



Global Lead Program

2024 Results and Achievements

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EXECUTIVE SUMMARY

In 2024, Pure Earth's Global Lead Program made important strides in its mission to measurably and sustainably reduce lead pollution and poisoning in countries where we work, and to encourage and enable increased action by other stakeholders in the global health and development sphere.

2024 was a transitional year for Pure Earth. Our founder and CEO since 1999, Richard Fuller, stepped down and is now focused on research through the newly formed Innovation Lab. Longtime staff member, and most recently our Executive Director, Andrew McCartor, stepped into the role of President and CEO. Upon taking the helm, Andrew led the organization through a process to review and update our strategic plan, with input from team members across all levels, to align Pure Earth's goals to fit the rapidly evolving landscape on the lead issue.

Note to the reader: This report captures not only the direct activities and accomplishments of Pure Earth's global team, but also includes efforts and accomplishments by other global and national institutions in an attempt to capture the fast-paced progression of support and action taken to address the problem of lead exposure and poisoning. [Annex A](#) contains this information.

On the programmatic side, two large multi-year projects - [Protecting Every Child's Potential](#) and [Reducing Lead Exposure in Low- and Middle-Income Countries](#) - closed out during 2024, therefore a major focus this year was on securing new funding. Leveraging our experience, achievements, and relationships, as well as increased global interest and commitments to addressing lead exposure, we successfully pursued major new grants. Activities funded by the new grants will ramp up during 2025.

During 2024, Pure Earth implemented activities from 27 projects across 16 countries ([Annex B lists the projects](#)). Through broad, impactful engagement at local, national, and global levels, Pure Earth supported governments in forming multi-sectoral task forces, integrating lead into national environmental health agendas, and building technical capacity. The program raised public awareness, produced vital action and supported policy action. Collaborative efforts led to policy shifts in Bangladesh, India, the Philippines, and Ghana as well as new declarations, MoUs, initiatives, and strengthened systems to address lead pollution.

Over 2500 blood-lead level (BLL) tests were administered in five countries, including landmark assessments in Kyrgyzstan (first-ever national BLL survey) and Georgia (results evidenced positive impact of policy and public health interventions) to understand the scope and severity of lead exposure.

We conducted 56 environmental and 6 market assessments to gain information about exposure sources, generating new data on cookware and spice contamination.

We produced 48 major awareness-raising events and 23 new videos, published 9 papers, and developed [technical tools](#) to standardize environmental testing.

While no site remediations were completed in 2024, the groundwork was laid for toxic site cleanups in Bangladesh, Ghana, Indonesia, and Mexico with implementation planned for 2025.

These actions, combined with strategic communications, capacity-building, and advocacy, continue to position Pure Earth as a driving force in global efforts to reduce childhood lead poisoning and create safer environments for all.

The Global Lead Program has been instrumental in elevating lead exposure as a priority for action by governments, policymakers, multilaterals, and major funders. By bringing greater visibility and increased understanding of lead exposure through new data and evidence on its prevalence, severity, and sources, and through advocacy around impacts and interventions to prevent or mitigate it, the goal of tackling lead exposure has steadily gained traction among national and global actors.

It is important to view Pure Earth's achievements as a vital piece of a larger whole. 2024 saw major commitments from the U.S. government, particularly USAID, and Administrator Samantha Power who amplified global momentum by committing \$4M to lead mitigation, hiring a Lead Coordinator, and co-launching the Partnership for a Lead-Free Future with UNICEF and WHO, and recruiting dozens of founding partners in government ministries and other organizations.

Aggregated Results and Achievements

- **16 Global Lead Program Countries**
- **27 Global Lead Program Projects**
- **48 Major Awareness-Raising Events**
- **23 Videos Produced**
- **2,575 BLL Tests Administered** (2,245 children, 77 pregnant women, 88 occupational, 165 non-occupational)
 - **364 Georgia** (children)
 - **769 Tamil Nadu, India** (692 children, 77 pregnant women), results pending
 - **253 Mexico** (88 occupational, 165 non-occupational)
 - **1,160 Kyrgyzstan** (children), results pending
 - **29 Philippines** (children with disabilities)
- **4 Home-based Assessments (HBA)** (1 Georgia, 1 Philippines, 1 Kyrgyzstan, 1 Tamil Nadu, India)
 - **180 homes assessed, HBA** (50 Georgia; 3 Philippines, 72 Kyrgyzstan (*ongoing*), 55 Tamil Nadu, India (*ongoing*))
- **56 Environmental Assessments**
 - **0 new toxic lead sites entered into TSIP database**
 - **1 detailed site assessments (DSA) conducted** (1 Bangladesh)
 - **55 environmental assessments conducted, non-HBA** (Mexico)
 - **55 workshops assessed, non-HBA** (Mexico)
- **3 Community Assessments** (1 Ghana, 1 Tamil Nadu, India, 1 Indonesia)
 - **34 educational institutions assessed** (13 Ghana; 10 Tamil Nadu, India; 11 Indonesia)
 - **324 products tested** (62 cookware, 22 food in Ghana; 58 cookware, 84 food in India; 45 cookware, 53 food in Indonesia)
- **2 Market Assessments** (Gujarat, India, Namibia)
 - **6 markets assessed** (6 Gujarat, India)
 - **389 product samples tested for lead**
- **Capacity Strengthening** (Laboratory Capacity)
 - **6 LeadCare Analyzers, 44 test kits** (2,112 tests), 1 XRF donated to the Government of Kyrgyzstan
 - **4 LeadCare II Analyzers, 16 test kits** (768 tests) donated to the Government of Maharashtra, India
- **2 Country Offices registered for initial or new status with respective governments** (India, Peru)

SUMMARY OF KEY ACCOMPLISHMENTS BY OUTCOME

The Global Lead Program tracks its achievements across five outcomes and associated indicators. Further information about the outcomes, activities, and results, by country and project, are included in the body of this report.

OUTCOME 1: INCREASED PROFILE AND PRIORITIZATION OF LEAD EXPOSURE AT NATIONAL LEVEL THROUGH ADVOCACY AND AWARENESS-RAISING

Indicated by “signals of support” for addressing lead pollution from governments and other national and international stakeholders and by the outputs of Pure Earth efforts including: major media coverage, events, webinars, videos, social media, participation in key conferences, and publications about our work.

- **16 Global Lead Program Countries**
- **27 Global Lead Program Projects**
- **48 Major Awareness-Raising Events**
- **23 Videos Produced**

OUTCOME 2: NEW DATA AND EVIDENCE ON PREVALENCE, SEVERITY, AND DISTRIBUTION OF LEAD EXPOSURE

New data and evidence generated through BLL testing of specific groups of people, representative samples, and/or control groups.

2,575 BLL Tests Administered (2,245 children, 77 pregnant women, 88 occupational, 165 non-occupational)

- **364 Georgia** (children)
- **769 Tamil Nadu, India** (692 children, 77 pregnant women), results pending
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- **29 Philippines** (children with disabilities)

OUTCOME 3: NEW DATA AND EVIDENCE ON SOURCES OF LEAD EXPOSURE

New data and evidence on sources of lead exposure gathered through testing products and environmental media in the homes of individuals; products in markets; and/or environmental media around contaminated sites for lead content. New data on contaminated sites may be entered into the Toxic Sites Identification Program (TSIP) database, the largest global database of sites contaminated with toxic chemicals.

- **4 Home-based Assessments (HBA)** (1 Georgia, 1 Philippines, 1 Kyrgyzstan, 1 Tamil Nadu, India)
 - **180 homes assessed, HBA** (50 Georgia; 3 Philippines, 72 Kyrgyzstan (*ongoing*), 55 Tamil Nadu, India (*ongoing*))
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- **2 Market Assessments** (Gujarat, India, Namibia)
 - **6 markets assessed** (6 Gujarat, India)
 - **389 product samples tested for lead**

OUTCOME 4: RISK MITIGATION ACTIVITIES IMPLEMENTED AND RESULTS

These may include contaminated site clean-ups and capacity building such as laboratory equipment donations or placement of expert secondees within government agencies.

- **Capacity Strengthening** (Laboratory Capacity)
 - **6 LeadCare II Analyzers, 44 test kits** (2,112 tests), 1 XRF donated to the Government of Kyrgyzstan
 - **4 LeadCare II Analyzers, 16 test kits** (768 tests) donated to the Government of Maharashtra, India

OUTCOME 5: DEVELOPMENTS IN PURE EARTH'S ORGANIZATIONAL STRUCTURE

- **2 Country Offices** registered for initial or new status with respective governments (India, Peru)

DETAIL ON KEY ACCOMPLISHMENTS BY OUTCOME

OUTCOME 1: INCREASED PROFILE AND PRIORITIZATION OF LEAD EXPOSURE AT NATIONAL LEVEL THROUGH ADVOCACY AND AWARENESS-RAISING

This outcome is reflected through “signals of support,” actions taken by national governments, key NGOs, and academic institutions that demonstrate their commitment to prioritize and tackle lead exposure as a result of increased awareness of the issue. Where Pure Earth was directly involved in these actions, bulleted below, it is noted.

Under Outcome 1, we also report outputs achieved through the modes Pure Earth uses to raise awareness such as major media coverage, events, webinars, videos, social media, participation in key conferences, and publications about our work.

