



Program Officer Santosh Harish tests for lead in soil at a contaminated site in Ghana
Photo courtesy of Pure Earth



**LEAD EXPOSURE
ACTION FUND**

September 2025 Update

Executive Summary

When LEAF launched a year ago, global lead poisoning was killing over a million people each year but receiving less than \$15 million annually in philanthropic funds. Few governments in low- and middle-income countries (LMICs) were prioritizing it, and fewer than ten large-scale blood lead level measurement surveys had ever been completed in LMICs. Now, we estimate global lead funding is around \$90 million annually; six LMIC countries have joined the Partnership for a Lead-Free Future since LEAF's launch; and LMIC blood lead level testing is increasing, with around 15 surveys completed or ongoing and over 20 more planned. This momentum is encouraging, since lead remains one of the most cost-effective areas for philanthropic investment we see. Even with this recent progress, it remains highly neglected relative to its burden.

Since the launch of LEAF, we have supported 25 opportunities with over \$46 million, including around \$15 million in the last six months. We're grateful for your support and trust in the LEAF team, and we're happy to share that an anonymous donor has committed an additional \$15 million to LEAF, which will allow us to expand our grantmaking.

Key updates from the last six months include:

- 1. Lead poisoning continues to gain attention from governments, international organizations, and philanthropy.** Since our last update, Sierra Leone, Niger, and Burundi have all passed legally binding lead paint regulations. The World Health Assembly adopted its first-ever resolution on lead exposure, committing WHO to develop a Global Action Plan on Lead Mitigation. Lead is also gaining more philanthropic attention: Pure Earth is an Audacious Project finalist, where they're seeking \$70 million for lead work.
- 2. We've adapted our approach to respond to Bloomberg's major investment and USAID's withdrawal.** Bloomberg's \$250 million commitment is reshaping the field. This doesn't change LEAF's core strategy, since plenty of work remains outside Bloomberg's focus geographies. But we've invested more in countries Bloomberg isn't prioritizing, focused on bringing new organizations into the lead space, and funded earlier-stage research to complement Bloomberg's work with established partners. We've also increased our measurement work to fill gaps left by USAID's collapse.

We're doing better than expected on our goals – seven out of nine are on track. This wasn't guaranteed when we started. We set ambitious goals that we saw as 50th-percentile outcomes. These goals weren't meant to predict what LEAF would accomplish alone, but what we hoped the whole field would achieve by 2027. Bloomberg's investment has accelerated progress – hitting our mainstreaming targets early has made our other measurement and mitigation goals more achievable, since the field has funding available sooner than expected.

Topic	Target ¹	Status
Measurement		
1.1 Blood lead level monitoring	Nationally representative surveys of blood lead levels have been conducted in at least four countries (or large states/provinces) that currently lack that data.	On track (more)
1.2 Source identification	Sources comprising the majority of expected lead exposure have been identified in at least five countries (or large states/provinces) where they are not currently known.	On track (more)
1.3 Paint assessment	Marketplace surveys assessing the prevalence of lead in paint have been run in at least 25 countries (or large states/provinces).	On track (more)
1.4 Spices assessment	The prevalence of lead in spices has been assessed in at least 90% of countries (or large states/provinces) in which it is suspected to be a major source of exposure.	Not on track - attention needed (more)
Mitigation		
2.1 Paint mitigation	At least 10 countries (or large states/provinces) have largely eliminated lead in paint (i.e. at least 80% of paint by market volume has been confirmed lead-free in a survey).	On track (more)
2.2 Spices mitigation	Lead in spices has been largely eliminated (i.e. at least an 80% reduction in prevalence of contamination) in at least half of the countries (or large states/provinces) in which it has been identified as a major source of exposure.	Not on track - attention needed (more)
2.3 Other sources	At least three successful mitigation projects have been completed, leading to a measurable reduction in the prevalence of lead by at least 50% in an expected major source other than spices and paint (e.g. cookware, ceramics, cosmetics).	On track (more)
Mainstreaming		
3.1 Funding commitments	Funding commitments (excluding contributors to this fund) have increased from ~\$5M / year to at least \$50M / year by 2027.	Completed (more)
3.2 Aid agency attention	At least three bilateral or multilateral aid agencies have dedicated efforts related to lead exposure.	Completed (more)

¹ We've made some language edits to clarify our targets – more information on those edits is in [Appendix II](#).

Key Updates

1 Lead poisoning continues to gain attention from international organizations, governments, and philanthropy

Country Regulations

Since the beginning of 2025, Sierra Leone, Liberia, Burundi, and Niger have created legally binding lead paint regulations. In Niger, Sierra Leone, and Burundi, the Lead Exposure Elimination Project (LEEP), a LEAF grantee, conducted paint testing studies with government partners and organized workshops with stakeholders to present study findings and develop regulatory plans, which likely contributed to these countries' lead paint regulation efforts.

