



The Poisoning of Children Around the World

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PUBLISHED AUGUST 5, 2016



PHOTOGRAPH BY PURE EARTH

A man smelts lead in Vietnam. Each year there are over 850,000 deaths associated with lead exposure.

Since the disaster in Flint, Mich., it seems each day there is a new report of lead exposure being rediscovered in American cities, towns and schools. Blood lead levels are tripling in some places and children with growing brains are at risk of reduced intelligence and developmental disabilities. These events have put the lead threat back on the front burner of U.S. public health priorities.

But look beyond the United States, and our well-established environmental and public health infrastructure, and you see an even grimmer picture. Severe, persistent lead poisoning is occurring throughout low- and middle-income countries on a massive scale. Our researchers estimate that approximately [26 million people are at risk for exposure to lead globally](#). Some of the adverse health impacts from lead include neurological damage, a decrease in IQ, anemia, increased blood pressure, chronic headaches and infertility.

According to the Institute for Health Metrics and Evaluation, a leading compiler of global health data, there are over [850,000 deaths](#) associated with lead exposure each year. This figure doesn't even include acute poisoning events.

By 2015, Pure Earth, a global non-profit, identified nearly 800 sites around the world where exposure to high levels of lead is resulting in acute poisoning, and that is just a fraction of affected areas. The most common cause of this severe poisoning is backyard recycling of used car batteries to smelt the 20 pounds of lead within for resale. Thousands of these informal lead acid battery-recycling operations are dispersed around urban areas, and are poisoning children and adults in record numbers. The symptoms of fatal lead poisoning present just like death from malaria, contributing to the invisibility of the problem.

Consider what happened in the [seaside village of Thiaroye-sur-Mer in Senegal](#). An increase in the price of recycled metallic lead created an economic opportunity for the villagers who collected spent automotive batteries from neighboring Dakar. Males in the village gathered batteries and broke them apart while women melted the lead into ingots that were later sold. The unsafe practices resulted in the agonizing deaths of [18 children due to lead poisoning](#), and hundreds more were poisoned. This is a practice we have seen in hundreds of poor communities around the developing world.

Arguably, the biggest cost isn't even the number of tragic deaths,

but the millions of children who suffer [lifelong mental disability](#) as a result of chronic lead exposure. They will never be as productive and may, according to some research, be more [prone to violence and aggression](#).

Lead is both a perilous and valuable commodity. In wealthy countries, we know how to safely handle used lead-acid car batteries through collection systems and properly run secondary lead smelters. But very few formal, safe smelters exist in low- and middle-income countries. In poor communities, where people are often forced to choose between health and hazard, the economics are quite obvious. Highly sought after metallic lead is poisoning already stressed communities.

Low- and middle-income countries need help to build a functional, formal infrastructure to collect and safely recycle used lead-acid car batteries. Informal workers need to be absorbed into safe, licensed operations. Once the exposure from open-air lead smelting is stopped, the contaminated sites can be cleaned up. Ongoing health surveillance, environmental monitoring and government accountability are crucial systemic elements that must be part of the solution.



PHOTOGRAPH BY PURE EARTH

In Indonesia, children play in mud that is 21,000 ppm lead, a leftover pile from informal smelting.

While we are confident the people of Flint will one day get safe, lead-free water, we are not so sure about places like Thiaroye-sur-Mer. The U.S. and other high-income nations, along with industry leaders, need to step up and provide development assistance to address this environmental health crisis and put an end to the mass poisoning of children around the world.

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