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Wornie L. Reed
University of Massachusetts Boston

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Commentary

The Lead Poisoning Epidemic

by

Wornie L. Reed

It is more dangerous than some forms of cancer—yet it is virtually ignored by the American public.

It has seriously afflicted a much higher segment of the population than some diseases that were called "epidemics"—yet it has received little public attention.

What we have here is a public failure, a failure to recognize that this disease—lead poisoning—is a serious threat to our health. It has already permanently damaged tens of thousands of babies, children and adults in this nation. And the list of victims is still growing.¹

Lead, present in paint, dust and soil, is possibly our most important toxic waste problem in terms of the seriousness and the extent of human health effects. More is known about lead than almost any other toxic substance. Millions of dollars have been spent to clean up hazardous waste sites involving toxic substances whose health effects are still controversial; yet lead, a toxic substance with confirmed and permanent health effects on extremely large numbers of children, has not been targeted for aggressive cleanup action. The question is whether allowing chronic and preventable poisoning of children will continue to be an acceptable health and environmental policy.

Lead poisoning is a serious but preventable childhood disease. It is caused by exposure to lead found primarily in paint, soil and household dust. Children come in contact with these sources of lead during normal indoor and outdoor play. A child can be poisoned from a very high dose of lead or from small amounts of lead ingested over time. Lead can cause damage to the brain, nervous system and kidneys; it can also affect the building of red blood cells. Even low levels of lead can result in physical coordination, learning or behavior problems.

Most children who are lead poisoned show no signs of being sick. But even though they seem well, lead can still be harming them. Lead is especially dangerous to children under six years of age, because this is an important time in their growth and development.

Since some principal sources of lead in the environment are flaking paint from old houses, auto emissions and industrial sources, old inner city areas are the primary places for lead poisoning. It is not surprising then that blacks have excess amounts of lead poisoning, as they are the primary inner city dwellers. Data from the late 1970s show that black children are more than six times as likely as white children (12.2% to 2%) to have elevated levels of lead in their blood. In Boston children nine months to six years old living in 28 discrete areas in predominantly black neighborhoods have nearly 30% of Boston's childhood lead poisoning; yet they constitute only 4.4% of the children in this age group. About one out of every four children in each of these areas has been poisoned.²

Since lead is clearly an important toxic waste, the Health Department of the City of Boston appealed to the Environmental Protection Agency (EPA) for funds to remove lead-contaminated soil in the highest risk areas of Boston. The Health Department also solicited Senator Edward Kennedy's assistance. He responded by sponsoring legislation to provide an additional $45 million (in the reauthorization of the EPA Superfund Program) to initiate lead-contaminated soil removal in up to three major cities. Three cities—Boston, Baltimore and Cincinnati—requested funds for lead cleanup efforts; however, the EPA and the Reagan administration persuaded Congress to limit the appropriation to a total of $15 million for pilot programs in these three cities.

Since the EPA Superfund only addresses exterior pollution problems, the pilot programs are directed at soil removal from sites with high concentrations of lead. The federal government is requiring that the pilot programs prove that the removal of the soil makes a difference. This requirement appears to be reasonable until it is examined in the context of the EPA's other Superfund work. In other EPA Superfund projects, there is no such requirement to dem-
Lead poisoning in humans has been identified as a cause of high blood pressure, heart disease, birth defects, complications in pregnancies and developmental problems in infants. It is a health problem of epidemic dimensions in the black community. This serious health problem is yet another example of the production of "illth" in the modern society. As the means of production create wealth for some sectors of society, they also create illth. As Lamont C. Cole wrote in 1970:  

"At the present time refuse produced in this country is estimated to be increasing about four percent per year; . . . about the same as the yearly increase in the Gross National Product.

It is apparent that lead in the environment can be considered as undesirable refuse. Just as the health and wealth of society accrue to some groups more than others, so does the illth. The black community—as usual—gets a disproportionate share of the latter. And undoubtedly, the fact that this health hazard is centered in the black community is the reason more is not done to eliminate and prevent it. Society shows little concern for those who are the most likely victims of lead poisoning—small black children from poor and minority families living in old housing in dilapidated inner city areas. In affluent and middle-class suburbs only 3% of white children have dangerous levels of lead in their blood, compared to 30% of inner city black children.

**Background**

As a result of industrialization, lead is ubiquitous in the human environment. Having no known physiologic value, lead can only produce harm. Children are particularly susceptible to its toxic effect. Excessive absorption of lead is one of the more prevalent and preventable childhood health problems in the United States today.

Since 1970 medical opinion regarding lead tolerance has changed substantially. Before the mid-1960s a level below 60 micrograms of lead per deciliter (ug/dl) of whole blood was not considered dangerous enough to require intervention. By 1975, as a result of more experience with this phenomenon, the level at which intervention is suggested declined 50%—to 30 ug/dl. In that year the Center (now Centers) for Disease Control (CDC) published the study, *Increased Lead Absorption and Lead Poisoning in Young Children: A Statement by the Center for Disease Control*. Since then new evidence has indicated that lead is toxic at levels previously thought to be nontoxic. Now the elevated blood level at which intervention is recommended is 25 ug/dl or greater.