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Researchers Call for Stricter Standards to Prevent Lead Poisoning in Children

Morrisville, NC (September 27, 2018) – In an article published in the latest issue of the [North Carolina Medical Journal](#), researchers from RTI International share findings from a survey of lead levels in water at child care centers in North Carolina, and make a call to action for mitigating the risk of lead exposure.

Lead has long been known to cause adverse health effects, from peripheral nerve damage to reduced intelligence quotient (IQ), and there is no safe level of exposure.

Through the Clean Water for Carolina Kids (CWCK) study in 2017, RTI found that about 75 percent of the samples collected had between 0.1 and 3 parts per billion (ppb) of lead. Because of current regulations, however, only 1 percent of those samples exceeded the level that requires public utilities to take action – 15 ppb.

“There is a gap in the goal for lead exposure, which is 0 ppb, and this treatment-based action level for public utilities,” [write senior RTI environmental scientist Jennifer Hoponick Redmon and coauthors](#). “To safeguard both children’s health and public health overall, a health-based standard must be considered with comprehensive testing, mitigation, and communication protocols for lead in drinking water that reflects the current state-of-the-science.”

Another piece of research published in the latest issue of the NCMJ [gives a glimpse at the breadth of the problem in North Carolina](#). Kim Angelon-Gaetz and Ann Newman Chelminski of the Division of Public Health analyzed blood lead test results and demographic data for children under 6, as reported to North Carolina’s Childhood Lead Poisoning Prevention Program (NC CLPPP). They found that each year, about 600 North Carolina children have confirmed blood lead levels greater than or equal to 5 micrograms per deciliter ($\mu\text{g}/\text{dL}$), the level of concern in children established by the Centers for Disease Control and Prevention. Between 2013 and 2017, 0.58 percent of tested North Carolina children

between the ages of 6 months and 6 years had confirmed elevated blood lead levels, but the authors note that only about half of all eligible kids in North Carolina are screened for lead, in part because kids with high blood lead levels may be asymptomatic.

State law was recently amended to come in line with the CDC's recommendations on elevated blood lead levels in children. Angelon-Gaetz and Newman Chelminski recommend that clinicians follow updated screening guidelines, provide information to parents, and test for lead poisoning whenever a child presents with developmental delays, gastrointestinal complaints, or other related symptoms.

To read "[Safeguarding Children's Health: Time to Enact a Health-Based Standard and Comprehensive Testing, Mitigation, and Communication Protocol for Lead in Drinking Water](#)" by Jennifer Hoponick Redmon, Jacqueline MacDonald Gibson, Anna M. Aceituno, Katherine P. Woodward, and Keith E. Levine; and "[Trends in Lead Poisoning Prevention Data for Children Aged <6 Years in North Carolina](#)" by Kim Angelon-Gaetz and Ann Newman Chelminski, visit ncmedicaljournal.com.

The North Carolina Medical Journal is a journal of health policy analysis and debate co-published by the North Carolina Institute of Medicine and The Duke Endowment. The NCMJ publishes six issues per year. This issue is co-sponsored by Medical Advocates for Healthy Air and the Duke Environmental Health Scholars Program. To learn and read more, visit ncmedicaljournal.com.

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