



## Concept Note

### Roundtable Discussion on Economic and Cost Burden of Lead Exposure

December 3, 2024, Tuesday

#### Objective

The primary aim of this roundtable is to discuss the economic implications of lead exposure, particularly focusing on its impact on productivity, healthcare costs, and long-term societal effects. Participants will share insights from their respective fields to formulate actionable strategies for mitigating these costs.

#### Background

Childhood lead exposure remains a pressing public health issue, particularly in low- and middle-income countries (LMICs). Despite global declines in blood lead levels, significant exposure persists, leading to severe economic and health consequences. Recent studies estimate [the global cost of lead exposure at approximately \\$6 trillion, representing about 6.9% of 2019 global GDP](#). In low- and middle-income countries (LMICs), the economic burden is especially pronounced, with losses attributed to decreased IQ levels and increased healthcare costs due to lead-related illnesses.

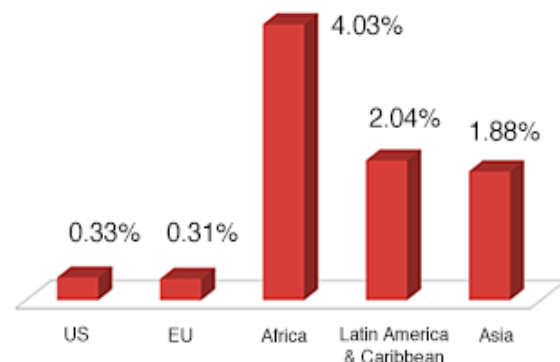
#### Economic Costs of Lead Exposure

[The economic costs associated with lead exposure are substantial:](#)

- ★ **Global GDP Impact:** Estimated economic losses due to reduced IQ are approximately 1.2% of global GDP
- ★ **Burden on LMICs:** The largest economic burden is borne by low- and middle-income countries, with losses totaling around [\\$977 billion](#).

#### Regional Economic Losses

Region	Estimated Losses (in billion USD)	Percentage of Regional GDP
Africa	\$134.7	4.03%
Latin America and the Caribbean	\$142.3	2.04%
Asia	\$699.9	1.88%





## Health Consequences

Lead is a potent neurotoxin that can cause irreversible damage, particularly in children whose brains are still developing. Even low levels of lead exposure can result in:

- Cognitive Decline
- Behavioral Issues
- Long-term Health Effects

Research indicates that [blood lead levels \(BLLs\) above 5 µg/dL are linked to significant reductions in IQ](#). Children exposed to lead are at a higher risk for attention deficits, learning disabilities, and behavioral problems, which can persist into adulthood. The consequences extend beyond childhood, potentially leading to increased risks of criminal behavior and other health issues later in life.

## Conclusion

Addressing the issue of lead exposure is imperative not only for safeguarding children's health but also for alleviating substantial economic losses on a global scale. Implementing preventative measures and targeted interventions in LMICs is essential to reducing both the prevalence of lead exposure and its associated impacts on cognitive development and economic productivity.

## Roundtable Discussion

This roundtable serves as a pivotal platform for stakeholders to align efforts, share best practices, and develop coherent strategies aimed at combating the multifaceted challenges posed by lead exposure. Together, we can forge pathways toward healthier communities and sustainable economic growth.

**The roundtable discussion focused on several critical points regarding lead exposure.** First, participants assessed the economic burden, evaluating both global and regional costs associated with lead contamination. The conversation then shifted to the health consequences, particularly the neurotoxic effects on children's development and their long-term health risks. A review of policy frameworks highlighting long-term economic strategies that could yield benefits from reducing lead exposure, ultimately supporting sustainable growth.

## Expected Outcomes

- A comprehensive understanding of the economic burden associated with lead exposure.
- Collaborative strategies among participants for addressing this public health issue.
- Recommendations for policy advocacy and future research initiatives.