



Solve pollution. Save lives. Protect the planet.

COOKWARE INVESTMENT OPPORTUNITY TO REDUCE LEAD POISONING

Lead-contaminated cookware likely exposes millions of people in nearly every country in the world to lead. Despite this, contaminated cookware is severely under-investigated and poorly understood. There is an urgent need to assist governments in setting safety standards for cookware, assessing and monitoring supply chains, and building enforcement capacities. In addition, further research is needed around the properties and leachability associated with cookware as well as mitigation strategies for large scale and artisanal producers. Discover how you can make a sustainable impact on addressing this issue.



2025–2026

BACKGROUND

- 1 Pure Earth's Rapid Market Screening program of consumer products found in marketplaces in more than 25 low-and middle-income countries documented that 52% of the metallic foodware samples, primarily made from aluminum, and 42% of ceramic foodware samples were contaminated with high levels of lead.
- 2 Pure Earth's home-based assessments have shown a high prevalence of lead-contaminated cookware in households with lead-poisoned children.
- 3 Most LMICs' regulatory frameworks to ensure cookware is free of lead and other toxic materials are inadequate or non-existent. Many governments don't have the capacity to assess and monitor manufacturers, supply chains, and distributors, critical for enforcement of any regulations and policies.



PROGRESS TO DATE

1 Global Working Group

Pure Earth convened a global team of experts in January 2024 to form the Lead in Cookware Working Group. This initiative is dedicated to tackling lead contamination in cookware through research, collaboration with stakeholders, and the development of practical interventions and regulatory measures.

Pure Earth Mexico Interventions

- 2 Pure Earth Mexico is pioneering high-impact programs to eradicate the use of lead glazes in Mexican pottery, a leading source of lead exposure. Through the Circle of Women and Barro Aprobado programs, we work with potter communities, restaurateurs, and government stakeholders to spread awareness and access to lead-free pottery across the country.



THE WAY FORWARD: PROGRAM ACTIVITIES REQUIRING FUNDING

2025–2026

1 Research: Funding Needed \$200,000 (Total Budget: \$1,900,000)

- **Ceramic Cookware: \$200,000 funding needed**
 - **Research** is underway to study lead bioavailability in traditional glazed ceramics common in Mexico. Pilot studies compare detection methods (XRF, rhodizonate swabs, Lumetallix spray) to identify lead-leaching pottery. The research measures lead levels across ceramic types and examines how cooking conditions, like temperature and pH, affect lead migration into food. This baseline study aims to inform future research on lead exposure risks from ceramic cookware.
- **Aluminum Cookware: \$1,700,000 funded**
 - **Supply chain:** Supply chain analyses for aluminum cookware track lead contamination sources and pathways across production and distribution networks. In South Africa and Indonesia, studies are underway to examine market structures, regulatory frameworks, and the proportion of cookware from formal and informal sectors.
 - **Leachability:** Leachability studies assess how different foods and cooking conditions affect lead migration from aluminum cookware into food. Testing with water, oils, and acidic foods, researchers aim to simulate real-world use. This research seeks to establish testing standards, focusing on how food type, cooking duration, and acidity influence leachability.
 - **Technical Solutions:** In collaboration with industry, this research explores methods to remove lead from aluminum cookware during production, especially for small-scale and artisanal manufacturers. The goal is to develop a streamlined process to remove lead from scrap aluminum, reducing contamination risks and supporting safer practices.

2 Regional Interventions: Funding Needed \$1,300,000 (Total Budget: \$3,000,000)

- **Andean Region (Peru and Colombia): Funding Needed: \$900,000 (Total Budget: \$1,800,000)**
 - Conduct extensive marketplace screening to validate preliminary findings.
 - Perform Home-Based Assessments with isotopic analysis to determine lead poisoning sources (i.e. cookware vs. other sources like paint).
 - Strengthen government enforcement capacity for market and supply chain assessments.
 - Collaborate with government and industry on regulatory frameworks.
 - Run consumer awareness campaigns on cookware safety, lead-free options, and lead poisoning risks.
 - Pilot lead-free cookware alternatives for producers and consumers.
- **India (Tamil Nadu, Uttar Pradesh, Maharashtra): Funding Needed: \$400,000 (Total Budget \$1,200,000)**
 - Review consumer safety policies across several Indian states, map stakeholders, and develop recommendations for manufacturing lead-free cookware.
 - Strengthen government agencies' capacity for market and supply chain assessments, including equipment procurement.
 - Run consumer awareness campaigns on cookware safety, lead-free options, and lead poisoning risks.
 - Collaborate with industry to share contamination data, engage companies, and hold workshops for cookware producers.

COST BENEFIT OF LEAD INTERVENTIONS



**Lead-
Contaminated
Cookware
Intervention**

**\$310 per death
avoided**