World Health Organization

In May of this year, the World Health Assembly (WHA) adopted a resolution on lead exposure, introduced by the U.S. and co-sponsored by countries including Bangladesh, Ghana, Indonesia, Ireland, Malawi, Nepal, Peru, the Philippines, and Vanuatu. This marks the first time WHO Member States have collectively recognized lead as a major global health priority. The resolution commits WHO to develop a Global Action Plan on Lead Mitigation and strengthen measurement, surveillance, and policy support. It also calls on countries to integrate lead into national health agendas. Though resolutions like this are often symbolic and don't commit countries to specific actions, this is a signal of political will and interest from international organizations.

USAID played a key role in the resolution's adoption. USAID drafted the text of the resolution, got it approved by the U.S. government, engaged with member states (including meeting with country representatives and asking for resolution co-sponsors), and submitted the final draft to the WHA board in December 2024. We think that USAID's interest was enhanced by their work alongside LEAF on co-creating the Partnership for a Lead-Free Future.

Audacious

Please keep this confidential until it's announced publicly, but Pure Earth, one of our anchor LEAF grantees, is an Audacious Project finalist. Audacious is a collaborative funding initiative that shares ambitious ideas with Audacious's community of funders. Pure Earth's Audacious proposal is for \$70 million over 2026-2033, which they would use to work on measurement and mitigation in 22 low- and middle-income countries. Pure Earth being named as a finalist is evidence of growing donor interest in lead – if their Audacious proposal is successful, it would be a major step toward significant reductions in lead poisoning worldwide. We think LEAF's support helped Pure Earth achieve the reach that made them a stronger Audacious contender.

Good Ventures, the philanthropic foundation of LEAF contributors and Open Philanthropy co-founders Cari Tuna and Dustin Moskovitz, has committed funds to support their proposal at Audacious.

2 LEAF continues to adapt to the shifting lead landscape

As we shared in our [last update](#), Bloomberg Philanthropies' \$250 million commitment and USAID's inability to play a leadership role in lead work globally have reshaped the field. LEAF's strategy is to be flexible and responsive to changes like this to maximize our impact.

Bloomberg

Though Bloomberg's large commitment will be transformative in reducing lead poisoning globally, lead remains highly neglected. Even with recent increases in lead funding and reductions in funding for other global health priorities, lead exposure receives dramatically less support than malaria, which is itself neglected compared to diseases that impact people in rich countries.

Public health issue	DALYs (GBD 2021)	Annual aid funding	\$/DALY
Lead (before LEAF)	22–35 million	~\$15 million	~\$0.40–0.70
Lead (2025)	22–35 million	~\$90 million ²	~\$2.50–4.10
Malaria (pre-aid cuts)	~55 million	~\$2.95 billion ³	~\$53
Malaria (rough 2026 estimate) ⁴	~55 million	~\$2.4 billion	~\$44

The significant increase in lead funding represents real progress, but opportunities for cost-effective investment remain. Bloomberg's priority locations are India (five states), Brazil (two states), Nepal, Malawi, Rwanda, Tanzania, Ethiopia, Ghana, and South Africa. These locations make up less than 15% of the global lead burden, leaving significant room for LEAF grantmaking in other high-burden countries. The non-Bloomberg priority countries that LEAF is most focused on represent around 42% of the global lead burden.

We wrote in the [last LEAF update](#) that Bloomberg's commitment would shift our grantmaking focus toward locations Bloomberg isn't prioritizing; bringing new organizations into lead work; and investing more deeply in earlier-stage research, to complement Bloomberg's more policy-focused grantmaking. We've implemented those strategic shifts in the last six months.

- **Focus on countries that remain neglected:** We focus our grantmaking on locations that receive a small amount of philanthropic funding relative to their lead burden, many of which are not Bloomberg priorities, such as Bangladesh and Pakistan. For example, we recently funded a [blood lead level survey](#) and [cookware research](#) in Bangladesh, as well as [source identification and mitigation work in Bangladesh and Pakistan](#).

² Estimate based on Bloomberg (\$50 million annually) + LEAF (\$30 million annually) + rough estimate of outside funding (~\$10 million annually).

³ IHME estimate of 2024 malaria aid funding.

⁴ This is a rough estimate, which assumes that U.S. malaria funding in 2026 falls to ~55% of 2024 levels. It is based on GiveWell forecasts of U.S. aid funding, which uses estimates from GiveWell staff members, superforecasters, external experts, and betting markets. Our estimate also assumes other factors, such as non-US malaria aid funding and the malaria burden, remain constant.