BANGLADESH

- On February 20, 2024, **ESDO and Bangabandhu Sheikh Mujib Medical University (BSMMU) signed an MoU** to address toxic pollutants and safeguard human health and the environment. BSMMU pledged to support ESDO in future projects, organizing events, and training sessions while ESDO committed to engage BSMMU in impactful events. Together, they will facilitate research, develop healthcare guidelines, and communication materials.
- On June 11, 2024, the **Bangladesh Bureau of Statistics and UNICEF announced** the forthcoming launch of the USAID-supported national **Multiple Indicator Cluster Survey (MICS): Round 7 (2024-2025)** which, **for the first time** in Bangladesh, will collect **data on BLLs**.
- On October 2, 2024, under supervision of the MOEFCC, the **“Multisectoral Steering Committee,”** initiated in 2023 as a result of Pure Earth and UNICEF advocacy, **was launched and held its first meeting**, chaired by Dr. Farhina Ahmed, Secretary, MoEFCC. Representatives from 17 ministries, city corporations, trade organizations, and development partners (UNICEF, WHO, World Bank, USAID, ADB, Pure Earth, ESDO etc.) participated.
- On November 5, 2025, to mark ILPPW, the **Ministry of Environment, Forest and Climate Change and UNICEF** organized a **national workshop** to engage government and private sector stakeholders to take action against lead pollution. UNICEF called for a multi-sector action plan among relevant Ministries to respond to lead poisoning. Pure Earth presented **“From Contamination to Restoration: Learning from Soil Remediations & ULAB Impact on Pb Pollution.”**

COLOMBIA

- In May, 2024, **PAHO and Pure Earth signed an MoU** to support heavy metal exposure prevention through: collaboration to reduce pollution and exposure; educational programs to increase awareness and promote safe practices among healthcare providers, community leaders, teachers, parents, and workers; strengthening health systems via safety protocols, training, health infrastructure improvement; coordination with other UN agencies; and advocacy.

GHANA

- On September 11, 2024, the **Lead Mitigation Technical Working Group**, including representatives from Pure Earth, USAID, UNICEF, and the **Ghana Health Service** began monthly meetings.
- In December 2024, the **Suame Municipal Assembly** signed an MoU with Pure Earth to commence remediation of Bremang, a contaminated former ULAB and scrap metal smelting site.

INDIA

- On March 14-15, 2024, the **National Centre for Disease Control (NCDC)** held a 2-day stakeholder engagement workshop, “**National Biomonitoring Programme for Chemical Toxicants,**” for ~60 participants. Objectives: map stakeholders and lab resources, explore opportunities for links between existing initiatives, and develop an action plan for a national surveillance system. Presenters included representatives from the Ministry of Health and Family Welfare, the Council of Scientific & Industrial Research, the All India Institute of Medical Sciences, Pure Earth, Pahle India Foundation, The Energy and Resources Institute, and the Food Safety and Standards Authority of India.
- In September 11, 2024, as a follow-up to the March national biomonitoring workshop, the **NCDC invited Pure Earth to join its Technical Working Group** and first meeting to develop a format for BLL and source assessment data collection and discuss a long-term strategy to tackle lead exposure.

INDONESIA

- On October 3, 2024, the **Ministry of Environment** and Yayasan Pure Earth Indonesia hosted a “**Lead Handling**” workshop for ~50 participants including representatives from Ministries of Health, Finance, Education, Social Welfare, Human and Cultural Development, WHO, World Bank, UNICEF, and the Indonesian Medical and Pediatric Associations. A key outcome was the formation of a **Lead Working Group** and roadmap for mitigating the impact of lead exposure as a national coalition / collaboration. The Director General of Management of Solid Waste, Hazardous Waste and Hazardous Substances Management is spearheading the process and has set a target for both the working group and roadmap to be ready in early 2025, so funding can be allocated in the 2025 state budget.

THE PHILIPPINES

- On January 26, 2024, **Valenzuela City’s Office of Councilor Nina Lopez** and the **Persons with Disabilities Affairs Office** submitted a **Letter of Intent** to work with Pure Earth to establish a

monitoring and surveillance system, receive awareness and source identification and analysis training, and support people affected by exposure through the provision of health and social services.

- On March 20, 2024, member agencies of the **Inter-Agency Commission on Environmental Health signed a Resolution**, making the National Environmental Health Action Plan official. The Plan requires government agencies to integrate 10+ lead-related action points into their policies and programs. Members include departments of: Health, Environment & Natural Resources, Agriculture, Interior & Local Government, Labor & Employment, Trade & Industry, and Science & Technology.
- On April 30, 2024, the **Inter-Agency Committee on Environmental Health** met to share BLL study results and - in a step to institutionalize addressing lead exposure - presented the **Lead Anchors of the National Environmental Health Action Plan 2030**. Members include departments of Environmental & Natural Resources and Agriculture, the FDA, Disease Prevention & Control Bureau, Occupational Safety & Health Center, and the National Poison Management & Control Center. Others: Pure Earth, USAID, WHO, Food & Nutrition Research Institute, National Food Authority, and the Philippine Pediatric Society.
- On September 19, 2024, in partnership with Pure Earth Philippines and the Federation of Persons with Disabilities, **Valenzuela City launched a BLL screening program**, focusing on children with disabilities. This is the 1st city-led BLL screening in the Philippines.

PURE EARTH MAJOR MEDIA COVERAGE, BRIEFING EVENTS & WEBINARS, VIDEOS, SOCIAL MEDIA, CONFERENCES, PEER-REVIEWED PUBLICATIONS

Pure Earth's major publications are a centerpiece of our communications and advocacy efforts. A media campaign and briefing events accompany major publications. Between major publications, we promote program accomplishments and write opinion pieces to maintain a steady stream of key message visibility and awareness. 12 major media articles about Pure Earth (global) and Lead issues in 2024. Major news from 2024 may be found on our [News Coverage webpage](#). Country office news coverage can be found on each country office webpage.

BRIEFING EVENTS AND WEBINARS, HIGHLIGHTS (48)

HQ (7)

- On March 5th, 2024, for International Women's Day, Pure Earth hosted "**Hidden Hazards: Protecting Maternal Health from Toxic Chemical Pollution**," a webinar focused on the intersection of heavy metal pollution and maternal health in LMICs. Panelists included Dr. Lynn Panganiban, Pure Earth Philippines and the National Poison Management and Control Center, Philippine General Hospital; Dr. Aditi Roy, Senior Research Scientist at the Centre for Health Analytics Research and Trends, Ashoka University and the Centre for Chronic Disease Control; Mitali Das, Communications Lead, Pure Earth Bangladesh; Lizeth Olaya, Country Director, Pure Earth Colombia; and Nadima Umar Uthman, GHOne TV, Ghana. The webinar was moderated by Debanjana Choudhuri, Pure Earth India Country Director and hosted by Drew McCartor, Pure Earth Executive Director.
- On March 26, 2024, Pure Earth hosted "**US EPA's International Role in Addressing Lead Exposure, and Ghana's Experience**," a webinar on the US EPA, Ghana EPA, and Pure Earth Ghana's respective efforts

to promote capacity building in LMICs to address lead poisoning and build government capacity to reduce lead poisoning in Ghana. Angela Bandemehr, Sr. International Environmental Protection Specialist, US EPA's Office of International Affairs; Esmond Quansah, Pure Earth Ghana Country Director; and Letitia Abra-Kom Nyaaba, Acting Director in charge of the National Cleaner Production Center, Ghana EPA. Moderated by Mark Engman, Pure Earth's Director of Policy and Advocacy.

- On May 9, 2024, Pure Earth's Director of Policy and Advocacy, Mark Engman, hosted **"Powerful Research on the Scale and Impact of Lead Poisoning Globally,"** with presentations on "Lead Impact on Cardiovascular Disease" by Ana Navas-Acien, MD, PhD, Professor of Environmental Health Sciences at Columbia University, and "The Global Health Burden and Cost of Lead Exposure in Children and Adults" by Bjorn Larsen, International Development and Environment Economist and World Bank Consultant.
- June 12, 2024. Pure Earth, First Focus on Children, and representatives from King County Hazardous Waste Management Program (Washington State) presented **"More than Paint and Pipes: A Conversation on the Various Sources of Lead Exposure and Risks to Child Health and Development."** The webinar drew connections between global and domestic occurrences of lead exposure and made the case that response efforts can occur at all levels of government. Speakers included Kather Sacco, VP, International Children's Policy; Drew McCartor, Executive Director, Pure Earth; and Dave Ward, Policy & Planning Manager, and Monica Ayers, Policy Liaison, Hazardous Waste Management Program, Seattle & King County.
- July 25, 2024. Pure Earth, Consumer Reports, Rutgers University, New York University, and the Center for Global Development co-hosted a webinar, **"Latest Research: Consumer Products, Lead Exposure, and Prioritizing Solutions in the U.S. and Abroad."** Participants presented new research on lead in consumer products including a new study, "A Snapshot of Lead in Consumer Products Across Four U.S. Jurisdictions," Pure Earth's analysis of lead in consumer products from markets in 25 LMICs, and an evaluation of global mortality from chemical pollutants.
- September 24, 2024, during UNGA, Pure Earth, Vital Strategies, and CGD hosted **Making a Lead-Free Future**, an informational briefing event at the Japan Society.
- On October 24, 2024, as part of ILPPW, Pure Earth and Vital Strategies presented a ***"Briefing on the Progress of Blood Lead Level Surveillance in 5 Countries,"*** highlighting progress made in strengthening national healthcare systems in Colombia, Indonesia, Kyrgyzstan, Maharashtra, India, and Peru to prevent, identify, and treat lead poisoning. Supported by Takeda Pharmaceuticals, Ltd., the ***Strengthening Health Systems to Reduce Lead Exposure*** project is focused on expanding blood lead level surveillance, crucial to understanding the prevalence and severity of childhood lead exposure in these 5 countries.

BANGLADESH (6)

- On April 2, 2024, through FCDO's Sustainable Manufacturing and Environmental Pollution (SMEP) Program, Pure Earth, Georgetown (Prof. Amrita Kundu) and Stanford (Prof. Erica Plambeck)

universities, and the **United Nations Conference on Trade and Development (UNCTAD)**, organized a battery industry stakeholder workshop, **“Working with the Battery Industry on Solutions for Quality, Sustainability, and Market Access.”** 40+ representatives from the Asian Development Bank, Asian Infrastructure Investment Bank, International Growth Centre, Advanced Energy Technology of USAID-BADGE, Accumulators Battery Manufacturers & Exporters Association of Bangladesh, and local battery companies participated.

