for even absolute abatement or "deleading" does not leave the air one hundred percent free from lead-based dust.¹⁵⁶ Encapsulation, therefore, followed by a periodic maintenance program, might be one more acceptable and serious interim measure.

Secondary prevention, also known as the "medical approach,"¹⁵⁷ focuses on children who already have EBLs, on treating those poisoned children and on removing them from the source of exposure.¹⁵⁸ This strategy to reduce childhood lead poisoning comes after the fact and concentrates on reporting EBLs,¹⁵⁹ screening young children¹⁶⁰ and follow-up services.¹⁶¹ The majority of the methods adopted by the States to bring about the elimination of the preventable disease, lead poisoning, are found under this heading.¹⁶² The obligation to abate, if required at all, is

156. See Mark R. Farfel et al., *The Longer-Term Effectiveness of Residential Lead Paint Abatement*, 66 ENVTL. RES. 217, 220 (1994) (suggesting that "occupants can maintain low dust lead levels with ordinary housecleaning methods once smooth surfaces are provided in the context of this comprehensive abatement").

157. See Mahoney, *supra* note 32, at 54.

158. See, e.g., MINN. STAT. § 144.9501, subd. 28 (1999) (defining secondary prevention as the "intervention to mitigate health effects on people with elevated blood lead levels").

159. See, e.g., TEX. HEALTH & SAFETY CODE § 88.001 (Vernon 2000).

160. See, e.g., COLO. REV. STAT. § 25-5-1104 (1999).

161. See *id.*

162. The following statute exemplifies this secondary point of departure, namely, by beginning with sick children and then endeavoring to remedy the situation through the removal or containment of lead-based hazards.

The state seeks to adopt the concept of "lead-safe" housing units and child-occupied facilities, rather than "lead-free" housing and facilities. The goal of the state should not be the removal of all lead-based paint, but the creation of housing and facilities where no significant lead-based paint hazard is present. This goal includes the removal, enclosure, or encapsulation of lead-based paint to remove lead hazards from target housing and child-occupied facilities.

COLO. REV. STAT. § 25-7-1101(d) (1999) (emphasis added). See TASK FORCE, *supra* note 10, at 31 (encouraging preventive measures, and defining such in terms of secondary ("screening and follow-up") and primary ("identify at-risk families and provide services to them before children are poisoned") prevention). See also Michele Gilligan & Deborah Ann Ford, *Investor Response to Lead-Based Paint Abatement Laws: Legal and Economic Considerations*, 12 COLUM. J. ENVTL. L. 243, 267 (1987) (classifying laws as following a "housing approach" or "health

triggered by sick children. Children have become the canaries in the coal mine.

Of the two, primary prevention, the complete and permanent removal of lead-based paint, logically seems to be the most effective measure to guarantee the exponential decline in the number of children poisoned through exposure to lead-based paint. This so-called "housing approach," in contradistinction to the secondary medical approach, concerns itself with the removal of lead from a child's environment prior to threatening exposure.¹⁶³ Some are convinced that this is "[t]he only way true prevention can be accomplished. . . ."¹⁶⁴ The precautionary position of research critical of improper and untrained deleading activities contends that in some cases removal of lead-based paint might advance exposure, at least temporarily, putting children at increased risk. Despite this position, "[i]t is evident that primary prevention of elevated lead levels in children remains the most important long-term strategy to combat childhood lead poisoning."¹⁶⁵ Although the approach is not free from alleged difficulties, most notably the cost of such absolute abatement, its potential success cannot be overstated, for where there is no lead there is little chance of lead poisoning.

Congress' express intention in its 1992 Act was to eventually "eliminate lead-based paint hazards in all housing. . . ."¹⁶⁶ In 2000, the President's Task Force asserted virtually the same goal, boldly predicting that the elimination of residential lead paint hazards will be accomplished by

approach"). Cf. COLO. REV. STAT. § 25-5-1104 (1999) (defining what a "comprehensive plan" would look like according to the strategy of secondary prevention).