- **Field-building:** We've been investing in bringing new organizations into the lead space. We supported [Stanford's Project Unleaded](#), which we believe has the potential to become an anchor organization for the entire field, and we're supporting [Global Development Incubator \(GDI\) to incubate new lead projects](#).
- **Research:** We've prioritized early-stage research that can benefit the entire field, such as our [Project Unleaded grant for source identification and tool development](#), a grant to [icddr,b for cookware supply chain research](#), and a grant to [UNICEF to develop standardized measurement protocols](#) that can be used globally.

Additionally, there are a few areas where LEAF's and Bloomberg's strategies are naturally complementary:

- **Measurement is a core element of both our and Bloomberg's strategies.** LEAF's measurement strategy is broad and opportunistic – we're focusing on funding low-cost measurement surveys that are responsive to government prioritization, with the goal of encouraging government action on lead mitigation. In contrast, Bloomberg's measurement approach is more focused on depth: they're aiming to help create national surveillance systems, which can provide high-quality and lasting information for governments in a few countries.
- **LEAF's grantmaking strategy is flexible and responsive.** We make some large investments in key partners, but a core element of our work is smaller, earlier-stage bets, like a grant to [incubate programs through GDI](#) and supporting [Pahle India's first work in measurement](#). We retain the ability to pivot as the landscape and opportunities evolve. Bloomberg's lead strategy is focused on making significant investments in large, trusted organizations – they allocated their full \$250 million upfront to established partners like Vital Strategies, Resolve to Save Lives, LEEP, and Pure Earth. These strategies are naturally complementary and play to the strengths of the two organizations – Open Philanthropy's opportunistic and [hits-based](#) philanthropy, and Bloomberg's scaling of proven solutions.

USAID

USAID's collapse created gaps in measurement funding and in coordination across the field. To address this, we're stepping up our measurement strategy – we're funding surveys USAID had planned ([starting with Bangladesh](#)), [building UNICEF's capacity for lead testing integration](#), and [planning to expand our measurement grantmaking even further later this year](#). We hope that the PLF's advocacy work and coordination between different organizations can fill some of the leadership gap left by USAID. Additionally, LEAF is doing some broader outreach, namely collaborating with the World Bank on ways to incorporate lead remediation work into loan requirements ([prior actions](#)) and developing a communications strategy targeting donor countries and international organizations. But making the case for expanding in lead is difficult in the current aid environment, as many donor countries are cutting their aid budgets.



DEEP DIVE: PURE EARTH SITE VISIT

Open Philanthropy program officer Santosh Harish sees a small-scale local manufacturer where potentially lead-contaminated aluminium cookware is being made (left) and checks the reading on a pXRF lead detection tool in an area where lead-acid batteries are informally recycled (right).

Santosh Harish, a program officer who works on lead and air quality, and Olivia Larsen, a strategy fellow on Open Philanthropy's partnerships team, went to Ghana to see some of Pure Earth's work firsthand. They joined a site visit that was organized as part of the Audacious process, alongside representatives from TED, Bridgespan, and Bloomberg.

In addition to meetings with government officials, the team visited scrapyards, informal battery recycling sites, and a formal battery recycling plant. Key observations from the visit that will inform LEAF's approach include:

- **Government relationships and political transitions:** Following Ghana's recent elections, there was turnover in senior leadership at key agencies like the Environmental Protection Agency and Ghana Health Service. Pure Earth has developed relationships with officials across different levels of the bureaucratic hierarchy, and this proved valuable — their existing connections with mid-level officials helped them maintain their progress amidst changes in political appointees.
- **Used lead-acid battery recycling:** Part of Pure Earth's work in Ghana is focused on reducing lead exposure through the recycling of lead-acid batteries, like car batteries. Informal recyclers often burn batteries in open pits to extract the lead, which releases lead into the air, and pour the lead-battery acid directly onto the ground, which contaminates soil that can then become airborne dust that children may inhale or ingest. The formal recycling plant the team visited was much safer — emission controls meant less environmental lead release, and its remote location limits children's exposure. The formal recyclers told us that Ghana has much more battery recycling capacity than domestic supply of used batteries. This creates pressure to cut operating costs, and emission controls become an easy corner to cut. Our takeaway was that investments in cleaner facilities need to be coupled with consistent enforcement and enabling policies, such as allowing the import of used batteries from neighboring countries.
- **Cookware challenges:** Many poor Ghanaian families use cookware made from recycled metal of unknown composition, which could leach lead into food if contaminated. The team observed informal cookware manufacturing where scrap metal — potentially containing lead from car parts or soldered materials — gets melted down into cooking pots. Pure Earth and CGD are running a randomized controlled trial in Northern Ghana to assess whether replacing households' lead-contaminated cookware and eyeliner reduces children's blood lead levels — this should help determine whether these sources are actually major contributors to lead exposure. If the RCT shows cookware as a significant problem, mitigation will be difficult. The formal cookware industry doesn't serve poor households, while the informal sector consists of very small artisanal workshops working with aluminum scrap of unknown composition, making regulatory approaches particularly challenging.