- On April 3, 2024, Pure Earth hosted a 2nd FCDO/SMEP workshop, **“Electric Mobility in Bangladesh: Unified Policies and Healthier Journeys,”** with 30+ policymakers. The workshop produced 8 policy recommendations.
- On May 6, 2024, Pure Earth coordinated an online **Lead-Safe Bangladesh Coalition** meeting, attended by representatives from, among others, UNEP, UNICEF, ESDO, and iccdr, b. Prof. Amrita Kundu, Georgetown University, and Henrique Pacini, UNCTAD, shared insights from the two SMEP workshops in April.
- On May 2, Pure Earth conducted a **Training of Trainers for the Bangladesh Youth Environment Initiative** to prepare its members for Green Day Training sessions for nearly 2,000 students in grades 8-12.
- On June 9, 2024, Pure Earth, in partnership with the Department of Environment (DOE) and two youth organizations, Bangladesh Youth Environmental Initiative and Volunteer for Bangladesh, celebrated **World Environment Day 2024** by organizing a seminar, **“Empowering Youth to Combat Lead Pollution.”** About 150 youths participated. Special guests included Professor Dr. Haque, Dean of the Faculty of Preventive and Social Medicine and Chairman of the Department of Public Health at Bangabandhu Medical University as well as Dr. Hamid, Director General of the DOE. For World Environment Week, Pure Earth also organized a **photo contest** themed, **“A Pollution-free Safe World for Children.”** Over 600 photographers competed.
- During ILPPW 2024, Pure Earth and North South University, with support from the French Facility for Global Environment (FFEM), organized a multidisciplinary seminar, **“Multisectoral Approach to Build a Lead-Free Future”** for stakeholders including students, public health and environmental academicians, government officials, environmental activities, and NGO staff to discuss childhood lead poisoning and collective solutions.

GHANA (10)

- On March 26, 2024, via a webinar hosted by Pure Earth, the US EPA, Ghana EPA, and Pure Earth presented their work to, respectively, promote capacity building in LMICs to address lead poisoning, and build government capacity to reduce lead poisoning in Ghana. The US EPA leads a new international lead exposure WG, established under the Lead Subcommittee of the President’s Task Force on Environmental Health Risks and Safety Risks to Children.
- On June 5, 2024, Pure Earth Ghana presented a webinar, **“Understanding the Impact of Lead and Mercury Pollution on Public and Environmental Health,”** bringing together environmental experts,

industry leaders, policymakers, and citizens to explore the issue of heavy metal contamination. Speakers were Alfonso Rodriguez, Pure Earth Technical Director, Dr. Anita Asamoah, Ghana Atomic Energy Commission, and Richard Kofi Afenu Esq., Extractive Resources Consultant.

- On October 30, 2024, as part of **International Lead Poisoning Prevention Week**, Country Director Esmond Quansah joined **Pent TV** to shed light on the critical issue of childhood lead poisoning and our ongoing efforts to protect children from its harmful effects.
- On November 7, 2024, Pure Earth, UNICEF, and USAID organized a **National Dialogue on Lead Poisoning and Pollution** with participants including EPA, Ministry of Health, Ghana Health Service, University of Ghana, the University of Nevada, and the private sector. The event was live-streamed on GBC News, GBC News Facebook Live Zoom Webinar, and Pure Earth Ghana's Facebook Live.

INDIA (7)

- February 15, 2024. 2nd meeting of **Indian Working Group on Lead Poisoning**, New Delhi.
- March 15, 2024, the 3rd State Roundtable, Chhattisgarh. **“Lead Poisoning in Chhattisgarh: Challenges and Way Forward.”** 20 doctors, scientists, academicians, NGO representatives, and government officials for the presentation of papers and case studies and discussion.
- April 29, 2024, the 4th State Roundtable, Hyderabad. **“Lead Poisoning in Andhra Pradesh-Telangana: Challenges and Way Forward.”** 30 participants from both states, representing medical institutes, universities, and science labs, the State Pollution Control Board and NGOs.
- August 29, 2024, Stanford University workshop in Bihar to present **recent findings on turmeric and lead poisoning**. Pure Earth Country Director, Debanjana Choudhuri, shared Pure Earth’s plans for upcoming activities in Bihar, Uttar Pradesh, and Jharkhand.
- September 2024. At the **American Spice Trade Association's (ASTA) annual regulatory workshop**, Pure Earth Program Manager Lavanya Nambiar presented on our global efforts to reduce lead adulteration in spices in LMICs. With ASTA’s support, Pure Earth is working to eliminate lead-contaminated turmeric in Bihar, a critical step in protecting public health and ensuring safer food practices.
- On December 18, 2024, Pure Earth and Citizen Consumer and Civic Action Group (CAG) hosted a dissemination workshop for the **“Aluminium Cookware Supply Chain Analysis and Lead Mitigation Strategies in Tamil Nadu.”** 28 government, INGO, and academic participants learned about the key findings: 82% of tested cookware exceeded India’s permissible level; lead levels reached 3,000 ppm; and 89% of manufacturers interviewed were unaware of Bureau of Indian Standards’ guidelines. Post-presentation discussion yielded **11 recommendations** for stakeholders.
- On December 19, 2024, Pure Earth, Vital Strategies, Stanford University, Mahavir Cancer Institute, and UNICEF organized **“State-Level Advocacy for Stakeholders on Lead Exposure Impact & Solutions,”** a workshop in Bihar for ~50 participants including the Mayor of Bihar; the Minister of Climate Change and Environment; officials from departments of Health, Agriculture, Industry, and Education; FSSAI;

the Pollution Control Board; research centers, medical colleges, and NGOs to discuss the formation of an **Inter-departmental Panel Committee for Lead Exposure**.

INDONESIA (7)

- On January 23, 2024, Pure Earth Indonesia and Occupational and Environmental Health Research Center - Indonesia Medical Education and Research Institution, the University of Indonesia (OEHRC IMERI FKUI) held a **National Seminar on Lead** to share the result of Blood Lead Level (BLL) and Home-Based Assessment (HBA) study carried out by OEHRC IMERI FKUI and Yayasan Pure Earth Indonesia in Java Island in May-August 2023.
- On September 25, 2024, Country Director, Budi Susilorini, spoke as a panelist at the **12th Asia Pacific Regional Forum on Health and Environment** in Jakarta.
- On October 3, 2024, the Ministry of Environment of the Republic of Indonesia, supported by Yayasan Pure Earth Indonesia, held a **Workshop on Lead Mitigation in Indonesia** and led a discussion with various stakeholders, including the government, universities, and non-governmental organizations, to establish the Lead Working Group and develop a roadmap for addressing this issue.
- On October 26, 2024, the Department of Community Medicine, Faculty of Medicine, the University of Indonesia (IKK FKUI) and Yayasan Pure Earth Indonesia held a **Community Service Event to Educate Motorcycle Taxi Drivers about the Dangers of Lead & potential lead exposure from their work**. Activities included educational sessions on lead, vital signs & hemoglobin checks, and lead-related questionnaire distribution.
- On November 16-17, 2024, Yayasan Pure Earth Indonesia and the University of Indonesia hosted a **Women's Health Expo**. Activities for the 150+ attendees included a talk show, educational sessions, and games.
- On 28 November, 2024, Yogyakarta Health Polytechnic - the Ministry of Health of the Republic of Indonesia organized a **National Seminar on Lead Contamination: Challenges and Solutions for Health and the Environment**, at which Yayasan Pure Earth Indonesia Country Director, Budi Susilorini, presented Potential Sources of Lead Exposure and Supports for Lead Exposure Mitigation Efforts in Indonesia.
- December 13, 2024, **Strengthening Health Systems to Reduce Lead Exposure launch ceremony and talk show event** in Jakarta with the Director General of Disease Prevention and Control, Ministry of Health.

MEXICO (1)

- In July, Pure Earth hosted the **4th Meeting of Lead-free Artisans in Tlayacapan, Moreles**. 318 attendees participated in the following activities:
 - Preparation and application of lead-free enamels
 - Collective burning of the enameled pieces
 - Making clay jewelry

- Plaster molds
- Sale of lead-free pieces
- Exhibition of lead-free pieces
- Screening of the documentary “Arte-sano”

KYRGYZSTAN (3)

- October 25, 2024, for ILPPW, Pure Earth, the MOH, WHO, and UNICEF organized a press conference, **“Protecting Children and Families in Kyrgyzstan from Lead Exposure,”** at the WHO’s offices.
- October 26, 2024, **“Lead is Dangerous to Health”** event, Osh Region, Kara-Suu District, Kara-Suu City, attended by 130 people including government officials, educators, media, schoolchildren, and community members.
- October 31, 2024, **“Lead is Dangerous to Health”** event, Bishkek, attended by 150 representatives from the MOH, National Institute of Public Health, university students and faculty.

PERU AND COLOMBIA (2)

- June 5, 2024. Alfonso Rodriguez presented on the impact of lead and mercury contamination in Colombia at **“Huellas Verdes,”** a seminar organized by Innova Foundation, presenting on the impact of lead and mercury contamination in Colombia.
- October 24, 2024, Pure Earth Colombia hosted **“Educación y prevención: el rol de la academia en el abordaje de la exposición al plomo.”** which explored how academic efforts to educate, raise awareness, and drive policy changes can reduce health risks from lead exposure in Colombia. Panelists included Julia González Puertas, Dean of the Faculty of Chemistry and Pharmacy at the Universidad del Atlántico; Álvaro Javier Idrovo Velandia, Professor at the Universidad Industrial de Santander; and David Combariza Bayona, Lecturer and researcher at the Universidad Nacional de Colombia. Moderated by Daniela Alonso, Pure Earth, and Jérica Rodríguez, Vital Strategies.