163. See Gilligan, *supra* note 162, at 267; Mahoney, *supra* note 32, at 55.

164. Mahoney, *supra* note 32, at 55.

165. Sharon L. Swindell et al., *Home Abatement and Blood Lead Changes in Children with Class III Lead Poisoning*, 33 CLINICAL PED. 536, 540 (1994). See Amitai, *supra* note 150, at 758-60 (concluding that "deleading remains a necessary, albeit dangerous, public health measure in the management of childhood lead poisoning."); Farfel, *supra* note 156, at 217, 219-20 (calling for "comprehensive abatement" with periodic post-abatement maintenance practices); Mark R. Farfel & J. Julian Chisholm, Jr., *Health and Environmental Outcomes of Traditional and Modified Practices for Abatement of Residential Lead-Based Paint*, 80 AM. J. PUB. HEALTH 1240, 1243-44 (1990) (advocating complete abatement with better containment, clean-up, and disposal methods).

166. 42 U.S.C. § 4851a (1994).

2010.¹⁶⁷ If elimination is the end or vision of the law, especially the elimination of lead-based paint hazards affecting pregnant women and young children, then anything less than permanent abatement is merely an interim measure. Accordingly, limited abatement—both qualitatively and quantitatively—should be the next step taken by state legislatures in their regulatory schemes.¹⁶⁸ Moreover, such limited abatement should be mandated in all of the areas where children under six and pregnant women might be directly and significantly affected by exposure to lead-based paint, including child care facilities.

3. *Benefits and Costs: Health, Education and “Diminished Citizenry”*

Disagreement with the primary prevention strategy of abatement usually coalesces around the issue of cost. Others oppose complete and permanent abatement because of the potential harm occasioned by the disturbance of seemingly perfectly intact lead-based paint on the walls and ceilings of historic buildings. Some investors incorrectly argue that a “specter [sic] of abandonment” would be the expensive result, and therefore condemn the abatement option.¹⁶⁹ Rather, the truth is that most properties that are abandoned because of this reason are themselves marginal properties, which “are poorly maintained, in an area of declining value, and expensive to hold.”¹⁷⁰ In fact, “removing lead paint and replacing it with non-lead paint is [generally] considered a repair and is currently deductible by landlords.”¹⁷¹ Regardless of whether costs

167. See TASK FORCE, *supra* note 10, at 1, 3, 4.

168. Qualitatively, limited abatement would accept other strategies in addition to removal, such as requiring all child-accessible surfaces and fixtures to be delead, but allowing non-accessible surfaces and fixtures to be securely and permanently encapsulated, enclosed or even maintained in good condition. Quantitatively, limited abatement might encompass all interior child-occupied areas and child-accessible surfaces and fixtures but leave the exterior or the less occupied areas—for example, the teachers' room, janitor's closet or attached garage—of a facility outside the scope of abatement. Limited abatement, therefore, while sensitive to specific and sensible arguments against complete deleading in certain cases, retains a realistic commitment to the elimination—not mere postponement—of lead-based paint hazards.

169. See Gilligan, *supra* note 162, at 289.

170. *Id.*

171. TASK FORCE, *supra* note 10, at 33. See also Chan, *supra* note 124, at B1 (discussing “the bill’s proposed tax credit of up to \$3,500 per rental property for

incurred by landlords and owners can be deducted or capitalized, or whether these costs need to be “eaten”—by the property owners, the State, or both—the measurable as well as the unquantifiable long-term costs still probably exceed the present costs of full abatement.

The actual costs of permanent and complete abatement are difficult to determine, the estimations tending to rise or drop according to the political wind.¹⁷² A recent calculation by HUD, whose figures tend to be higher than others,¹⁷³ values the per-unit abatement costs at \$9,000.¹⁷⁴ This figure includes a \$500 inspection and risk assessment fee.¹⁷⁵ The inspection, risk assessment and complete and permanent abatement of all pre-1960 residential dwellings, at the rate of 1.84 million units per year,¹⁷⁶ would require \$16.6 billion annually for ten years.¹⁷⁷ The estimated monetary benefit from the abatement of low-income housing over the same ten-year period, however, is \$37.7 billion based on a 3% discount rate, or \$20.8 billion based on a 7% discount rate.¹⁷⁸ Significantly, the Task Force reports that “[t]he benefit of permanently abating lead paint in *all housing* is considerably greater because more children would benefit over a considerably longer time span.”¹⁷⁹ Though the costs are substantial,

lead-hazard removal,” which would offset the estimated \$2,500 to remedy the most contaminated properties, according to HUD’s Office of Lead Hazard Control).

