

New Research: Lead pollution is increasing the risk of intellectual disabilities among children and causing four times higher deaths in Bangladesh; costing up to 9% of the country's GDP.

'Lead-safe Bangladesh Coalition' calls for urgent multi-sectoral actions

DHAKA, Bangladesh, 12 September 2023 - Bangladesh, the fourth most lead pollution impacted country in the world, is facing a significant IQ loss among children and cardiovascular diseases death among adults due to lead pollution. **New research published these findings today in the Lancet, a scientific journal.**

Today, the Lancet Planetary Health journal published the World Bank's analysis titled '*Global health burden and cost of lead exposure in children and adults: a health impact and economic modeling analysis.*' The report estimates that the level of harm due to lead exposure is far greater than previous estimations.

According to the study, lead pollution has serious implications for children below five years of age, causing a loss of about 20 million (20,596,306) IQ points, and causing a very high economic cost of US\$10,897 million, which is 3.6 percent of the country's annual GDP. Childhood lead poisoning increases the risk of decreased intelligence in children, learning problems, and behavioural disorders.

About 140,000 (138,054) cardiovascular disease (CVD) deaths among adults aged 25 years or older due to lead exposure exceeded the previous estimation with a four times higher mortality rate. The combined cost of these health effects was US\$28,633 million which is a loss of 6 to 9% of the country's GDP in 2019.

In Bangladesh, the major sources of lead exposure include used-lead acid battery recycling in informal settings, leaded paint, aluminum cookware, ceramic food ware, spices, toys, cosmetics, food, electronic waste, fertilizers, and cultured fish feed.

'Lead-safe Bangladesh Coalition' is an alliance of organizations in Bangladesh, which comprises members from NGOs, INGOs, UN, researchers, academicians, and environmental health experts. Coalition members expressed their concerns and urged the government and policymakers to take immediate action following their suggested ten-point action plan to address the lead pollution crisis. Collectively, they call for increased investment to scale up proven solutions.

Dr. Shahriar Hossain, Secretary General, ESDO said, "Despite being standard, decorative and industrial paints still contain high lead levels, and several national and multinational

companies still don't meet the standards. To protect future generations, existing laws, industrial paint standards, and polluter pay principles with these standards must be implemented. Continuous advocacy and multi-sectoral actions involving various stakeholders is crucial.”

Dr. Md. Mahbubur Rahman, Project Coordinator, Environmental Health and WASH, Health System, and Population Studies Division, International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b) stated, “Our continuous research efforts and accumulation of substantial evidence enabled us to realise the magnitude of the lead pollution problem in Bangladesh. It is high time to take the existing evidence and design interventions to mitigate the problem at the source.”

Dr. Mahfuzar Rahman, Bangladesh Country Director, Pure Earth stated, “Given the profound health and economic toll inflicted by lead exposure in Bangladesh, safeguarding the environment must become a top priority. Pure Earth’s Rapid market analysis of about 200 items in three districts showed the widespread sources of lead in daily commodities such as metallic foodware, ceramic foodware, paint, rice/starch, and toys, posing potentially serious health risks. Strict regulations and increased investment are imperative to further research and implement risk reduction strategies.”

“We may not see it, taste it or smell it, and early symptoms may be hard to identify, but we know that exposure to lead can have devastating consequences on a child’s health, learning and development. When children aren’t able to reach their full potential, this is a tragedy not only for these specific children but their entire communities,” **said Sheldon Yett, UNICEF Representative to Bangladesh.** “National level surveillance, and assessments of possible contaminants in the home, are needed to identify lead exposure and the appropriate response.”

The ten-point action plan to address the lead pollution crisis recommendation includes analysing the lead sources and designing source-specific interventions, building blood lead level surveillance, taking multi-sectoral efforts, increasing monitoring, reviewing the existing policy and enforcing laws and regulations, remediating toxic sites, building capacity of the stakeholders to mitigate the issue, and raising awareness at the national level.

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NOTES TO EDITORS

- *The Lancet Planetary Health* report can be accessed [here](#).
- A full copy of the Pure Earth RMS report, “*Lead in Consumer Goods: A 25-country analysis of lead (Pb) levels in 5,000+ products and foods*,” is available [here](#).
- Comparative Regulatory Review can be found [here](#).

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Annex:

The Coalition's recommendations from the ten-point action plan are:

1. **Lead Source Analysis:** Expand identification of lead-contaminated sites and sources of lead in products and the food supply chain. The Food Safety Authority, Standards and Testing Institute, Ministry of Labour and Manpower, and Ministry of Industry should all be engaged in this for effective intervention.
2. **Design source-specific interventions:** Conduct further research to link blood lead levels and specific sources of lead, eliminate the use of lead in industrial and decorative paints, enforce laws and regulations to shut down the informal used lead-acid battery operations, and arrange alternative and dignified livelihoods for the informal workers
3. **Blood lead level surveillance:** Strengthen the lab capacity at the national and district levels for blood lead level surveillance as a routine monitoring system; Conduct nationally representative blood lead level measurements.
4. **Multi-sectoral efforts:** Develop a national multi-sectoral strategy and action plan to address lead poisoning. The role of the Department of Environment is crucial in controlling lead pollution. The leadership of the Ministry of Environment, Forest, and Climate Change and the Ministry of Health and Family Welfare will ensure the prevention, control, and management of lead pollution in Bangladesh.
5. **Increase monitoring:** Increase monitoring on the import and export of lead chromate and use of lead in consumer products including aluminum cookware and ceramic foodware.
6. **Policy review and continuous advocacy:** Develop or review national policies and operational plan(s) of action to address lead exposure based on identified sources, and enforce legislation, regulation, or mandatory technical standards targeting sources of lead to prevent future exposure. Continuous advocacy and engagement with businesses and the private sector for safe manufacturing practices and disposal of lead in products.
7. **Raise public awareness:** Launch national awareness campaigns to address lead exposure through various media channels. Scale up the national and sub-national awareness campaigns to address lead exposure through engaging youth, and media agencies.
8. **Remediate toxic sites:** Invest in the cleanup of contaminated sites. Reduce access to toxic hotspots, especially for children and pregnant women by remediating the toxic sites and returning them to safe environments.
9. **Capacity building:** Invest more in training healthcare professionals to strengthen the diagnosis and management of childhood lead exposure. Develop training materials and conduct trainings to scale up toxic site remediation work
10. **Comply with regulations:** The private sector should comply with all business regulations, consumer laws, and standards for safe production and disposal of lead in products.