



# Society for Research in Child Development

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## **PRESS RELEASE**

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### **Poor, Ethnic Children at Greater Risk for Exposure to Toxic Pollutants**

Poor and ethnic minority children in the United States have a significantly greater risk for exposure to toxic pollutants that can affect their cognitive development and other health indicators than higher income and non-minority peers, and current local, state and federal policies appear to be failing to address these inequities. That's the finding laid out in a review of social injustice and environmental pollutants and their effects on children published in the March/April issue of *Child Development*.

Researchers from the University of Wisconsin, Madison note that while all children are at risk for the deleterious effects of environmental toxin exposure, those living in poverty, particularly African-American children and children of migrant farm workers, have a significantly higher risk.

For instance, while lead exposure in the U.S. continues to fall, African-American children living in poverty still have many times the risk of high lead exposure compared to white children. That can have a significant effect on their cognitive ability and school performance since childhood lead exposure is associated with lower IQ scores and higher restlessness, inattention and aggression. Specifically, while 9.3 percent of children in the overall population who are exposed to lead score below 80 IQ points, that figure jumps to 14.2 percent in African-American children. Further, national survey data indicate that higher blood lead levels among African-American children may account for an average difference of 4.2 IQ test points compared to white children.

"Lead exposure gives these children an unfair start in life in addition to placing additional burdens on schools serving disadvantaged populations," notes lead author Janean E. Dilworth-Bart, Ph.D., assistant professor of human development and family studies. However, she adds, strict enforcement of lead abatement policies reduces future lead poisonings.

Yet enforcement varies widely by state, particularly for children from families that don't receive federal housing subsidies, she and her co-author, Colleen F. Moore, Ph.D., a professor of psychology, explain. Compliance with federal rules for blood lead screening of Medicaid-eligible toddlers also varies widely by state. Existing efforts to get tenants to control lead exposure by frequently cleaning and washing their children's hands are only "marginally effective" at reducing lead poisoning in homes with lead hazards, they note.

Additionally, the researchers write, children of migrant farm workers who live near conventional agricultural areas have many times the exposure to pesticides of other children, exposure that sometimes exceeds federal pesticide safety guidelines.

"Many pesticides have the potential to disrupt brain development because they are neurotoxins," explains Dr. Dilworth-Bart. "The federal 'Worker Protection Standards (WPS)' are intended to reduce the exposure of farm workers to pesticides while at work and, indirectly, reduce the pesticides they track home to their children. However, research shows poor compliance with the WPS—work settings sometimes lack fundamentals such as soap, water and towels for proper hand washing."

Social inequities also exist for exposure to other environmental pollutants, the authors note, including noise, air pollution, methylmercury from fish, industrial waste and PCBs, although it's not known how these pollutants might act together with other influences on development. Such research, note the authors, "has the potential to revise the way socio-demographic variables are viewed as influencing development."

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Summarized from Child Development, Vol. 77, Issue 2, *Mercy Mercy Me: Social injustice and the prevention of environmental pollutant exposures among ethnic minority and poor children* by Dilworth-Bart JE and Moore CF (University of Wisconsin, Madison). Copyright 2006 The Society for Research in Child Development, Inc. All rights reserved.