172. See Gilligan, *supra* note 162, at 255; Mahoney, *supra* note 32, at 56. See also Sandra Fleishman, *Getting the Lead Out; D.C. Abatement Law Crackdown Catches Contractors, Renovators by Surprise*, WASH. POST, Mar. 3, 2001, at H01 (offering an illustration of varying estimates for inspections and abatement work).

173. See Mahoney, *supra* note 32, at 56.

174. See TASK FORCE, *supra* note 10, at 25.

175. See *id.*

176. Calculations are based on the ten-year plan (2001-2010) of the President’s Task Force to eliminate all lead-based paint hazards.

177. See TASK FORCE, *supra* note 10, at 24. This amounts to \$166 billion over the ten-year period, having fully abated 184 million dwelling units.

178. See *id.* at 25. The estimated monetized health benefits are \$22,098 (in millions) at a 3% discount rate and \$5,167 (in millions) at a 7% discount rate. One of these figures is then combined with the estimated abatement market benefits, which total \$15,640 (in millions), yielding a final total of \$37.7 billion at a 3% discount rate or \$20.8 billion at a 7% discount rate. *Id.* at A-27.

179. TASK FORCE, *supra* note 10, at 25 (emphasis added). In 1976, the one-time cost to remove all lead-based paint was estimated to be \$28.4 billion. The annual cost incurred from the care of those poisoned by lead, through ongoing

avoided health and educational expenses and increased market value counterbalance the debit.

The benefits to society are not merely those costs avoided relating to the real and immediate medical and remedial education expenses but are much more diverse and less tangible. The Task Force lists the measurable benefits as "avoided medical care, avoided special education, increased lifetime earnings due to increased cognition, and market benefits. . . ."¹⁸⁰ Intangible benefits include: "avoided hypertension in later life; improvements in children's height, physical stature, hearing, and vitamin D metabolism; and expenses and emotional costs involved in caring for poisoned children."¹⁸¹ A current study commissioned by HUD concludes that new, stricter regulations regarding lead paint removal in federally funded and assisted housing alone "would save as much as \$1.14 billion nationwide by reducing IQ deficits among children and 'improving their ability to find and keep good-paying jobs' as adults."¹⁸² One might only imagine the magnitude of economic savings from preventing future criminals, delinquents and violent aggressors from ever taking shape. Likewise, the costs of a diminished citizenry are immeasurable.¹⁸³ Therefore, since the long-term costs of abatement of the U.S. housing market are less than the interim economic benefits of not abating, this logic and accounting legitimately could be extended to child care facilities. Multitudes of children in both public and private care facilities would be saved from needless poisoning, and the nation would avoid the considerable economic costs of the ongoing treatment of countless thousands of future citizens diminished for life.¹⁸⁴

4. *Exposure Beyond the Homestead*

In 1995, out of approximately twenty-one million infants, toddlers and preschoolers under six in the U.S., more than 12.9 million were regularly

health and education expenses, was estimated in 1978 to be \$4.29 million to 1.04 billion. See Gilligan, *supra* note 162, at 289; Mahoney, *supra* note 32, at 56-57.

180. TASK FORCE, *supra* note 10, at 25.

181. *Id.*

182. *Lead Exposure: Toxin Might Yield Lower IQs, More Crime*, AM. HEALTH LINE, May 10, 2000, at <http://www.americanhealthline.com>.

183. See Mahoney, *supra* note 32, at 56 ("The harm to children and their families, and the costs to society of having the potential of hundred of thousands of its citizens diminished for life, are simply unquantifiable.").

