DEATHS DUE TO LEAD POISONING

1 IN 3 CHILDREN IS POISONED BY LEAD

- Approximately one third of the world’s children are lead poisoned—at or above the WHO threshold and US CDC action level of 5 µg/dL.²
- In 2019, at least 900,000 premature deaths globally, or 1.6% of all deaths, were attributable to lead poisoning—a similar number to deaths caused by HIV/AIDS.³
- 92% of the deaths attributable to lead exposures occurred in low- and middle-income countries.⁴
- The global death rate attributable to lead exposures has increased by 21% since 1990—rising steadily even after most countries phased lead out of gasoline.⁵

NEGATIVE HEALTH IMPACTS OF LEAD POISONING

- Children are particularly vulnerable to lead poisoning due to their smaller size and higher rates of lead absorption.⁸
- Blood lead concentrations as low as 5 µg/dL are associated with decreased intelligence in children, behavioral difficulties, and learning problems.⁹
- Lead exposure in young children is also associated with juvenile delinquency, violence and crime later in life.¹⁰
- Even low levels of childhood lead exposure are associated with increased risk of death from cardiovascular, liver and kidney disease later in life.¹¹

SOURCES OF LEAD POISONING AND EXPOSURE PATHWAYS

- Informal used lead-acid battery recycling is a major source of lead poisoning globally.¹² 85% of the lead used today goes into lead acid batteries, and most of those batteries are made and sold in low- and middle-income countries.¹³
- Contaminated cookware, pottery, spices and cosmetics are also significant sources of lead poisoning.¹⁴

THE GLOBAL BURDEN OF DISEASE FROM LEAD POLLUTION

A CALL TO ACTION

CHILDREN
- Decreased intelligence
- Behavioral difficulties
- Learning problems

ADULTS
- Cardiovascular disease
- Liver/kidney disease
- Pregnancy complications

INGESTION
- Contaminated dust, water and food, including from unsafe used lead acid battery recycling and smelting, and lead in spices, pottery, cookware, cosmetic and paint.

INHALATION
- Contaminated air due to unsafe lead acid battery recycling; household dust.

- There is no safe level of lead exposure.⁶
- High levels of lead exposure in pregnancy can cause miscarriage, stillbirth, premature birth and low birth weight.⁷
The economic benefits of reducing childhood lead exposure in the USA alone is estimated between $110 billion and $319 billion annually.\(^{17}\)

- Decreases in blood levels have been linked to significant reductions in crime rates.\(^{18}\)
- Soil remediation is cost-effective and provides excellent return on investment.\(^{19}\)

UNICEF and Pure Earth recommendations\(^{20}\), on what countries can do to address lead pollution and reduce exposure among children:

- Set up monitoring and reporting systems, including blood lead level testing.
- Implement prevention and control measures, including preventing children's exposure to high-risk sites, remediating contaminated sites and removing lead from products.
- Strengthening health systems so that they are equipped to detect, monitor and treat lead exposure among children;  
- Conduct public awareness education and behavior change campaigns about the dangers and sources of lead exposure with direct appeals to parents, schools, community leaders and healthcare workers.
- Develop, implement and enforce environmental, health and safety standards for manufacturing and recycling of lead acid batteries and e-waste, and enforce environmental and air-quality regulations for smelting operations.

- Create global metrics to verify results of pollution interventions on public health, the environment and local economies; build an international registry of blood lead level studies; and update international standards and norms around recycling and transportation of used lead acid batteries.

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