

# RAPID MARKET SCREENING PROGRAM

## 7 Key Recommendations from Pure Earth

### 1. Blood lead level testing.

Few low- and middle-income countries conduct large surveys or ongoing monitoring of children's blood lead levels. The result is that we have little visibility into the prevalence, severity, and geographic distribution of lead poisoning for most countries. This is one of the largest impediments to solutions. Governments and their development partners should explore and invest in ways to generate primary data on children's blood lead levels so resources can be allocated appropriately, and so progress can be measured. The importance of blood lead level surveillance testing is highlighted by the identification of widespread lead exposure sources in low- and middle income-countries as part of the RMS.



### 2. Home-Based Source Assessments.

Blood lead level surveys should be conducted in conjunction with in-home source analyses to establish connections between contaminated products and actual incidents of lead poisoning. During home-based source assessments, investigators assess a variety of products and environmental media in and around the homes of children with elevated blood lead levels. This combination of blood lead level testing with in-home source analysis can point to correlations between elevated blood lead levels and the presence of contaminated products like those highlighted in the RMS to help identify potentially significant local contributors to lead poisoning.



### 3. Research into foodware leachability and use.

The high prevalence and wide geographic distribution of contaminated metallic and ceramic foodware was a surprise to Pure Earth's team. However, total lead levels in foodware, as measured in the RMS, provide only limited insights into the potential dangers from use. Total lead levels cannot yet tell us concretely what lead dose a person is likely to receive from each use of a pot or pan. While Pure Earth is conducting ongoing leachate testing of more than 100 aluminum pots to help answer these questions, field research is also needed to determine if lead contaminated foodware is used in settings where high concentrations of children could be exposed (e.g., schools, daycares, hospitals) and if the food prepared in such foodware is being contaminated. If contaminated foodware is used in settings with high concentrations of children and the food prepared in that foodware is becoming contaminated, interventions to replace contaminated foodware at these locations could be highly impactful at a relatively low cost. Given the extraordinary prevalence of contaminated metal foodware, research is needed to determine if there are ways to reduce the leachability of lead from metallic pots during or after production through the introduction of an additive, coating, or other means.



#### 4. Establishing recommended limits for total lead in foodware.

The RMS team did not find public health guidelines or regulatory standards for total lead concentrations in foodware from which to set reference levels. Instead, the RMS team created the reference level of 100 parts per million for foodware based on guidelines for other products and on Pure Earth's ongoing research into foodware leachability. While some countries have limits for leachable lead in foodware, assessing the leachability of lead in a product generally requires a lab, which makes screening expensive and time consuming. Instead of establishing leachability limits, regulators should consider setting a maximum allowable concentration for total lead at the lowest achievable level. If exceptions are needed, regulations should force producers to demonstrate that products exceeding the allowable level would not leach lead into food under any condition.



#### 5. Track cosmetics to production sources.

There is a need to track commonly contaminated cosmetics to their production facilities and then work with governments and producers to eliminate lead use. Contaminated eyeliners, for example, can be bought through e-commerce retailers worldwide. Efforts to eliminate lead in such products could have global impacts.

#### 6. Enact and enforce lead paint laws.

All governments should enact and enforce regulations limiting lead in paint and consider guidance provided in the UNEP Model Law And Guidance for Regulating Lead Paint developed by the Global Alliance to Eliminate Lead Paint. Additionally, countries and their development partners should invest in monitoring and enforcement capacities to ensure strict regulatory compliance, taking into consideration the UNEP Lead Paint Law Compliance and Enforcement Guidance.

#### 7. Replicate programs to eradicate spice adulteration.

Successful efforts to stop the adulteration of spices with lead-based pigments in Bangladesh and Georgia should be adapted to other countries with similar challenges, particularly Northern India and Pakistan, where recent assessments suggest a pattern of adulteration.

## ABOUT THE RAPID MARKET SCREENING

The Rapid Market Screening (RMS) program is a project of Pure Earth to gain insights into the consumer products and foods that contribute to lead poisoning in low- and middle-income countries. Between 2021 and 2023, researchers analyzed lead concentrations in 5000 products and foods from markets across 25 countries. Support for this work comes from GiveWell, the Effective Altruism Global Health and Development Fund, and Open Philanthropy. Learn more at [pureearth.org](http://pureearth.org).