PHILIPPINES (5)

- January 31, 2024, Pure Earth Philippines Country Director Larah Ibañez presented during the roundtable discussion on lead situation and solutions in the Philippines with USAID, UP Manila and its Philippine General Hospital - National Poison Management and Control Center (UP PGH NPMCC)
- April 30, 2024, Ms. Ibañez presented "Updates on PE Efforts to Better Understand and Address Lead Exposures" during the chemical safety sub-committee meeting of the Philippines Inter-Agency Committee on Environmental Health (IACEH)

- May 29, 2024, Ms. Ibañez presented on Pure Earth’s work to address lead exposure at a side event at the 77th World Health Assembly in Geneva. The event, [Towards a future free from lead exposure: A ministerial dialogue on preventing maternal and child exposure to toxic lead](#), was hosted by UNICEF and USAID.
- November 14, 2024, Ms. Ibañez presented on "Lead Poisoning in Children: The Role of Civil Society in Assessment, Advocacy and Action" during the Philippines Department of Health (DOH) Media Conference on Environmental Health
- November 20, 2024, Ms. Ibañez presented on "The Global Problem of Lead Poisoning in Children" during the 25th Annual Convention of the Philippine Society of Clinical and Occupational Toxicologists (PSCOT) themed "Targeting the ONE: Old, New and Emerging Poisons"

VIDEOS (23)

Since 2020, [96 videos have been produced](#) addressing different aspects of the lead issue and Pure Earth’s work. In 2020, with Clarios grant, we have made progress on a story gathering/storytelling initiative to bring foreground human impacts of lead pollution and poisoning centering the voices and experiences of people in communities severely impacted. This effort has resulted in award-winning documentaries, including [One in 36 million - A Story of Childhood Lead Poisoning in Bangladesh](#) (2023) and [The Lead Rush](#) (2023). In 2024, the following 23 videos were produced:

- [Indonesia: Lead Exposure Education for Online Motorcycle Drivers](#)
- [Sabbir's Story: The Impact of Informal Lead-Acid Battery Recycling on Childhood Lead Poisoning](#)
- [Pure Earth Philippines Celebrates Our Progress Towards Preventing Childhood Lead Poisoning](#)
- [Ministry of Environment of Indonesia and Yayasan Pure Earth Indonesia Establish a Lead Working Group](#)
- [Valenzuela City and Pure Earth Philippines Screen Children with Disabilities for Lead Poisoning](#)
- [Revisiting Mirzapur, Bangladesh A Year After Pure Earth’s Clean up Intervention](#)
- [Transforming Lead-Acid Battery Recycling, Protecting Future Generations in Bangladesh](#)
- [Pure Earth Ghana Highlights Maternal Health on Mother's Day](#)
- [Lead-Free Future: Restoring Lives, Transforming Communities in Ghana](#)
- [Ghana: Lead-Free Mothers, Healthier Futures](#)
- [Helping Mothers Protect Their Children from Lead Poisoning in The Philippines](#)
- [Informal Battery Factory Owner China Begum Promises to End Harmful Lead-Acid Battery Practices](#)
- [Saleha's Story: From Informal battery Factory to Healthier Living](#)

- [Rina's Story: Transforming Lives by Cleaning Lead-Contaminated Community](#)
- [Strengthening Health Systems to Reduce Lead Exposure Project: Progress Report 2024](#)
- [Lead in Metal Cookware: Uncovering the Prevalence, Understanding the Risk](#)
- [How Are Malawi's Rural Solar Energy Systems and Lead Poisoning Connected?](#)
- [New Methods of Detecting Lead in the Environment](#)
- [Impacts of pollution on maternal and child health](#)
- [Pure Earth's interventions protect the health of women and children](#)
- [Why does Pure Earth prioritize actions to protect women and children?](#)
- [Indonesia: January 2024 National Stakeholder Seminar on Lead](#)
- [Pure Earth Indonesia: Strengthening Health Systems to Reduce Lead Exposure 2023 Annual Report](#)

SOCIAL MEDIA

- **Blogs** - Since 2020, [74 blog posts](#) have been published on various aspects of the lead pollution issue and Pure Earth's work. 22 blog posts on aspects of the lead issue were published in 2024 across all country offices.
- **Social Media Analytics - Organic (Unpaid) Posts, 2024**
 - 804 total posts across LinkedIn, X (formerly Twitter), Facebook, Instagram
 - 221K impressions
 - 87k users reached

KEY CONFERENCES

- July 14-17, 2024. At the [Athens Institute's 19th Annual Symposium on Environment](#), the NCDC, Georgia presented its Pure Earth-supported work, "**Blood Lead Concentration and Exposure Changes in Parallel of Public Health Interventions in Georgian Children.**"
- During the May 21-22, 2024 [APECG 6th Scientific Symposium 2024](#), organized by Action on Preeclampsia Ghana, in Kumasi, Country Director [Esmond Quansah](#) delivered a presentation on how lead pollution affects pregnant women and babies and Pure Earth activities combating it.
- October 13-15, 2024, [World Health Summit](#), Berlin, Germany. Pure Earth President, Drew McCartor, presented the latest activities, learnings, and remaining gaps in global efforts to assess and prevent lead exposure in low- and middle-income countries at a VIP lunch for health ministers and development agency representatives hosted by USAID and UNICEF.

PUBLICATIONS

Note: Research papers with Pure Earth staff as primary authors, or contributing authors.

- Forsyth, Jenna, Akhalaia, Khatuna, Jintcharadze, Mariami, Nash, Emily, Sharov, Petr, Temnikova, Alena. **Reductions in Spice Lead Levels in the Republic of Georgia: 2020-2022.** *Environmental Research*. Volume 250, 1 June 2024, 118504.
- Sargsyan, Aelita, Nash, Emily, Binkhorst, Gordon, et al. **“Rapid Market Screening to assess lead concentrations in consumer products across 25 low- and middle-income countries.”** *Scientific Reports*. (2024) 14:9713.
- Marti, Deniz, Hanrahan, David, Sanchez-Triana, Ernesto, Wells, Mona, Corra, Lillian, Hu, Howard, Breyse, Patrick N., Laborde, Amalia, Caravanos, Jack, Bertollini, Roberto, Porterfield, Kate, Fuller, Richard. **“Structured Expert Judgment Approach of the Health Impact of Various Chemicals and Classes of Chemicals.”** *PLOS ONE*. June 24, 2024.
- Porterfield et al, **“A Snapshot of Lead in Consumer Products Across Four U.S. Jurisdictions.”** *Environmental Health Perspectives*. Volume 132, Issue 7, 075002. July 16, 2024.
- Tellez-Rojo, Martia Maria, Peralta, Netzy et al. **“Intoxicación por plomo en población pediátrica.”** *Salud Pública de México*. Vol. 66, No. 4, July-August 2024.
- Muchtaruddin, Mansyur, Susilorini, Budi et al. **“Determinant Factors of Children’s Blood Lead Levels in Java, Indonesia.”** *International Journal of Hygiene and Environmental Health*. Volume 261, August 2024, 114426.
- Lu, Yi, Nambiar, Lavanya, Bose-O’Reilly, Stephan et al. **Assessment of prevalence of elevated blood lead levels and risk factors among children and pregnant women in Bihar, India.** *Environmental Research*. Volume 250, October 15, 2024, 119528.
- Forsyth, Jenna, Nash, Emily, et al. **“Evidence of turmeric adulteration with lead chromate across South Asia.”** *Science of The Total Environment*. Volume 949, November 1, 2024, 175003
- Cantoral, Alejandra et al. **“Lead Levels in the Most Consumed Mexican Food: First Monitoring Effort.”** *Toxics*. Volume 12, Issue 5, April 28, 29024, 10.3390/toxics12050318

OUTCOME 2: NEW DATA AND EVIDENCE ON PREVALENCE, SEVERITY, AND DISTRIBUTION OF LEAD EXPOSURE

This outcome focuses on the collection and analysis of BLL data to establish the evidence and information that decision-makers need in order to understand the magnitude and potential impacts of lead exposure for a given population or within a given area, and to show just cause for taking action.

Under Outcome 2, we report the number of BLL tests administered, by country and project; our implementation partners, if applicable; timeframe of the data collection and analysis; type of subjects tested; and key findings, if available.

GEORGIA

- # BLL tests administered 2024: 364 children (Poti 63. Guria 301)

This year, Pure Earth's single project in Georgia was the Poti City and Guria region BLL and exposure source assessment which established current BLL prevalence and source data for Poti City and for the Guria region.

Project: Assessment of Blood Lead Levels and Lead Exposure Sources in Children in Poti City and Guria Region, Georgia

A 2018 national survey (MICS-2018) estimated that more than 40% of children aged 2-7 years had a BLL >5 µg/dL. In 2019-2020, the National Center for Disease Control and Public Health in collaboration with UK Health Security Agency and British Geological Survey, conducted a proof of principle study with the purpose of documenting the feasibility of employing lead isotope ratios (LIR) to identify and rank the most relevant lead exposure sources. This study confirmed the key environmental sources for lead exposure such as spices, paint, dust, and soil, corroborating the need for broader, nationwide surveillance and intervention strategies.

Subsequently, regional representative studies were planned, with a focus on enhancing Georgian laboratory capacity for conducting LIR analyses. Poti, in the Samegrelo-Zemo Svaneti region, was selected as the pilot site before launching a broader, regionally representative study in Guria. According to MICS-2018, Samegrelo-Zemo Svaneti reported one of the highest BLL in the country, with a geometric mean of 7.0 µg/dL, following the Adjara and Guria regions, with geometric means of 8.4 µg/dL and 9.9 µg/dL, respectively.

Objectives

- Describe the range of BLL measured in 2023 in children living in Poti and in 2024 in children living Guria and to compare these findings with previous BLL estimates from the MICS-2018 survey, which included a nationally representative sample of children aged 2-7 years (n=1,578).
- Examine the association between BLL and lead concentrations in environmental samples collected during home-based assessments.