184. See *id.*

in child care.¹⁸⁵ Seventy-eight percent of children aged four and eighty-four percent of children aged five received nonparental care and/or education on a regular basis.¹⁸⁶ Nearly half, approximately forty-five percent, of children under one-year-old were estimated to have regularly received nonparental child care and education.¹⁸⁷ Substantial and increasing numbers of young children, that is children under six years old, spend significant amounts of time weekly—if not daily—in care outside their homes.¹⁸⁸ Even the strictest regulation of lead-based paint in residential housing, therefore, would prove insufficient to eliminate all exposure to such lead-based hazards.

One of the leading reasons of this apparent exodus from the home to the child care facility, though historically not the only one, is the escalation of working families in which both parents of a two-parent family, or one in a single-parent family is at work.¹⁸⁹ In those families with employed mothers, seventy-six percent of preschool children receive regular nonparental care.¹⁹⁰ Moreover, variety among child care arrangements is common.¹⁹¹ Nationwide, roughly sixty-two percent of

185. See *Child Care for Young Children: Demographics*, 17 CHILD CARE BULL. (Sept.-Oct. 1997) (citing a 1995 estimation of children in child care by the National Center for Education Statistics), at <http://nccic.org/ccb/cb-so97/demograp.html>. In the U.S. there are presently 106,041 licensed child care centers and 286,568 licensed family child care homes, totaling 392,609 licensed child care facilities. NAT'L CHILD CARE INFO. CENTER, NCCIC INFO. MANAGEMENT SYS. DATABASE [hereinafter NCCIC DATABASE], ... at <http://nautilus.outreach.uiuc.edu/eric/search.asp> (last visited June 26, 2001).

186. NAT'L CENTER FOR EDUC. STATISTICS, STATISTICS IN BRIEF: CHILD CARE AND EARLY EDUCATION PROGRAM PARTICIPATION OF INFANTS, TODDLERS, AND PRESCHOOLERS, Doc. No. NCES 95-824 (Oct. 1996) [hereinafter STATISTICS IN BRIEF], available at <http://nces.ed.gov/pubs/95824.html>.

187. *Id.*

188. For a brief review of the studies that show an increased need for child care, see YEARBOOK 2001, *supra* note 2, at 46-47.

189. See Hernandez, *supra* note 19. "From 1940 to 1989, the percentage of children under six who needed alternative child care arrangements rose from 8% to 51%." *Id.* at 3.

190. Jeffery Capizzano et al., *Child Care Arrangements for Children Under Five: Variation Across States*, B-7 URBAN INST. (Mar. 2000), at http://newfederalism.urban.org/html/series_b/b7.html.

191. See Press Release, U.S. Dep't of Commerce News, *Census Bureau Says 7 Million Grade-School Children Home Alone*, Oct. 31, 2000 ("In 1995, 44 percent of preschoolers regularly spent time in more than one type of arrangement per

children under five whose mothers work receive nonparental care outside the home.¹⁹² Greater numbers of infants, toddlers, and preschoolers are receiving care and education outside their own residences as fewer non-working parents are available for care within the home.

Further, while the general belief is that the poor and racial and ethnic minority groups within their housing units are most at risk for elevated blood lead levels,¹⁹³ paradoxically the opposite may be true with regard to child care facilities.¹⁹⁴ The percentage of children who receive nonparental care and education rises with the concomitant increase in household income and the mother's education.¹⁹⁵ If the child's mother works, the youngster is more likely to receive out-of-the-home care.¹⁹⁶ Therefore, children from all social, racial, ethnic and economic groupings may be exposed to lead in unregulated or under-regulated child care facilities.¹⁹⁷

Tomorrow's parents, citizens and workers, who are presently the nation's children, depend on the adults of today to make rules and regulations to protect and secure their physical, political and economic

week.”), at <http://www.census.gov/Press-Release/www/2000/cb00-181.html>.

