

# Blood lead levels in Haiti 'a warning for other countries'

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4 out of 10 people who participated in a study in Haiti had levels considered very high of lead in their blood, seven out of ten had detectable levels. Copyright: [AhmadArdity/Pixabay](#)

Blood lead levels among the population of Haiti's capital Port-au-Prince are on average five times higher than in the United States, say researchers, highlighting the urgent need to address the problem in developing countries more broadly.

In [high-income countries](#), lead exposure is associated with cardiovascular disease and higher blood pressure, but the link has not been adequately evaluated in low- and middle-income countries, say the authors of a study published in the journal *Hypertension*.

In a cohort study involving 2,504 adults, US and Haitian researchers found that four out of ten people had levels of the metal in their blood considered very high, while seven out of ten had detectable levels.

They say the results serve as a red flag for other developing countries whose populations may be exposed to [lead contamination](#) and, therefore, more prone to cardiovascular diseases.

Lily Yan, a researcher at Weill Cornell Medicine, in New York, and a co-author of the paper, told SciDev.Net: "Although we suspected that lead levels could be high in Port-au-Prince, we were surprised by how extensive it was."

The authors suggest that population levels of lead should be measured routinely in [low-income countries](#) as part of efforts to tackle [cardiovascular disease](#), the leading cause of death worldwide, according to the WHO.

"There is little data on population measurements of [blood lead levels](#) and this measurement is not included in routine studies. That's because lead testing is expensive and requires special equipment," added Yan.

According to UNICEF, lead is a highly poisonous element that is responsible for nearly 1.5 percent of annual global deaths—almost as many as from HIV and AIDS, and more than from malaria. Lead poisoning affects nearly a third of the world's children, the UN children's agency estimates.

The scientists behind the Haiti study say they now want to continue their research by analyzing possible sources of lead exposure in the island nation. These are suspected to include gasoline, pans and cookware enameled with lead-containing compounds, and car batteries that have been improperly disposed of.

Richard Fuller, CEO of Pure Earth, a non-profit organization focused on fighting disease-causing pollution, believes the Haiti study results are in line with blood [lead levels](#) seen in most countries around the world.

Fuller explains that sources of lead exposure can vary from country to country. In developed countries the main source used to be leaded gasoline, but it has been phased out in recent decades, he says.

"In low- and [middle-income countries](#), one of the main sources of lead exposure is car batteries recycling, which is the most common use of lead today. Lead is also added to spices to make them more colorful," Fuller told SciDev.Net.

"This problem is much more serious than people realize and deserves international attention," he added.

Jack Caravanos, an environmental health expert at New York University, told SciDev.Net that heart disease from [lead exposure](#) was "a problem that can be solved."

"Hypertension is a very complicated disease" and with many causes, added Caravanos. "And if we start eliminating them, either through diet or [eliminating] toxins, we are sure to have an improvement in heart health, which is the biggest challenge."

**More information:** Lily D. Yan et al, High Lead Exposure Associated With Higher Blood Pressure in Haiti: a Warning Sign for Low-Income

Countries, *Hypertension* (2021). DOI: [10.1161/HYPERTENSIONAHA.121.18250](https://doi.org/10.1161/HYPERTENSIONAHA.121.18250)

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