Poti City

- October-November 2023
- Georgia NCDC and UK Health Security Agency partners

- 63 children, ages 2-7 years, from 50 HHs (not representative)

Findings

- Min: 0.6 µg/dL
- Max: 15.33 µg/dL
- Median: 1.88 µg/dL
- Geometric Mean: 2.05 µg/dL
- 20.63% >3.5µg/dL
- 3.2% >5 µg/dL
- 1.6% >10 µg/dL

In Poti, BLL levels were low compared with the 2018 MICS survey which estimated that more than 40% of children in Georgia had BLLs higher than the National action level of 5 µg/dL. Only 2 of 63 children had BLLs >5 µg/d and just 1 of these had a BLL >10 µg/dL. Compared with the reference level of 3.5 µg/dL (US CDC), 20.6% of the children in Poti exceeded the threshold. The geographic mean BLL was 2.05 µg/dL. By comparison, the mean BLL among 39 randomly selected Poti children who participated in the 2018 MICS survey was 9.21 µg/dL. The observed decrease is statistically significant at p<0.001 level and consistent with the trend NCDC is observing in the Adjara BLL survey (using LeadCare) it is conducting with UNICEF.

There was also a decrease of lead in spices. Only 2.3% (3/130) of spice samples exceeded the permitted lead level (5 ppm). There's a need for a larger, representative, countrywide study to evaluate the national BLL reduction effects of public health interventions. Continued research, monitoring, and robust laboratory methods based on isotope ratio analysis, targeted interventions, and collaboration across sectors are important to achieving the goal of reducing lead poisoning and ensuring the well-being of children and communities in Georgia.

Guria Region

- August - October 2024
- Georgia NCDC and UK Health Security Agency partners
- 301 children, ages 2-7 years (representative sample)

Initial Findings

- Min: 0.72 µg/dL
- Max: 14.69 µg/dL
- Median: 2.04 µg/dL

- Geometric Mean: 2.05 µg/dL
- 8.3% >3.5µg/dL (CDC blood reference level)
- 4.6% >5 µg/dL

This study estimates the current BLL prevalence among a representative sample of Gurian children to investigate the effect of interventions and to identify the most probable exposure sources through lead isotope ratio analysis. BLL levels were low compared with the 2018 MICS survey which estimated that 73.2% of children in Guria had BLLs higher than the National action level of 5 µg/dL. Results were consistent with the pilot study in Poti, showing a marked decrease in BLL and prevalence of children with BLLs above 5 µg/dL. The median BLL value was only around a fifth (2.04 µg dL) of that observed in the MICS study (9.4 µg dL). Prevalence in MICS of children with BLL ≥5 µg dL was 72.3%, whereas we observed a prevalence of only 4.6%. Likewise, the proportion of children with BLL ≥10 µg dL was reduced from 43.6% to 0.9%. The observed decrease is statistically significant at p<0.001 level and consistent with the trend NCDC is observing in the Adjara BLL survey it is conducting with UNICEF.

There was also a reduction of lead concentration in spices. As was observed in Poti, compared to previously published values, lead concentration was below 0.1 ppm in 17 spice samples and 17 more spice samples were below the Georgian reference value of 5 ppm. Only one sample exceeded this reference value (64.7 ppm).

The current marked reduction in BLLs and incidence of BLL above the action level observed in Guria compared to MICS data suggests a real reduction in lead exposure over time due to improved policy interventions and public health measures. However, an incidence of 4.6% and 12.9% above the Georgian and US blood lead reference values, respectively, together with environmental lead concentrations above reference limits, demonstrate that there's still much to be done. Differences in sampling strategies between the two studies mean that the precise degree of reduction cannot be determined, and may not represent the national picture. Final results will help identify the most likely sources of lead exposure, though further investigations are needed to confirm whether observed reductions are due to genuine changes in exposure levels or methodological differences.

INDIA

- **# BLL tests administered: 769** (692 children 77 pregnant women)

In India, after delays due to the ethical review board approval process, we completed BLL testing of children for the Reducing Lead Exposure in LMICs project and began home-based assessments in seven districts of Tamil Nadu. Final data analysis and conclusions are pending.

Project: Reducing Lead Exposure in Low- and Middle-Income Countries (Tamil Nadu State Representative BLL survey activity)

- November 2023 - June 2024
- 7 districts

- 727 children, ages 1-5
- 76 pregnant women

Findings pending.

KYRGYZSTAN

- **# BLL tests administered: 1,160 children**

Kyrgyzstan was the first of 5 countries in the Strengthening Health Systems to Reduce Lead Exposure project to complete BLL testing. This activity marked Kyrgyzstan's first-ever national BLL survey.

Project: Strengthening Health Systems to Reduce Lead Exposure

- October - December 2024
- 1,160 children
- 21 settlements

Findings pending.

MEXICO

- **# BLL tests administered, occupational: 88**
- **# BLL tests administered, non-occupational: 165**

Pure Earth's work in Mexico focuses on the country's main source of lead poisoning, the glaze used in artisanal pottery. To complement workshops for artisanal potters interested in transitioning to lead-free techniques through training on the use of lead-free glazes and improved kilns, the Mexico team administered BLL tests of artisanal potters and their families. Mexico also administered BLL tests in support of research on the link between lead exposure and pre-eclampsia.

Program: Lead-free Pottery Program

- **Occupational Risk BLL Tests** - BLL tests are performed in potter communities as part of lead-free pottery transition programming under the Lead-Free Pottery Program.
 - 88 tests; Average BLL: 14.38 µg/dL
- **Non-Occupational BLL Tests** - Non-occupational BLL tests were performed to support research on links between preeclampsia and BLLs
 - 165 tests; Average BLL: 7.5 µg/dL

PHILIPPINES

- # BLL tests administered: 29

In the Philippines, Pure Earth supported Valenzuela City to launch its own BLL screening program, focusing on children with disabilities, in September 2024. It was the first city-led BLL screening in the Philippines, brought about through the joint efforts of the City Health Office, Special Education Center, Disability Affairs Office and the office of city Councilor Lopez. An important step toward piloting sustainable, replicable local solutions to tackle the threat of lead poisoning in the country, the Valenzuela initiative built upon the first inclusion of BLL in the Philippines' Expanded National Nutrition Survey (ENNS) in 2021.

Project: Mitigating Lead Exposure in Low- and Middle Income Countries (Valenzuela City Lead Monitoring and Surveillance Pilot Activity)

- September 19, 2024 - 1st round
- 29 children with disabilities, age 5-14 years
- Results: 3 of 29 children (~10%) had BLLs between 3.5-3.6 ug/dL. The rest tested below LeadCare II limit of detection, ug/dL.

OUTCOME 3: NEW DATA AND EVIDENCE ON SOURCES OF LEAD EXPOSURE

This outcome focuses on the generation of data through testing products from markets, products and environmental media from homes of individuals tested for BLLs, and environmental media in communities or from contaminated sites to identify the primary sources and exposure pathways that likely contribute most significantly to lead poisoning. With this information, decision-makers can prioritize sources to address and design and implement source-specific interventions.

New data on contaminated sites may be entered into the Toxic Sites Identification Program (TSIP) database, the largest global database of sites contaminated with toxic chemicals.

Under Outcome 3, we report on the number of assessments by country, project, and type of assessment (home, market, community, toxic site); number and types of samples tested; number of sites entered into TSIP; implementing partners, if applicable; timeframe of the data collection and analysis; and key findings, if available.

BANGLADESH

Risk mitigation work in Bangladesh focused on preparation for the anticipated clean-up of a contaminated former ULAB smelter site, located adjacent to a boarding school, a madrasa, and a mosque at Labanchora, Khulna. This included community sensitization and education and carrying out a detailed site assessment in order to design and plan the remediation.

- # detailed site assessments (DSA) conducted: 1 (Labanchora, updated)

TSIP

Project: Building Capacity to Reduce Childhood Lead Poisoning in Bangladesh (Labanchora Remediation Activity)

- Updated DSA: October 2024
- 362 soil samples
- 48% of soil samples (n=175) >200 ppm, most w/i 100 m radius of smelter
- Within 100 m of smelter: mean=958 ppm; median=191 ppm; min=7 ppm; ma=43,100 max

GEORGIA

- # HBAs conducted: 2 (Poti, Guria)
- # homes assessed, HBA: 64 (Poti 50, Guria 14)

This year, Pure Earth's single project in Georgia was the Poti City and Guria region BLL and exposure source assessment which established current BLL prevalence and source data for Poti City and for the Guria region.

Project: Assessment of Blood Lead Levels and Lead Exposure Sources in Children in Poti City and Guria Region, Georgia

Project has 2 phases - pilot in Poti city and full-scale in Guria region.

Poti city

- 2024
- Georgia NCDC and UK Health Security Agency partners
- 50 households

Findings

- Dust, 140 samples. 46.5-53,928 $\mu\text{g}/\text{m}^2$. Geometric mean: 821 $\mu\text{g}/\text{m}^2$.
- Paint, 6 samples. 50.3-1254 ppm. Geometric mean: 255 ppm. 66.67% (n=4) >90 ppm
- Salt, 45 samples. 0.0-15. Geometric mean: 6.7 ppm. 97.8% (n=44) >reference value of 2 ppm
- Soil, 41 samples. 10.7-387.6 ppm. Geometric mean: 30.6 ppm. 43.9% (n=18) >32 ppm
- Spice, 130 samples. 0.04-12.5 ppm. Geometric mean: 0.25 ppm. 2.3% (n=3) >5 ppm

- Sugar, 45 samples. No sample had a detectable level of lead.

Lead levels in spices were lower than expected; only 2.3% (3/130) of samples exceeded the reference value (5 µg/kg) compared to 43% in a previous study. Only one type of spice, Kharcho mix, showed borderline significance with BLLs >3.5 µg/dL. 14.3% (20/140) of dust samples, 43.9% (18/41) of soil samples, and 66.7% (4/6) of paint samples exceeded their respective reference values. Household level data shows that soil is not the primary source of lead exposure in most children. Dust contributed most. Further work is required to investigate potential sources of the lead in dust in Poti, a major port city with significant industrial activities.

Guria region

- 2024
- Georgia NCDC and UK Health Security Agency partners
- 14 households

Of the 301 children tested in the Guria BLL survey, household assessments were carried out in the homes of the 14 children with BLLs ≥ the national action level of 5 µg/dL.