192. Capizzano, *supra* note 189, at Table 1.

193. See 42 U.S.C. § 4851(1)(1994); *Update, supra* note 63, at 141 (concluding that NHANES III shows that “[blood lead levels] among children aged 1-5 years were more likely to be elevated among those who were poor, non-Hispanic black, living in large metropolitan areas, or living in older housing”).

194. For a list of twenty-five general facts about American children regarding working mothers, parental status, poverty and the like, see CHILD. DEF. FUND, THE STATE OF AMERICA'S CHILDREN—YEARBOOK 2000 (2000), at <http://www.childrensdefensefund.org/keyfacts.htm> (illustrating that a significant number of young children are cared for outside their homes due in part to a working parent(s)). See also YEARBOOK 2000, *supra* note 1.

195. See STATISTICS IN BRIEF, *supra* note 186, at 4.

196. See *id.* (revealing that almost eighty-eight percent of the children of full-time working mothers and seventy-five percent of the children of part-time workers receive nonparental care and education on a regular basis).

197. Demographic trends illustrate a growth and diversification of working mothers, “suggest[ing] that, in the coming decades, early childhood programs will be serving a population of children which is increasingly diverse in economic resources, racial and ethnic background, and family structure.” Hernandez, *supra* note 19. Moreover, policymakers are currently considering how to best incorporate “child care as a work support mechanism” in the quest for federal welfare reform. Capizzano, *supra* note 190.

well-being.¹⁹⁸ Parents and guardians have not been very successful representing and addressing the needs of children, for “children have been disadvantaged to the benefit of other groups that have a political voice.”¹⁹⁹ If law and policymakers, *in loco parentis*, are committed to protecting children from harmful lead exposure in their homes, then the health of society’s future workers, citizens and adults in like fashion should be safeguarded in the expanding number of child care facilities across the country.

VI. A STATUTORY PROPOSAL

A. An Evaluation of Exemplary Regulation

The State of Maine’s statutory law has responded to the growing number of children in the State who receive care outside their homes with a systematic vision to bring about an end to childhood lead poisoning within its borders. Presently, Maine hosts approximately 904 licensed child care centers and 2,400 licensed family child care homes, which total 3,304 facilities.²⁰⁰ Although the State has taken the less severe path of mandating “lead-safe” rather than lead-free properties, the statutory scheme admirably includes residential child-care and preschool facilities within its restrictions.²⁰¹

Conceding the importance of identifying those children who nevertheless might be poisoned by lead under these partial (albeit strict) controls, Maine’s Lead Poisoning Control Act requires a systematic lead poisoning examination of all children, resources permitting,²⁰² and the screening of children in any health care program funded in whole or part by the State.²⁰³ A comprehensive educational program is established to publicize health issues surrounding lead and methods of abating lead-based hazards.²⁰⁴

198. See Hernandez, *supra* note 19.

199. Regina G. Thornton, *Children in Poverty and Their Access to Health Care*, 3 QUINNIPIAC HEALTH L.J. 111, 115 (1999-2000).

200. NCCIC DATABASE, *supra* note 185.

201. See Lead Poisoning Control Act, 22 ME. REV. STAT. ANN. tit. 22, § 1316 (West 1999).

202. See *id.* § 1317-A.

203. See *id.* § 1317-C.

204. See *id.* § 1317-B.

Maine's Department of Human Services is empowered to inspect any residential dwelling or child-occupied facility when there are reasonable grounds to suspect the existence of exposed lead-based substances.²⁰⁵ No formal inspection is required, but if the Department finds any lead-based hazards, a public notice of such must be posted and an order of removal be given to the owner.²⁰⁶ The owner has the option, within thirty days, to remove, replace or securely and permanently cover the hazard.²⁰⁷ Moreover, the owner cannot escape responsibility by selling the property, for any prospective buyer must be notified of the environmental lead hazard.²⁰⁸ Again, these measures purport to guarantee a lead-safe environment, not one which is lead-free.

