

LEAD RESEARCH

Statement of Lynn Pinder to the Maryland Commission on Environmental Justice and Sustainable Communities

In the City of Baltimore, the number of youth drifting in and out of America's juvenile court system is on the rise. Moreover, reports from the Maryland Department of Education within the last five years demonstrate that achievement levels for youth in Baltimore City Public Schools are alarmingly low. It is also a fact that the City of Baltimore, in comparison with other cities across the nation, continues to have one of the highest rates of childhood lead poisoning.

When one begins to understand both the physiological and psychological impacts of lead poisoning. There is no denying the links between lead poisoning children and increased rates in juvenile crime and decreased academic scores. A number of legitimate health studies link lead poisoning to increased aggressive behavior and learning disabilities in youth. Even after taking into account other predictors of delinquency, such as maternal intelligence, socioeconomic status and child-rearing factors, including the number of children in the family and the presence of two parents in the home, children with higher lead levels were more likely to engage in juvenile crime.

Children exposed to lead have significantly greater odds of developing delinquent behavior, according to a University of Pittsburgh researcher, Herbert Needleman, MD. Results of his study were presented at the May 2000 Pediatric Academic Societies and American Academy of Pediatrics Joint Meeting. The study examined 216 youths convicted in the Juvenile Court of Allegheny County, Pa., and 201 non-delinquent controls - students from high schools in Pittsburgh. Bone lead levels demonstrated that the delinquent youths had significantly higher mean concentrations of lead in their bones. These test results were true for both European Americans, African Americans, males, and females -- all included as participants in the study.

While this study is the first to show that lead exposure is higher in arrested delinquents, it is part of a growing body of evidence linking lead to cognitive and behavioral problems in children. In 1996, Dr. Needleman published a study of 300 boys in Pittsburgh public schools and found that those with relatively high levels of lead in their bones were more likely to engage in anti-social activities like bullying, vandalism, truancy and shoplifting. In 1979, Dr. Needleman, using measurements of lead in children's teeth, concluded that children with high lead levels in their teeth, but no outward signs of lead poisoning, had lower IQ scores, poorer attention and poorer language skills. This study and others like the ones completed by Dr. Needleman prove the possibility that some of the violence in our society could be the result of preventable environmental pollution by lead. In some findings, for every increase of 1 microgram, there was an estimated reduction in reading scores of 1 point and a slightly smaller drop in math scores. It is important to note that the findings of these studies suggest that harmful effects of lead poisoning are seen at the lowest detectable blood levels, those under 10 micrograms.

In Baltimore, Kennedy Krieger Institute and various other medical institutions have been studying the issue of lead poisoning for over thirty years. Kennedy Krieger Institute and the Johns Hopkins School of Public Health recently came under fire by a coalition of community groups, including YOUTH WARRIORS, the Northeast Environmental Justice Network, and the

People's Plan regarding the Lead Abatement Repair and Maintenance Study (R & M Study) initiated in the early 1990s.

The community groups feel strongly that Kennedy Krieger Institute had good intentions when initiating the R & M Study. However, the study used bad science because it allowed Kennedy Krieger Institute to make a judgment call to subject poor black children to a known risk in their community. There was no benefit to the children who participated in the study. The real benefit was to the property owners who from the findings of the study can now determine how little they need to invest in lead reduction in order to save money. When researchers already know that the way to protect children from lead poisoning is to remove lead from the environment. We must begin advocating for more money to construct new lead safe homes for families living in lead infested communities.

Kennedy Krieger Institute's rationale for their R & M Study is that they chose families so bad off that could essentially do anything to them because anything they did would be better than the situation the families were already in. This line of thinking is skewed. It is unjust because the targeted population is left without a choice. It was not a decision between good or bad, but the lesser of two evils. In science, this is called the Hobson's Choice. This line of thinking in itself is evidence that Kennedy Krieger Institute used a study that put at risk families that were already disproportionately impacted by the problem of lead poisoning. Although the Kennedy Krieger Institute's R & M research design followed federal guidelines, it still unjustly targeted a vulnerable population - Black mothers with children in poor neighborhoods. The fact that some children, even a small few, still had increased blood lead levels demonstrate that the federal guidelines are not doing enough to protect children against lead poisoning.

Legislative Recommendations:

- 1. Legislators need to protect our children by requiring more money for construction of lead safe housing in low-income communities.**
"This study provides further evidence that delinquent behavior can be caused, in part, by childhood exposure to lead," said Dr. Needleman. "Of all the causes of juvenile delinquency, lead exposure is perhaps the most preventable. This effort could save the state millions of dollars because it decreases the expected number of individuals to enter the criminal justice system"
- 2. Legislators need to review research findings on maximum thresholds.** The recommended limit of 10-micrograms is inadequate to protect children and a maximum threshold of at least half the current 10-microgram limit should be proposed.
- 3. Legislators need to introduce and support more anti-lead poisoning bills.** Seven years ago, Representative Ben Cardin (D-Md.) introduced legislation to provide a dedicated source of funds for abating lead-based paint hazards in housing and daycare centers. This legislation would have imposed an excise fee on lead (\$0.45 per pound) as it is introduced in commerce (via primary and secondary smelters, and via the import of lead and lead-containing products). By increasing the price of lead, the fee would provide strong incentives for substitution and recycling. Safeguards in the trust fund legislation ensured that benefits accrue to low-income families, federal funds are directed to the most

workers and occupants are fully protected. The bill was expected to generate thousands of jobs paying decent wages in areas with the highest unemployment levels. Unfortunately, the legislation failed to gain passage in 1994. The legislation embodies critical concepts for lead poisoning prevention and some variation of this legislation should be included for future congressional consideration.

Sources: **“Lead Tied to Juvenile Delinquency Study: Millions more children may suffer from exposure”** ASSOCIATED PRESS
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