Initial Findings

From 14 households, 118 environmental samples were collected as follows: dust (n=40), spices (n=35), soil (n=22), salt (n=14), and paint (n=7). For dust, 7 samples (17.5%) exceeded the reference value of 431 µg/m². In soil, 8 samples (36.4%) exceeded the reference value of 32 mg/kg. Six of the 7 paint samples exceeded the reference value of 90 ppm, with concentrations ranging from 1.63 to 2028.7 ppm.

Lead concentration was below 0.1 ppm in 17 spice samples and below the Georgian reference value of 5 ppm in 17 more. Only one sample exceeded this reference value. As observed in Poti, the spice sample results indicated a marked reduction of lead concentration in spices compared to previously published values. Lead concentration was below 0.1 ppm in 17 spice samples and below the Georgian reference value of 5 ppm in 17 more. Only one sample exceeded this reference value.

GHANA

- **# community assessments conducted:** 1 (cookware)
- **# educational institutions assessed:** 13

In Ghana, the Lead Working Group conducted an assessment of cookware in educational institutions, testing both the cookware itself and food cooked in the same pots.

Community-Based Assessments

Project: Lead Cookware Working Group (Institutional Cookware Assessment Ghana Activity)

- January - December, 2024 (and ongoing)
- Objective: to determine extent of lead-containing aluminum cookware being used and potential lead concentrations in prepared food.
- Method: tested cookware and food prepared in the cookware with high lead concentrations; replaced cookware with high lead concentration.
- 13 institutions
- Cookware results
 - 62 cookware samples
 - 84% of samples <100 ppm
- Food results
 - 22 cooked food samples, 0 positive for lead
 - No lead contamination according local regulation
- Findings:
 - Although lead levels found in food complied with local regulations, the values in the lead-positive samples were above the US FDA threshold. Local labs' limits of detection may have obscured unsafe concentrations.
 - Lead containing cookware is more prevalent in educational institutions under government food programs.
 - Pilot Study inconclusive as NO correlation of lead in cookware and prepared foods was found. However, sample size study is small.

INDIA

- # HBAs conducted: 1 (Tamil Nadu)
- # homes assessed, HBA: 57 (Tamil Nadu)
- # market assessments conducted: 1 (Gujarat)
- # community assessments conducted: 1 (cookware)
- # educational institutions assessed: 10

In India, following completion of the Reducing Lead Exposure in Low- and Middle-Income Countries project's BLL survey, we launched the corresponding home-based assessments, which will be finalized in 2025. Earlier in

the year, we completed a market assessment, testing nearly 400 products from markets in 6 districts of Gujarat state. The Lead Working Group conducted an assessment of cookware and food in educational institutions in 3 countries including India, where it also conducted a supply chain analysis of metallic cookware.

Home-Based Assessments

Project: Reducing Lead Exposure in Low- and Middle-Income Countries (Tamil Nadu)

- September 2024 - *ongoing*
- As of December 2024, **57** homes in 2 districts assessed

Market-Based Assessments

Project: Gujarat Market Assessment

- 6 districts: Ahmednagar, Rajkot, Vadodara, Patan, Palanpur, and Bhuj.
- 389 product samples tested. 29% (n=113) had lead levels exceeding reference levels.
 - 95% metallic foodware, 77% of ceramic foodware, 51% of paint samples
 - Toys, cosmetics, plastic foodware, spices, staple dry foods rarely contained lead.

Community-Based Assessments

Project: Lead Cookware Working Group (Institutional Cookware Assessment and Supply Chain Analysis, Tamil Nadu, India Activity)

- Dates: January 2024 - ongoing
- Objective: to determine extent of lead-containing aluminum cookware being used and potential lead concentrations in prepared food.
- Method: tested cookware and food prepared in the cookware with high lead concentrations; replaced cookware with high lead concentrations; and conducted a regulatory review and supply chain analysis.
- Partners: Citizen Consumer, Civic Action Group (CAG)
- 10 institutions
- Cookware results
 - 58 cookware samples
 - 98% of samples >100 ppm
- Food results
 - 74 raw and cooked food samples, 3 positive for lead

- No lead contamination according to local regulation
- Findings:
 - While lead-containing cookware is more common in Ghana and India, some high concentrations found in Indonesia (e.g., 6,463 ppm) can't be ignored.
 - Although lead levels found in food complied with local regulations, the values in the lead-positive samples were above the US FDA threshold. Local labs' limits of detection may have obscured unsafe concentrations.
 - Lead containing cookware is more prevalent in educational institutions under government food programs.
 - Pilot Study is inconclusive, as NO correlation of lead in cookware and prepared foods was found. However, sample size study is small.
 - A supply chain analysis of lead in the production of aluminum cookware was conducted and results disseminated at a December 18, 2024 statewide workshop.

INDONESIA

- # community assessments conducted: 1 (cookware)
- # educational institutions assessed: 11

In Indonesia, the Lead Working Group conducted an assessment of cookware in educational institutions, testing both the cookware itself and food cooked in the same pots, and a supply chain analysis of metallic cookware.

Community-Based Assessments

Project: Lead Cookware Working Group (Institutional Cookware Assessment and Supply Chain Analysis, Indonesia Activity)

- Dates: January 2024 – ongoing
- **Objective:** to determine extent of lead-containing aluminum cookware being used and potential lead concentrations in prepared food.
- **Method:** tested cookware and food prepared in the cookware with high lead concentrations; replaced cookware with high lead concentrations; leaching tests of cookware; and a supply chain analysis (*ongoing*)
- **11 institutions**
- **Cookware results**
 - 45 cookware samples
 - 44% of samples % >100 ppm
- **Food results**
 - 32 cooked food samples, 0 positive for lead

- No lead contamination according to local regulation
- **Findings:**
 - While lead-containing cookware is more common in Ghana and India, some high concentrations found in Indonesia (e.g., 6,463 ppm) can't be ignored.
 - Leaching tests performed; results consistent with the RMSs. Confirmed that 100 ppm is a good reference value for screening. Lead NOT found in food cooked in lead-containing pots.
 - Although lead levels found in food complied with local regulations, the values in the lead-positive samples were above the US FDA threshold. Local labs' limits of detection may have obscured unsafe concentrations.
 - Lead containing cookware is more prevalent in educational institutions under government food programs.
 - Pilot Study is inconclusive, as NO correlation of lead in cookware and prepared foods was found. However, sample size study is small.

KYRGYZSTAN

- # HBAs conducted: 1
- # homes assessed, HBA: 72

Kyrgyzstan was the first of 5 countries in the Strengthening Health Systems to Reduce Lead Exposure project to complete the first round of its BLL testing. This activity marked Kyrgyzstan's first-ever national BLL survey. The home-based assessments kicked off in Q4 and will be completed in 2025.

Home-Based Assessments

Project: Strengthening Health Systems to Reduce Lead Exposure

- November 2024 - *ongoing*
- As of December 2024, 72 homes assessed

MEXICO

- # environmental assessments conducted (non-HBA): 55
- # workshops assessed, non-HBA: 55

Pure Earth's work in Mexico focuses on the country's main source of lead poisoning, the glaze used in its artisanal pottery. Through the Circle of Women, Barro Aprobado, and Communities of Knowledge projects, we tested pottery samples; assessed potters' workshops for lead; upgraded kilns; and trained potters to use lead-free glazes and upgraded kilns. The Mexico office also continued to support [CREA](#), a [specialized resources website for potters](#) who want to transition to lead-free pottery.

Environmental Assessments

Project: Lead-free Pottery Program

- **55 workshops assessed in 10 communities**

- Acteopan: 8 workshops, 70 measurements
- Cohuecan: 5 workshops, 40 measurements
- Atzitzintla: 2 workshops, 8 measurements
- Tlayacapan: 3 workshops, 44 measurements
- Cuapexco: 6 workshops, 13 measurements
- Ocotitlán: 4 workshops, 37 measurements
- San Pablo del Monte: 7 workshops, 66 measurements
- Españita: 5 workshops, 52 measurement
- Tenexyecac: 8 workshops, 78 measurements
- Tzompantepec: 7 workshops, 66 measurements

Total: 474 samples measured, 39.24% >200 ppm; 30.8% >400 ppm

- **Pottery samples assessed**

- 92 pieces, San Marcos Acteopan, average 94.11 ppm
- 92 pieces, San Bartolo Cohuecan, average of 71.94 ppm
- 6 pieces, Santa María Atzitzintla, average of 126.4 ppm
- 55 pieces, Tlayacapan, average of 557.24 ppm
- 32 pieces, San Felipe Cuapexco, average of 21.25 ppm
- 23 pieces, San Jerónimo Ocotitlán, average of 232.4 ppm
- 25 pieces, San Pablo del Monte, average of 182.47 ppm
- 18 pieces, Españita, average of 109.50 ppm
- 24 pieces, Tenexyecac, average of 97.89 ppm
- 16 pieces, Tzompantepec, average of 87.37 ppm

Total: 383 pieces, 33% >100 ppm

NAMIBIA

- # market assessments conducted: 1

Project: Strategic Policy Fund - Study of Lead Paint in Windhoek

The Strategic Policy Fund was established to allow Pure Earth and other lead-focused groups to quickly seize opportunities to help policy-makers use the best available data and expertise in crafting solutions to lead pollution/poisoning. The fund supports activities that advance laws and policies that prevent pollution and the generation of data that does the same.

In Namibia, in September 2024, a researcher carried out an assessment of 20 paint samples from 7 companies (1 Namibian, 6 South African).

- **Findings:**
 - 70% (14/20) samples (including the 3 from Namibia) <limit of detection
 - 3 >limit of detection but <90 ppm
 - 3 >90 ppm

All 6 samples' >the limit of detection were imported from South Africa, where new regulations limiting lead content in paint to 90 ppm, to be effective from May 17, 2025, have just been enacted.

New Technical Tools and Resources for quality data collection

Pure Earth is a trusted source for technical guidance on mitigating and preventing exposure to pollution. In 2024, we added three new protocols around source assessments, drafted by our team of technical experts, to our publicly available resources library.