Lastly, a landlord may choose to perform "essential maintenance practices" on a residential dwelling or preschool facility that is rented, but is not obliged to do so.²⁰⁹ The owner's choice, however, to avoid additional post-abatement maintenance is curious and troublesome in light of current research.²¹⁰

B. Proposed Model Statute: Lead-Free Child Care Facilities Act²¹¹

§ 1. Legislative findings and declarations.

(1) Childhood lead poisoning is a significant environmental health threat to young children that is preventable. For the prevention of further exposure to the State's future citizens, the State adopts a strategy of primary prevention, seeking to make all child care facilities free from lead-

205. *See id.* § 1320.

206. *See id.* § 1321.

207. *See id.*

208. *See id.*

209. *See id.* § 1327.

210. *See sources cited supra* note 165.

211. This proposed statute borrows from the legislative wisdom found in the following state statutes: CAL. EDUC. CODE § 32243 (Deering Supp. 2000); CAL. HEALTH & SAFETY CODE § 124125 (Deering 1997); COLO. REV. STAT. §§ 25-5-1101 to -1104 (1999); COLO. REV. STAT. §§ 27-7-1101 to -1102 (1999); ME. REV. STAT. ANN. tit. 22, §§ 1315-1321 (West Supp. 1999); MICH. COMP. LAWS ANN. § 333.5458-.5460 (West Supp. 2000); N.J. STAT. ANN. § 24:14A-9 (West 1995); TEX. REV. CIV. STAT. ANN. art. 9029 (Vernon Supp. 2000); TEX. HEALTH & SAFETY CODE § 88.001 (Vernon 2000); VT. STAT. ANN. tit. 18, §§ 1751, 1757, 1759, 1761 (1998).

based paint hazards, subject to §§ of this code [re: lead in coatings on food and drinking utensils, on toys and household items, and in paint].

(2) The State's preventive strategy will accomplish all of the following:

- (a) Promote public education of health issues pertaining to lead, including the sources of lead poisoning and practices to avoid lead poisoning; and the availability of screening to detect lead poisoning early;
- (b) Mandate a limited screening program;
- (c) Inspect all licensed child care facilities;
- (d) Achieve limited abatement in all child care facilities.

§ 2. Definitions.

(1) "Abatement", except as otherwise provided in subsection (8), means a measure or set of measures designed to permanently eliminate lead-based paint hazards. Abatement includes the removal of lead-based paint and lead-contaminated dust, the replacement of lead-painted surfaces or fixtures, the permanent encapsulation or enclosure of lead-painted surfaces,

the removal or covering of lead-contaminated soil, and all subsequent post-abatement cleaning, disposal, and follow-up maintenance.

(2) "Child care facility" means a public place or residence, licensed or not licensed, in which a person furnishes child care, including educational instruction, and that:

- (a) Was constructed prior to 1978;
- (b) Is visited regularly by the same child who is under seven years of age;
- (c) Is visited by such child a total of at least twelve hours per week;
- (d) Is visited by such child a total of at least sixty hours per year.

(3) "Lead-based paint" means any paint containing more than six one-hundredths (.06) of one percent by wet weight of lead metal, more than five-tenths (0.5) of one percent by dry weight of lead metal, or more than one milligram per

square centimeter (1 $\mu\text{g}/\text{cm}^2$) of lead metal.

(4) "Lead-based paint hazard" means any condition that causes exposure to lead from lead-contaminated dust, lead-contaminated soil, lead-contaminated paint that has deteriorated or is present in accessible surfaces, friction surfaces, or impact surfaces that would result in adverse human health effects as defined by using current information from the U.S. Environmental Protection Agency or the U.S. Department of Housing and Urban Development.

(5) "Lead contractor" means any person engaged in deleading or lead hazard reduction as a business and includes consultants and inspectors who design, perform, oversee or evaluate lead hazard reduction projects, subject to the provisions of §§ of this code [re: training, licensing, and certification of lead contractors].

(6) "Lead-free" means that a child care facility contains no lead that is injurious or that could be injurious in the future.

(7) "Lead-safe" means that a child care facility does not contain lead at a level or in a condition that constitutes a lead-based paint hazard.

