A Hidden Problem
Lead-Poisoned Children in the United States

This map shows the number of children (aged 1-5 years) with elevated blood lead levels in 2010 by state. We developed a statistical model (Statistics in Medicine 2016;35(29):5417-5429) and utilized data from the census to generate these estimates.

Commonly cited estimates of lead poisoning in children are based on data from blood tests conducted by medical providers. But lead testing is not required for all children in the United States, state testing guidelines vary, and not all states report lead testing data to the CDC. Therefore, estimates based on lead testing data are incomplete.

The reference level, currently 5 µg/dL, is the blood lead level at which the CDC recommends action be taken to remove sources of lead from a child's environment. The reference level is not a safety level. No amount of lead in the body is safe, and harm can occur at exposures beneath the reference level.

Current estimates of lead exposure in children are based on data from blood tests conducted by medical care providers. However, not all children are tested, and we don't know how many untested children have lead in their bodies.

Using advanced statistical methods, we estimated the number of lead-poisoned children in each state and compared this to the number of children that were diagnosed with lead poisoning and then reported to the CDC by each state. For this analysis, we looked at children aged 1-5 years with blood lead levels of 10 ug/dL or higher from 1999-2010.