- ***Protocol for Testing Metal Cookware for Lead and Other Toxic Metals.*** October 2024
- ***Metal Cookware Leaching Test Protocol Document.*** October 2024
- ***Food Chain Analysis for Lead and Mercury Protocol.*** October 2024

OUTCOME 4: RISK MITIGATION ACTIVITIES IMPLEMENTED AND RESULTS

EGYPT

Project: Strategic Policy Fund - Design & Implementation of BLL and Source Analysis in Egypt

The Strategic Policy Fund was established to allow Pure Earth and other lead-focused groups to quickly seize opportunities to help policy-makers use the best available data and expertise in crafting solutions to lead

pollution/poisoning. The fund supports activities that advance laws and policies that prevent pollution and that generate data to support the same.

In Egypt, with implementing partner, [CEOSS](#), Pure Earth carried out awareness raising and community outreach and education activities on June 25-28, 2024. Pure Earth trained 17 CEOSS staff on lead exposure, general information about the dangers of lead, potential sources of lead, Egypt-specific information on lead, and Pure Earth's 5-step approach.

INDIA

Project: Strategic Policy Fund - India Lead Consortium

The Strategic Policy Fund was established to allow Pure Earth and other lead-focused groups to quickly seize opportunities to help policy-makers use the best available data and expertise in crafting solutions to lead pollution/poisoning. The fund supports activities that advance laws and policies that prevent pollution and that generate data to support the same.

In India, Pure Earth supported the India Lead Consortium, whose member organizations already work on environmental issues, to bring government attention to the lead poisoning crisis.

INDONESIA

Project: Protecting Every Child's Potential

In line with Indonesia's Lead Working Group's aim of mitigating the impact of lead exposure and at the request of the Government of Indonesia, Pure Earth carried out several activities to prepare for future contaminated site remediations:

- A Feasibility Study Report and Detailed Engineering Design and Environmental Remediation Plan for lead contaminated sites in **Cinangka and Cinangneng Villages** were submitted to the Environmental Agency of Bogor Regency on February 15, 2024 and to the Ministry of Environment and Forestry on March 22, 2024.
- A Feasibility Study Report and Detailed Engineering Design and Environmental Remediation Plan of lead contaminated sites in **Pesarean Village** were submitted to the Environmental Agency of Tegal Regency on February 15, 2024 and the Ministry of Environment and Forestry on April 18, 2024.
- October 14-16, conducted scoping for a remediation in **PIK Kebasen** with the EPA of Tegal. Report sent to the Environmental Agency of Tegal in November.

KYRGYZSTAN

Kyrgyzstan was the first of 5 countries in the Strengthening Health Systems to Reduce Lead Exposure project to complete the first round of its BLL testing. This activity marked Kyrgyzstan's first-ever national BLL survey and

included awareness raising and community education activities which we carried out with implementing partner, the Republican Center for Health Promotion.

Project: Strengthening Health Systems to Reduce Lead Exposure

- December 2024
- Partner: Republican Center for Health Promotion
- Towns of Kara-Suu, Kara-Balta, Kemin, Nookat, and the villages of Ak-Tyuz and Chok-Tal
- Inform sessions and seminars on lead poisoning prevention targeting local government officials, public organizations, medical workers from Family Medicine Centers, General Practice Centers, Family Doctor Groups, Feldsher-Obstetric Stations, teachers, students, and parents.
 - Parents – 1,350
 - Teachers – 546
 - Medical workers – 437
 - Neighborhood committees – 56
 - Rural/public health committees – 128
- Video distribution:
 - Teachers, educators – 527
 - Parents – 2,527
 - Rural health committees, Public health committees in cities – 136
 - Healthcare workers – 333

MEXICO

Pure Earth’s work in Mexico focuses on the country’s main source of lead poisoning, the glaze used in its artisanal pottery. Risk mitigation activities included upgrading kilns to reach the higher temperatures needed for lead-free glaze, training artisanal potters on the use of lead-free glazes and improved kilns, financial literacy, and marketing. The Mexico office also continued to support [CREA](#), a [specialized resources website for potters](#) who want to transition to lead-free pottery.

Project: Lead-free Pottery Program

- 3 kilns built: a) 2 financed by Association of Spouses of Diplomats. 2 direct beneficiary families and 10 indirect beneficiary artisans; b) 1 in Poblado Monte Grande, Jonuta, Tabasco supported by the Institute for Artisanal Promotion and the Kaj Buch Foundation. 25 artisan beneficiaries.
- 113 potters trained in 4 workshops through Knowledge Communities Program

- 221 artisans trained in 24 community training sessions

SENEGAL

Project: Bringing Pollution Solutions Beyond the Tipping Point

Through a Pure Earth sub-grant to GAHP, from June 2023 - January 2024, the Oak Foundation supported *Jeunes Volontaires pour l'Environnement*, a local NGO, to carry out an awareness campaign, “**Reducing the Impact of Lead on Children’s Health,**” in Ngange Diaw, Thiaroye Sur Mer and Mbeubeuss, Malika, two neighborhoods of Dakar included in a recent BLL study. Activities included workshops on lead with local authorities; community meetings; home sensibilization visits; radio campaigns; a slam poetry competition; and a January 27, 2024 closing ceremony.

On February 15, 2024, GAHP hosted a [webinar](#), “**Addressing Lead Pollution in Senegal: Insights from Research and Community Engagement,**” to share insights from a BLL study conducted in 2021-2022.

UGANDA

Project: Strategic Policy Fund - Global Alliance on Health and Pollution

The Strategic Policy Fund was established to allow Pure Earth and other lead-focused groups to quickly seize opportunities to help policy-makers use the best available data and expertise in crafting solutions to lead pollution/poisoning. The fund supports activities that advance laws and policies that prevent pollution and that generate data to support the same.

Through a Pure Earth Strategic Policy Fund grant, from December 2023 - November 2024, GAHP supported awareness-raising in Uganda among schoolchildren, teachers, parents, and communities, and advocacy for policy change to reduce lead exposure. GAHP, with the **National Environment Management Authority** and other stakeholders, supported the formation of a Lead Working Group to recommend policy changes and advance lead mitigation interventions in Uganda.

ZAMBIA

Project: Strategic Policy Fund

The Strategic Policy Fund was established to allow Pure Earth and other lead-focused groups to quickly seize opportunities to help policy-makers use the best available data and expertise in crafting solutions to lead pollution/poisoning. The fund supports activities that advance laws and policies that prevent pollution and that generate data to support the same.

In Zambia, Pure Earth supported the advancement of a redevelopment / strategic plan for the future of Kabwe, a town with severe lead pollution, through a proposal to the World Bank for a feasibility study of green and sustainable solutions.

OUTCOME 5: DEVELOPMENTS IN PURE EARTH'S ORGANIZATIONAL STRUCTURE

For 2024, this outcome focuses on changes to Pure Earth's structure in terms of its national registration. In India, Pure Earth initiated changing its status from that of a non-profit to a for profit entity. In Peru, Pure Earth moved forward with additional steps towards full registration, receiving its RUC (Single Taxpayer Registry), required of all legal entities that carry out economic activities, in July.

India	In Q4 2024, initiated registration as a for profit entity, PE Lead India Private Limited.
Peru	Jan 2024: Officially registered with the Public Registry. Registration with INEX & APCI has been initiated. July 2024: "Achieved registration in the APCI " <i>Resolucion Directoral No 147-2024/APCI-DOC.</i> " Registered with SUNAT and received RUC.

ANNEX A: SIGNALS OF SUPPORT BY U.S. GOVERNMENT, MULTILATERALS, GLOBAL INSTITUTIONS

The USG can help LMIC governments take action by: raising lead poisoning as an important development issue, helping LMICS create and implement effective policies, and ensuring its bilateral development programs support lead poisoning prevention. In 2024, Pure Earth engaged with the White House, Council on Environmental Quality, US EPA, USAID, US DOS, US FDA and others.

USAID

- On January 17, 2024 at the World Economic Forum, **USAID Administrator Samantha Power announced that the USG is charting a path Towards a Lead Free Future** in LMICs, **committing \$4M to government-led interventions in India and South Africa** and called work leaders to action to build capacity for testing, tracking, and identifying and eliminating sources of lead. The USG will prioritize consumer products, starting with paint and spices. USAID is the first bilateral donor agency to join the Global Alliance to Eliminate Lead Paint. **USAID has elevated lead exposure and mitigation as a critical Agency priority and as one of the top three 2024 global health priorities** and hired a **Lead Coordinator**, Ms. Nida Parks. If the global development community follows the USG's lead, this could be a turning point.
- In January 2024, **USAID Assistant Administrator for Global Health, Dr. Atul Gawande, visited the Philippines, meeting with the National Poison Management and Control Center and Pure Earth** to discuss potential solutions for childhood lead poisoning, including strategies to monitor lead in blood, consumer products, and the environment; to identify and address exposure sources; and to identify the most vulnerable groups.
- In February, 2024, USAID, in recognition of “the magnitude of this neglected problem,” launched recruitment of a **Senior Lead Mitigation Advisor** to build on the USG and development partner efforts to address the impacts of lead exposure at national and global levels.
- On March 26, 2024 **USAID Administrator Samantha Power and EPA Administrator Michael S. Regan** signed a **Memorandum of Understanding**, formalizing a partnership to tackle the challenges of climate change, air and water pollution, lead poisoning, recycling of plastics and electronic waste, and encouraging responsible management of critical minerals.
- On May 29, 2024, Pure Earth Philippines Country Director, Larah Ibanez advocated for solutions to lead exposure at the **77th World Health Assembly** in Geneva. Ms. Ibanez and Pure Earth board member Howard Hu, MD, MPH, ScD, called for better health surveillance and data collection at a USAID and UNICEF-hosted side event, **“Towards a Future Free from Lead Exposure: A Ministerial Dialogue on Preventing Maternal and Child Exposure to Toxic Lead.”**

- On September 23, 2004, at the 79th UN General Assembly, UNICEF, USAID, WHO, and 3 heads of state launched the **Partnership for Lead-Free Future**. See below, “Global” section, for more details.
- At the October 13-15 World Health Summit, USAID convened a VIP lunch to discuss lead issues.