(8) "Limited abatement" means the following:

(a) The removal of any lead-based paint on any surface or fixture, or replacement of any surface or fixture containing lead-based paint, which is accessible to a child under seven years old;

(b) The removal or replacement, repair, and repainting of any surface or fixture which poses a present or imminent lead-based paint hazard;

(c) The permanent encapsulation or enclosure of all surfaces and fixtures containing lead-based paint not accessible by children under seven years old, rendering such lead-safe in accordance with the Department of Public Health and the Department of Environmental Protection;

(d) The removal or permanent covering of lead-contaminated soil accessible to a child under seven years old on the premises of a child care facility.

(9) "Operator" means the resident owner, principal, or director of the child care facility.

§ 3. Public education program.

The Department of Public Health shall develop and implement a comprehensive public education program that provides education materials pertaining to lead poisoning and lead poisoning prevention to parents of young children, child care providers, health care providers, visiting nurses, social workers, schools, lead contractors, subcontractors, housing inspectors, professional property managers, realtors, owners and tenants of residential dwellings built prior to 1978, and others who might benefit from such materials.

§ 4. Screening and reporting program.

(1) All child care facilities partially or fully funded by the State must offer screening for lead poisoning in accordance with rules adopted by the Department of Public Health.

(2) All child care facilities and health care providers must advise parents of young children of the availability and advisability of screening their children for lead poisoning.

§ 5. Inspection of child care facilities.

(1) Licensed child care centers shall be inspected as part of their licensing requirements, and shall be inspected thereafter at each renewal of their license or when there are reasonable grounds to suspect that there are lead-based paint hazards, subject to the provisions of §§ [re: licensing requirements].²¹²

(2) Child care facilities which do not require a license shall be inspected when there are reasonable grounds to suspect that there are lead-based paint hazards.

§ 6. Abatement funding.

(1) Grants shall be made available through the Department of Public Health for initial abatement activities in all child care facilities and for additional abatement activities during a facility's operation.

(2) Funds for grants shall come from the following:

(a) Fees collected for training, licensing, and

212. Presumably the licensing requirements themselves would mandate abatement prior to a child care facility's operation or at the renewal of its license if the facility had been operating before the enactment of the current licensing requirements. The required abatement would be defined therein accordingly.

certification programs;

- (b) Fees collected for licensing child care facilities;
- (c) Matching federal funds through HUD programs;
- (d) Federal funds from HUD grants.

§ 7. Notice of lead-based hazard.

(1) Upon the finding of a lead-based hazard in a child care facility, a notice shall be conspicuously posted on the premises to inform the public of the hazard.

(2) The Department of Public Health shall notify the operator of the child care facility, and order the operator to notify within 30 days the teachers or care-givers, other personnel, and the parents of the children.

§ 8. Issuance of abatement order.

(1) Upon the finding of a lead-based hazard in a child care facility, the Department of Public Health shall order the abatement or limited abatement of the child care facility to be completed within 30 days. All abatement must be performed by a lead contractor in accordance with §§ of this code [re: training,

licensing, and certification of lead contractors].

(2) If the owner sells or attempts to sell the property before the ordered abatement has been completed, the owner shall notify the prospective buyer of the lead-based paint hazard and the subsequent abatement order; and the new owner must assume the responsibility of completing the ordered abatement.

(3) For good cause, the Department of Public Health may grant a reasonable extension to the 30-day abatement order.

§ 9. Essential maintenance practices.

(1) Following abatement, the owner shall perform the following essential maintenance practices to the abated child care facility:

- (a) Specialized cleaning in accordance with the methods and procedures approved by the Department of Public Health or the Department of Environmental Protection;
- (b) Visual on-site inspections of all interior and exterior surfaces and fixtures to identify

