

Evidence and sustained leadership help reduce lead exposure for women and children

Children are especially vulnerable to lead exposure because their bodies absorb lead more efficiently, and their developing brains are highly sensitive to its toxic effects. Infants and young children can absorb four to five times more lead than adults when exposed.¹

Lead poisoning also causes irreversible neurological damage, attention deficits, learning difficulties and behavioural problems.²

UNICEF has identified lead poisoning as a significant environmental and public health threat to children in Georgia. Lead contamination in the country stems from various sources, including old lead-based paint, contaminated soil and dust and household items³ – all of which pose serious health risks, particularly to children.

To address this issue, UNICEF supports a lead surveillance system that monitors lead levels and investigates sources of exposure while collaborating with the government and partners to reduce risks.

The collaborations have delivered measurable impacts. For instance, a recent study shows that since 2020, the average blood lead levels in pregnant and breastfeeding women in the Adjara region have dropped by 59 per cent,⁴ marking a significant improvement.

This progress was driven by efforts that began in 2018 when UNICEF, the National Statistics Office of Georgia and the National Centre for Disease Control and Public Health assessed lead prevalence in children's blood. They used the Multiple Indicator Cluster Survey (MICS) – a research programme led by UNICEF that collects household data on children's health, education and well-being.⁵

The MICS found that 41 per cent of children in Georgia had blood lead levels (BLL) at or above 5 µg/dL (micrograms per decilitre), with western regions showing a particularly high prevalence.⁶ The results were alarming and called for urgent action.



59% drop
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In Adjara, where Nutsa, 5, and her family live, 85 per cent of children had elevated blood lead levels (BLLs) in 2018 according to a Multiple Indicator Cluster Survey. As part of a 2024 follow-up study, Nutsa was one of 1,000 children participating in new research. At her home, UNICEF's Nino Dzotsenidze, together with the local office of the National Centre for Disease Control (*not pictured*), used various technologies to detect toxic metals – aiming to reduce Nutsa's exposure to lead in the home (Watch a video on [UNICEF and lead surveillance in Imereti and Adjara](#)). ©UNICEF Georgia

Following the study, UNICEF worked closely with the Government of Georgia to significantly and strategically strengthen its institutions, laboratories and surveillance systems to better detect and address lead contamination. The government also enhanced front-line health services, regulations, enforcement and accountability measures to protect children from lead exposure. This included providing free testing, consultations and supplements for children with elevated blood lead levels.

UNICEF provided the government with technical assistance, resources and guidance to develop a long-term strategy for reducing lead exposure, with a particular focus on children. Additionally, UNICEF supported the establishment of the [Chemical Risk Factor Research Laboratory](#) and the [government-endorsed Environmental Health \(Lead\) Surveillance System](#), which was piloted in two regions. The lab examines toxic elements in various specimens, while the surveillance system tracks lead prevalence and investigates sources of exposure.

To strengthen monitoring efforts, the government is expanding the surveillance system to six regions in 2025, aiming for full implementation in all 10 regions by the end of 2026.



[Watch a video of Georgia's national lead monitoring programme in action as children receive free blood lead level testing.](#)

The Environmental Health (Lead) Surveillance System makes lead testing easier and less stressful for children by using a simple finger prick instead of traditional blood draws. The collected blood dries at room temperature, removing the need for special storage and allowing for efficient, large-scale monitoring. This system helps identify high-risk areas, guiding prevention efforts and stronger regulations to reduce lead exposure in Georgia. ©UNICEF/Geo-2023/Tsetskhladze



Global Action

Building on lessons learned from reducing lead exposure in Georgia in collaboration with government and public health partners, UNICEF is expanding its efforts to combat lead poisoning in over 30 countries. This includes the launch of the [Partnership for a Lead-Free Future](#), in 2024 ([read more](#)).

- 1 UNICEF, 2023, [Seven things to know about lead exposure](#).
- 2 UNICEF, 2020, [The toxic truth](#).
- 3 Pure Earth, [Lead-Adulterated Spices in Georgia](#); Georgia Department of Public Health, [Healthy Homes and Lead Poisoning Prevention](#).
- 4 International Journal of Hygiene and Environmental Health, 2025, [Time-trends of blood lead levels from 2020 to 2023 in pregnant and breastfeeding women from Adjara, Georgia – A birth registry-based study](#).
- 5 UNICEF, accessed June 2025, [About MICS Programme](#).
- 6 National Statistics Office of Georgia, UNICEF, 2018, [MICS Statistical Snapshot: Georgia - Lead](#).