USAID & UNICEF

- On September 23, 2004, at the 79th UN General Assembly, UNICEF, USAID, WHO, and 3 heads of state launched the **Partnership for Lead-Free Future**. The initiative unites 26 countries and 38 international partners, including Pure Earth, to end childhood lead poisoning in LMICs by 2040. Speakers included UNICEF Executive Director Catherine Russell; USAID Administrator Samantha Power, First Lady of the U.S. Dr. Jill Biden; UNEP Executive Director Inger Andersen, World Bank President Ajay Banga, Open Philanthropy CEO Alexander Berger, and WHO Director-General Dr. Tedros Adhamom Ghebreyesus. The event included a screening of a video showcasing Pure Earth’s work in Bangladesh, Transforming Battery Recycling: Protecting Future Generations.

US EPA

- **In partnership with UNICEF, developed a “toolkit”** composed of 12 guidance documents aimed at guiding stakeholders in the implementation of various lead-related activities:
- On January 17, 2024, the **EPA announced the lowering of its recommended screening level (from 400 to 200 ppm) and strengthening guidance for investigating and remediating lead-contaminated soil in residential areas**. As a result, the EPA expects to investigate more properties for potential cleanup. This action “delivers on the Biden-Harris Administration’s commitment to protect communities from lead poisoning, particularly disadvantaged communities facing multiple sources of lead exposure.”
- In February, released the **Integrated Science Assessment (ISA) for Lead**, which, among many other things, found that “given the consistent positive associations observed across various populations and based on multiple outcome assessment approaches at relevant lead exposure levels, there is sufficient evidence to conclude that there is likely to be a causal relationship between lead exposure and conduct disorders, aggression, and criminal behavior.” (p. IS-31)
- Participated in March 26, 2024 Pure Earth webinar, **“US EPA’s International Role in Addressing Lead Exposure, and Ghana’s Experience,”** with Ghana EPA and Pure Earth Ghana (see below).
- In November, 2024, the EPA and the World Bank co-led an expert webinar on lead pollution and exposure in the G20 along with colleagues from the G20 environment, development, and health tracks. 100+ participants shared best practices to prevent and reduce lead pollution in the G20.

US FDA

- On December 12, 2024, **FDA issued a letter to retailers and distributors** of cookware products informing them that certain imported aluminum, brass, and aluminum alloy cookware may leach lead into food, and that this cookware shouldn’t be distributed or sold in the U.S. The FDA became aware of

the issue via collaboration with the Seattle and King County Public Health Department on imported cookware testing and associated high BLLs in resettled refugee populations.

US CDC

- In August 2024, published **“Lead-Free Communities Toolkit: Resources to Support Communities on the Road to Lead Hazard Elimination.”**

CONGRESS

- On April 18, 2024, following Pure Earth’s 2023 briefings on the scale and impact of global lead poisoning and risks to U.S. interests and children, Senator Ben Cardin, Chair of the Senate Foreign Relations Committee, **introduced a resolution to tackle global lead exposure**, calling on the U.S. to invest in ending toxic lead exposure globally.
- On July 10, 2024, Congressmen Jason Crow and John James of the House Foreign Affairs Committee’s Subcommittee on Africa, **introduced a bipartisan resolution to address elevated BLLs in children globally and push for lead exposure prevention**. Pure Earth helped draft the resolution, which highlights the dangers of international lead exposure and the need for greater U.S. leadership.

PRESIDENT’S TASK FORCE ON ENVIRONMENTAL HEALTH RISKS AND SAFETY RISKS TO CHILDREN

- In February 2024, the Task Force launched **“Priority Activities 2024-2028.”** a strategy outlining specific long- and short-term government commitments including: identify and leverage existing federal efforts (e.g., technical expertise, lessons learned) to build LMIC capacity to address lead; expand community engagement and coordination on communications; expand collaborations on demonstration projects using data mapping to identify hotspots and build capacity. EPA’s Office of International Affairs chairs the International Lead Exposure Working Group, under the Lead Subcommittee of this Task Force, to coordinate USG engagement on lead poisoning globally.

GLOBAL INSTITUTIONS

These efforts draw high-level political support for tackling lead pollution at the global level and help build momentum and future action.

USAID & UNICEF

- On September 23, 2004, at the 79th UN General Assembly, UNICEF, USAID, WHO, and 3 heads of state **launched the Partnership for Lead-Free Future**. The initiative unites 26 countries and 38 international partners, including Pure Earth, to end childhood lead poisoning in LMICs by 2040. Speakers included UNICEF Executive Director Catherine Russell; USAID Administrator Samantha Power, First Lady of the U.S. Dr. Jill Biden; UNEP Executive Director Inger Andersen, World Bank President Ajay Banga, Open Philanthropy CEO Alexander Berger, and WHO Director-General Dr.

Tedros Adhamom Ghebreyesus. The event included a screening of a video showcasing Pure Earth's work in Bangladesh, Transforming Battery Recycling: Protecting Future Generations.

UNICEF

- Launched Healthy Environments Foster Healthy Children, Children's Environmental Health Collaborative and Healthy Tomorrows video series on children's environmental health issues including lead exposure.
- In February 2024, UNICEF, via Children's Environmental Health Collaborative, published "Assessing Environmental Lead Exposures in Resource-Constrained Settings." Several Pure Earth staff contributed.
- With the WHO, UNICEF launched "Children's Environmental Health," an online course released on March 13, 2024.

G7, G20, AND T20 ENGAGEMENT.

- On November 5, 2024, hosted by the World Bank, the G20 (US EPA, EU, Germany, South Africa, and Brazil) presented an "Inter-Sectoral Expert Webinar on Lead Pollution and Exposure in G20 Countries," raising awareness about lead for >100 participants.

THINK TANKS

- **Center for Global Development (CGD)**. CGD enjoys considerable credibility as a global think tank, with influence over a large variety of stakeholders.
 - On April 15, 2024, the **Centre for Global Development** hosted "Accelerating the International Response Towards a Lead-Free Future," a talk in which **Dr. Atul Gawande, Assistant Administrator for Global Health, USAID** shared his perspectives and details of USAID's commitment, followed by a panel discussion with Dr. Indu Bhusan, Chair, **India Working Group on Lead Poisoning**; Dr. Value Hickey, Global Director, Environment, Natural Resources and Blue Economy, World Bank; Emily Oehisen, Managing Director, Global Health and Wellbeing, Open Philanthropy; and Scott Morris, VP for East and Southeast Asia, and the Pacific, Asian Development Bank.

THE BASEL CONVENTION

- From November 18-22, 2024, at the **Meeting of the Small Intersessional Working Group on Waste Batteries** in Geneva, Switzerland, Pure Earth's Executive Director, Drew McCartor, and Associate Researcher, Chris Kinally, presented Pure Earth's experience and views in the latest negotiations shaping revisions of the **Basel Convention Technical Guidelines for Environmentally Sound Management of ULABs**. Outcome documents were submitted for consideration by and will contribute

to discussion during the meeting of the 17th Conference of the Parties to the Basel Convention, April 28-May 9, 2025.

THE WORLD HEALTH ORGANIZATION

- With UNICEF, launched “Children’s Environmental Health,” an online course released on March 13, 2024.
- In May 2024, the **Pan American Health Organization (PAHO)** and Pure Earth Colombia signed an MoU to coordinate actions to increase public awareness of heavy metal exposure, especially lead and mercury, and to jointly promote risk mitigation activities.

ANNEX B: PROJECTS ACTIVE IN 2024

1	Reducing Lead Exposure in LMICs	Philippines, Bangladesh, India
2	Strengthening Health Systems to Reduce Lead Exposure	Kyrgyzstan, India, Indonesia, Colombia, Peru
3	Bringing Pollution Solutions Beyond the Tipping Point	Senegal, Indonesia, India
4	Identification of Lead Poisoning Sources in Gujarat, India	India
5	Development of Business Models & Policy Interventions to Reduce Informal ULAB Recycling in Bangladesh	Bangladesh
6	Philippines BLL Study Analysis - Mitigating Lead Exposure in the Philippines: Integrating Lead Detection Into National and Local Health Systems	Philippines
7	Lead Cookware Working Group . (Leaching tests, institutional cookware assessment and value chain analyses)	India, Ghana, Indonesia
8	Building Capacity to Reduce Childhood Lead Poisoning in Bangladesh	Bangladesh
9	Contamination Assessment of Mining Sites in Ghana	Ghana
10	Educating US Federal Agencies on Global Lead Poisoning	U.S.
11	Virtual Environmental Health Training	Global
12	New lead detection methods for soil	India

13	<u>Lead-free Pottery Program (Circle of Women, Barro Aprobado, Learning Communities)</u>	Mexico
14	<u>Protecting Every Child's Potential</u>	Bangladesh, Georgia, Ghana, Indonesia, Mexico
15	<u>Strategic Policy Fund - India Lead Consortium</u>	India
16	Strategic Policy Fund – Kabwe Redevelopment Plan Follow-Up	Zambia
17	<u>Mitigating Lead Exposure in Low- and Middle-Income Countries</u>	India, Colombia, Egypt, Ghana, Indonesia, Peru, Philippines
18	<u>Strategic Policy Fund – Global Alliance on Health and Pollution</u>	Uganda
19	<u>Strategic Policy Fund – Study of Lead Paint in Windhoek</u>	Namibia
20	<u>Identification & Establishment of Spices Supply-Chains in Northern India</u>	India
21	<u>CREA Website for Potters</u>	Mexico
22	<u>Coalition Against Lead Pollution</u>	Ghana
23	<u>Bremang Lead Remediation Project</u>	Ghana
24	<u>Pilot Study to Assess Effectiveness and Feasibility of Replacing Cookware and Cosmetics</u>	Ghana
25	<u>Assessment of Blood Lead Levels and Lead Exposure Sources in Children in Poti City and Guria Region, Georgia</u>	Georgia

26	<u>Gujarat Rapid Market Survey</u>	India
27	<u>Strategic Policy Fund – Design & Implementation of BLL and Source Analysis in Egypt</u>	Egypt