- deteriorated paint;
- (c) Clean all window wells and window sills;
 - (d) Promptly and safely remove or replace, and repaint, areas of deteriorating paint on the interior; and on the exterior if more than one square foot;
 - (e) Prohibit access to areas where lead-based paint is deteriorated until such has been abated;
 - (f) Provide written lead-based paint hazard information to prospective owners of the child care facility;
 - (g) Prominently post a notice, which includes the owner's name, address, and telephone number, requesting that any observation of deteriorated paint be reported;
 - (h) Attend a training program on post-abatement maintenance practices offered or approved by the Department of Public Health;
 - (i) Ensure that all essential maintenance work is done by someone who has completed a Department-approved training program or is being closely supervised by someone who has;
 - (j) At the change of operator, all horizontal surfaces shall be cleaned, excluding ceilings, in accordance with methods and procedures approved by the Department of Public Health or the Department of Environmental Protection;
 - (k) Once completed, the owner shall sign an affidavit declaring that, to the best of the owner's knowledge and belief, the essential maintenance practices were performed, the dates they were completed, and by whom they were performed.
- (2) Annually, the owner shall complete a visual inspection, perform required essential maintenance practices, and file an affidavit in accordance to subsection (1)(k).

§ 10. Failure to obey order to abate.

If the owner so notified shall not comply with the notice or order to abate of the Department of Public Health having primary jurisdiction hereunder within the time specified, the Department shall proceed to abate the child care facility accordingly, bill the owner therefor, and, if

necessary, to recover the expense in a civil action against the owner. The unpaid expense of the Department shall become a lien on the real property immediately upon the completion of abatement.

§ 11. Duty of reasonable care; negligence; liability.

(1) Owners of child care facilities shall take reasonable care to prevent exposure to, and the creation of, lead-based paint hazards. In an action brought under this section, evidence of actions taken or not taken to satisfy the requirements of this chapter, including abating all existing and potential lead-based hazards in accord with §§ 2-8, herein, and performing essential maintenance practices, may be admissible evidence of reasonable care or negligence.

(2) Any person who suffers an injury proximately caused by an owner's breach of this duty of reasonable care shall have a cause of action for appropriate equitable relief.

CONCLUSION

Mere disclosure of lead-based paint in a residence built before 1978 by the provision of lead information materials to a potential buyer or lessee is insufficient to secure human health and to bring about the elimination of childhood lead poisoning. State regulation of lead-based hazards, while laudably taking giant steps in the right direction, also falls short of the national goal. Current federal and state regulatory schemes fail to make the radical commitment necessary to ending this preventable disease by introducing primary prevention abatement strategies. Even counting the cost, limited abatement would likely effect unprecedented long-term physical health among the nation's children and economic health among its future citizens. Such abatement of residential dwellings alone, however, is inadequate because so many U.S. children visit child care facilities regularly. Since children who spend hours daily or weekly at a child care facility might be exposed to lead-based hazards and be poisoned, a statute designed to safeguard children's health should include regulation of those child care facilities. Otherwise the congressional intent to expeditiously eradicate childhood lead poisoning would be deemed hollow lip service, and the law would increasingly and limitlessly turn to private negligence suits to make whole those children poisoned

from exposure to lead.²¹³

213. New scientific studies and broader standing rules have lead environmental attorneys to expect more courts to allow suits against polluters to go forward. See Margaret Graham Tebo, *Fertile Waters*, ABA JOURNAL, Feb. 2001, at 37-38. Moreover, state tort law “may be used to pursue suits for pollution caused by lead. . . .” *Id.* at 38. The threat of litigation for harm caused by lead-based paint comes too late to deter paint and coatings manufacturers from making their harmful product, for that has already been accomplished through legislation. The threat of successful legal action, however, might result in deep-pocket manufacturers working with property owners and local governments to take preventative abatement or containment measures. See also *N.A.A.C.P. Threatens to Sue Over Paint*, N.Y. TIMES, July 11, 2001, at A10 (“An industry representative replied that paint companies wanted to work with the [N.A.A.C.P.], but that a lawsuit would have a ‘chilling effect on cooperative solutions.’”). For an example of a potential Big Tobacco-style lawsuit with regard to lead-based paint, see *Sheldon Whitehouse, Att’y Gen. v. Lead Indus. Ass’n*, No. 99-5226, 2001 WL 345830 (R.I. Super. Apr. 2, 2001).