Progress and challenges

Grantee progress

- **The Institute for Health Metrics and Evaluation (IHME)'s newest estimates of the health burden of lead exposure suggest that they may have previously underestimated the health impacts of lead.** The IHME has shared the preliminary results of their 2023 Global Burden of Disease (GBD) Study. Lead causes deaths through increasing cardiovascular diseases, and IHME had previously assumed that lead's impact on cardiovascular diseases came fully through lead increasing systolic blood pressure. Their 2023 update also incorporated the direct impact of lead exposure on cardiovascular disease, which caused them to increase their estimate of annual deaths caused by lead from around 1.5 million to around 3.5 million. We haven't yet fully engaged with the methodology behind this change, and we think that our bottom-line estimates of lead's health burden are fairly likely to end up lower than the 2023 GBD estimate, but this update underscores lead's large health burden.
- **The Partnership for a Lead-Free Future (PLF) has its leadership team on board and has expanded its membership.** The PLF was relatively slow to staff up initially, in part because of ambiguity driven by USAID's collapse. In the last six months, they've successfully hired Abdullah Fadil and Angela Bandemehr in leadership roles. We think that their vision will allow the PLF to better support countries in implementing lead control policies and coordinate different organizations working on lead. Since our last update, the PLF has added one country and 11 nongovernmental organizations to its membership; most notably, Bloomberg Philanthropies joined the PLF. Bloomberg's membership is particularly significant because it signals unified coordination across the field's major funders, as opposed to competing approaches.
- **The Center for Global Development (CGD) has continued to build on their convening and agenda-setting role in the lead space.** CGD hosted the first global Research Conference on Global Lead Exposure in June, which LEAF supported. Feedback was unusually positive — participants noted both the practical value of new research findings and the energizing effect of connecting with others working on lead exposure.

Challenges

- **We have had less traction than we had hoped on getting other donor countries involved.** After USAID's collapse, we had hoped we would be able to encourage countries like Japan, Norway, and South Korea to invest more in lead. The broader aid landscape has made this difficult — not only was USAID dismantled, but the U.K. has cut its aid budget significantly and major cuts are proposed in Germany and France. Given tighter budgets, we've downgraded our expectations for this work and invested less in it.

- **Coordinating lead work across India has been complex.** India's lead burden is large, and many organizations are working to address it. Our team thinks these organizations need to coordinate better and identify clear lanes for themselves, especially between state and federal levels to avoid duplication of work and policymaker confusion due to different organizations pitching ideas to them in parallel. The Indian government disbanded their internal Lead Working Group this year, removing what could have been a coordination point. Coordination is likely to remain a challenge, and it may require additional coordination among funders like LEAF and Bloomberg.
- **Arnold Ventures' expected \$25 million contribution for lead testing device development has stalled.** In our [last update](#), we mentioned that Arnold Ventures expected to contribute to the development of a cheaper lead testing device. This funding has been held up, and we're not sure whether Arnold will end up contributing. We're exploring whether LEAF could support some lead testing R&D ourselves, potentially working with our science team on this.

Looking ahead

Priorities for the next six months

Over the next six months, we expect our priorities to include:

- **Continuing to make major bets on potential anchor organizations.** We plan to focus on developing key organizations for the lead space as a whole – supporting Stanford's [Project Unleaded](#) is the first of these bets. In the next six months, we plan to consider significant grants to LEEP and the Clinton Health Access Initiative (CHAI) to expand their lead work, as well as potentially supporting GDI to spin up a new organization focused on used lead-acid batteries. When assessing these grants, we'll be working to support the expansion of the lead field in a way that's complementary to Bloomberg's anchor partners (largely Pure Earth, Vital Strategies, and Resolve to Save Lives).
- **Scaling our measurement work.** We recently identified over 20 locations where an initial blood lead level survey could be cost-effective, and we hope to work with measurement partners – like UNICEF, Vital Strategies, Pahle India, and CHAI – to design and fund 2-5 blood lead level surveys over the next six months, focusing on high-burden countries.
- **Focusing more on spices.** Since we're [behind on our spices goals](#), we're planning to make some grants to get that work back on track. In the next six months, we hope to support LEEP to expand beyond paint for the first time – that expansion would include spices assessment and mitigation. We hope that this work, combined with Stanford's Project Unleaded assessments and Bloomberg's efforts in Nepal and India, could position us to be on track for our assessment goal and make substantial progress on mitigation, though full mitigation may extend beyond our 2027 timeline given the ambition of our goals.