Childhood Lead Poisoning

Lead is a poisonous metal that can be swallowed or inhaled. A high amount of lead in the blood, known as "lead poisoning," may damage the blood, bones, and organs resulting in permanent harmful effects to the body.

What is childhood lead poisoning?

Lead is a toxic metal that can be swallowed or inhaled resulting in permanent harmful effects, particularly to the health of children. Commonly known as "lead poisoning," an elevated blood lead level (EBL) is considered to be greater than or equal to 10 micrograms per deciliter (ug / dL). An EBL of 20 ug / dL or higher requires the care of a physician and possibly some medical intervention. As well, at 20 ug / dL, environmental investigation is conducted to determine the source of lead poisoning. [15]

Why is childhood lead poisoning a health concern for Detroiters?

Known effects of lead in the human system include: anemia, developmental delays, learning and behavioral problems, major organ failure, reproductive problems, and osteoporosis. The effects of a high blood lead level can cause seizures, the onset of coma or even death. A child's developing system from birth through age six is most vulnerable to the effects of lead, as it absorbs more lead when exposed and the health consequences are likely to be more detrimental and long lasting. Pregnant women should also be tested in order to prevent or reduce fetal lead exposure.

The environment in which an individual spends the most time is likely to be the source of exposure. Anyone who lives in old housing is susceptible to lead exposure from the paint, building materials, plumbing, or soil of their environment.[16] According to the Michigan Childhood Lead Poisoning Prevention Project (MCLPPP), 63% of all of the housing units in Detroit were built before 1950.[17] Paint used in housing had the highest lead content before 1950, when the amount of lead used was reduced. In 1970, federal legislation prohibited any use of lead paint in federally financed and public housing. Still, the production and sale of lead-based paint was not banned nationwide for consumer use until 1978.[17, 18] Therefore, even if a home was built *after* 1950, there is probably some lead-based paint in it. Landlords and apartment management are required to abate sources of potential lead exposure and to disclose hazard information to tenants.

Lead Poisoned Children in Detroit

The *HP2010* objective for lead poisoning is zero percent. Through the decade of the 1990s the United States achieved significant reduction in the number of lead poisoned children and the severity of their blood lead levels. Yet, according to the American Academy of Pediatrics, poor Black children and urban children are most exposed to lead.[19]

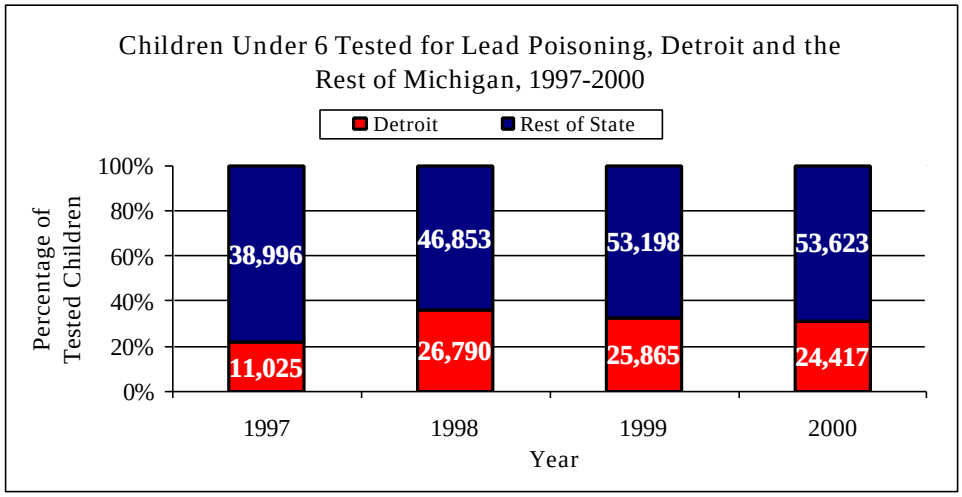

Figure 8

Having a large proportion of pre-1950 housing, over 40% of the residents under age 6 living in poverty, and a majority population of color means that Detroit is at high-risk for childhood lead poisoning. Therefore, a universal testing policy that *all* Detroit children under age six be tested for lead poisoning is recommended by agencies such as the Centers for Disease Control and Prevention and the Environmental Protection Agency. In addition, the American Academy of Pediatrics recommends that a blood lead screening be a part of routine health supervision at 9-12 months of age, and again at 24 months.[20] Of 77,804 Detroit children aged 1 through 5, sixty nine percent (69.3%) have had at least one test for blood lead in their lifetime.[‡‡, 20]

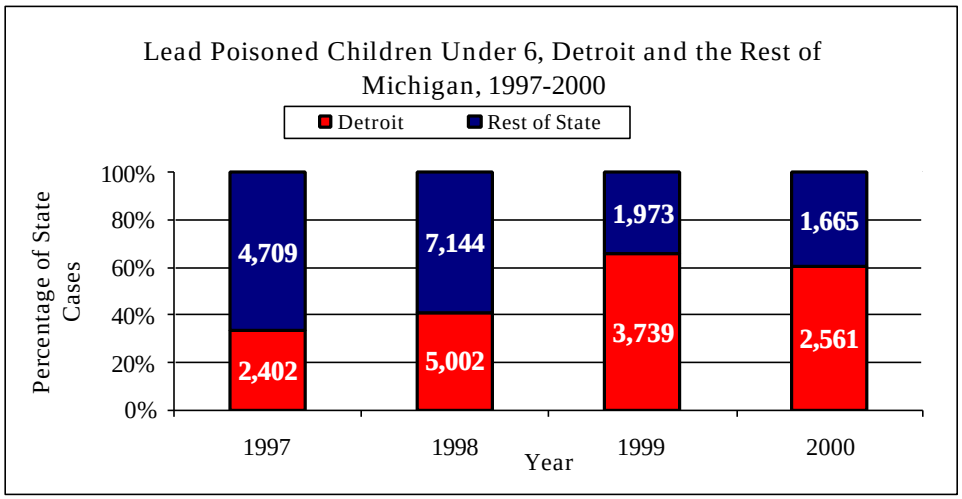

Figure 9

In the year 2000, 24,417 of 93,365 (26.1%) Detroit children under age 6 were tested (see Figure 8). Detroit children accounted for 31.4 % of all Michigan children tested in 2000, but were 60.6% of those whose tests were confirmed positive for lead poisoning (see Figure 9). Though most of the children under 6 years of age in the city were not tested in 2000, *two-thirds* of the Michigan cases of childhood lead poisoning are residents of Detroit.

‡‡ This is data for children tested as of December, 2001. Children aged 1-5 are those born between January 1, 1996 to December 31, 2000.