

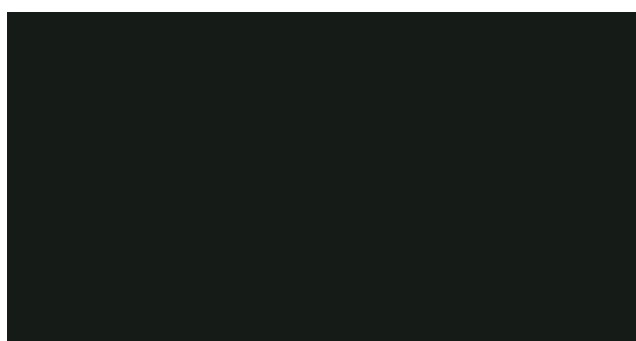
Study: 19% of refugee children have elevated blood lead levels

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Nearly one in five refugee children has elevated levels of lead in their blood, according to a new study.

While the rate has been decreasing, it still is significantly higher than for U.S. children, leading to calls for increased vigilance and education.

Lead exposure has been associated with health, learning and behavior problems, and no amount is considered safe.

Researchers from the Centers for Disease Control and Prevention (CDC) and several public health departments aiming to quantify elevated blood lead levels (EBLL) among refugee children analyzed data from 11 states and one county health department from Jan. 1, 2010, to Sept. 30, 2014. The 27,284 children in the study represented about a quarter of refugee children during that time, according to “Blood Lead Levels Among Resettled Refugee Children in Select US States, 2010-2014,” (Pezzi C, et al. *Pediatrics*. April 17, 2019, <https://doi.org/10.1542/peds.2018-2591>).

The CDC recommends screening refugee children ages 6 months to 16 years when they arrive in the U.S. and retesting those under 6 years three to six months later. EBLL is defined as more than 5 micrograms per deciliter ($\mu\text{g}/\text{dL}$).

The study found about 19% of the refugee children had an EBLL, with the highest rates among those who were young or male. Roughly 2% had levels above 10 $\mu\text{g}/\text{dL}$, and 0.2% had levels of 45 $\mu\text{g}/\text{dL}$ or more.

Authors noted the rate of EBLL in refugee children ages 1-5 years was 10 times higher than the rate for U.S. children in the decade before the study period.

From 2010-'14, rates of EBLL declined from 24% to 14%, which may have been due to improvements like electricity and phasing out leaded gasoline in children's home countries, according to the study. Children from India (58%) and Afghanistan (55%) had the highest rates of EBLL.

Using a limited data set on children with follow-up results, researchers found about 16% had EBLL on both tests and 6% had EBLL only at follow-up, likely meaning they were exposed in the U.S. About 10% of children saw their blood lead levels increase by at least 2 µg/dL.

Previous studies have found in addition to exposures in their home countries, families arriving in the U.S. may be exposed to lead if they are resettled into older housing or through imported products.

Authors encouraged states to notify the CDC of high EBLL rates and to help educate refugee families about preventing exposure.

"Refugee children with potential lead exposure can arrive in any state, so it remains important to improve linkages between federal, state, and local lead and refugee health programs to facilitate collaboration, ensure appropriate screening and follow-up for refugee children, and share best practices," they said.

Resources

- [Related commentary "Preventing Harm on Arrival: Lead Prevention in Newly Resettled Pediatric Refugees"](#)
- [CDC guidance on screening refugee children for lead](#)
- [CDC toolkit on lead prevention in refugees](#)
- [AAP Immigrant Child Health Toolkit](#)
- [Information for parents from HealthyChildren.org on preventing lead exposure](#)
- [Pediatric Environmental Health Specialty Units](#)

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