

Consultation Report

Towards a coordinated, multi-sectoral lead management approach in low- and middle-income countries: Consultations in Africa region (Part II)

**Wednesday, 20 November 2024
2:00 – 4:00 p.m. CET (3:00 p.m. – 5:00 p.m. Nairobi Time)**

1. Introduction

The United Nations Environment Programme (UNEP), with the support of the United States Environmental Protection Agency (US EPA), facilitated the second of two consultations on lead sources and management in African countries on 20 November 2024, following the first consultation held on 10 July 2024. The second consultation was conducted with simultaneous English and French interpretation.

This initiative comes at a crucial juncture, as previous international efforts around lead exposure reduction primarily targeted single sources of lead contamination, such as leaded petrol and paint. However, a growing body of research highlights that there are a wide variety of sources impacting lead exposure, particularly in low- and middle-income countries (LMICs), which encompass various industries and consumer products. Recognizing that policy and regulatory approaches to addressing sources of lead exposure may vary, adopting a comprehensive look at lead management policies in LMICs across sectors holds immense promise. By embracing a holistic perspective, it becomes feasible to discern the primary drivers of lead exposure with greater clarity, increase awareness of policymakers, and pave the way for the development of cohesive, enduring mitigation strategies, action plans, and other relevant instruments. Moreover, addressing lead management on a multi-sectoral basis empowers stakeholders to forge vital connections between lead mitigation efforts and broader development objectives or societal priorities, thereby enhancing the mobilization of resources towards this critical cause. Through promoting collaborative action and a multifaceted approach, these consultations aim to catalyze impactful change in safeguarding public health and environmental well-being across the African continent.

The aim of these consultations was to explore the feasibility of a coordinated, multi-sectoral approach by LMIC national governments to address sources of lead exposure.

The objectives of the consultations included:

- To facilitate the exchange of information among African countries on existing lead management activities and needs;
- To understand sources of lead exposure and applicable regulations at the country or regional level;
- To present examples of coordinated multi-sectoral lead management approaches, including country-level efforts, the UNICEF Lead Toolkit, the US Federal Lead Action Plan and the US EPA Lead Strategy and US EPA Local Lead Action Plan Guide;

- To discuss current barriers and opportunities for lead exposure reduction action, including coordinated and multi-sectoral lead management approaches at the national level among African countries.

The second consultation included two introductory presentations, two panel discussions, and two Question and Answer periods. The consultation was moderated by Mr. Alexander Mangwiro, Programme Management Officer, Regional Coordinator, Chemicals, Waste Management & Air Quality Sub-Programme, UNEP Africa Office. Introductory presentations were given by the US EPA and the Poison Control Center of Senegal. During the first panel session, government representatives from Burkina Faso and Madagascar shared lead management approaches and challenges in their countries. The second panel provided representatives from international organizations and civil society an opportunity to share their experiences of addressing lead exposure sources and identifying areas for future work. This panel included representatives from UNICEF, the World Health Organization (WHO), the Economic Community of West African States (ECOWAS), and the Global Alliance on Health and Pollution (GAHP). All presentation slides are included in the **Appendix**.

The representatives on the panel discussing country activities were provided with the following prompts prior to the consultation:

- Country experience: What lead assessment or prioritization efforts have been made in your country? Please describe the specific actions taken.
- National planning: Please provide bullet points on your country's current needs and planning around lead management.
 - If applicable, how could the existing regulatory framework around lead and/or lead exposure sources in your country be expanded or changed to support effective lead management?
 - What tools or structures do you feel would best support source reduction, information sharing and coordination among stakeholders in your country?
- Regional coordination: If possible, please provide bullet points on what lead management activities are envisioned for the future and how regional or international coordination could support this work, such as:
 - What tools or structures do you feel would best support information sharing and coordination among stakeholders across the region?

The participants on the panel for international organizations and civil society were provided with the following prompt prior to the consultation:

- How can the international community support African countries in developing and implementing comprehensive and multi-sectoral lead management strategies that align with broader development objectives and priorities?

2. Welcome Session

A welcome message was delivered by **Ms. Mihaela Paun, Programme Management Officer**, on behalf of Mr. Ludovic Bernaudat, Head of Knowledge and Risk Unit, Chemicals and Health Branch of the Industry and Economy Division, UNEP.

Ms. Paun welcomed panelists and participants and expressed her gratitude for their contribution to this initiative. She also thanked the US EPA for their support in organizing this consultation and the first iteration for English-speaking African countries, held in July. Ms. Paun noted that this initiative comes at a crucial time, as past international efforts to reduce lead exposure have mainly focused on single sources of contamination like leaded petrol and paint, but emerging research indicates there is a wide variety of lead exposure sources, especially in low and middle-income countries. These sources span various industries and consumer products, thus requiring diverse regulatory mechanisms and a comprehensive examination of lead management.

Ms. Paun acknowledged the significant progress made in preventing lead exposure through the phase-out of leaded fuel, completed in 2021, following a twenty-year campaign led by UNEP, as well as the [Global Alliance to Eliminate Lead Paint](#), led by UNEP and WHO and with guidance from the US EPA, which has achieved 50% progress with 94 countries implementing legally binding controls on lead in paint. However, other lead exposure pathways, such as lead in batteries, spices, cosmetics, and pottery, pose ongoing risks.

Ms. Paun noted that adopting a holistic perspective facilitates the clear identification of primary lead exposure drivers and empowers stakeholders to link lead mitigation efforts with broader development objectives and societal priorities, supporting the enhancement of resource mobilization. The consultation aims to promote collaborative action through a multi-faceted approach and trigger continued communication and information exchange on this topic at the regional level.

Mr. Patrick Huber, Senior Advisor for International Organizations and Policy, Office of International Affairs, Office of International and Tribal Affairs, US EPA, delivered welcoming remarks from the US EPA **on behalf of Mr. Mark Kasman, Director of the Office of International Affairs.** Mr. Huber thanked UNEP for hosting the consultations and for their leadership on lead source reduction, especially lead in gasoline and paint. Mr. Huber noted the need for action on lead exposure, as there is no known safe level of exposure to lead, especially for children. He noted that exposure to lead can impair cognitive development and cause behavioral and learning difficulties. Lead exposure may account for up to 21% of the educational gap between high- and low-income countries. Lead also causes adverse health effects in adults and is estimated to be responsible for 1.6 million deaths annually from cardiovascular disease; some mortality estimates are even higher. In Africa, the economic impacts are staggering. The impacts of lead exposure on IQ loss and cardiovascular disease are estimated to equal 8.9% of the GDP in Sub-Saharan Africa, which is higher than the worldwide average of 6.9% of global GDP.

Mr. Huber stated that one way the US EPA is looking to help reduce these impacts is by supporting UNEP on lead paint elimination and waste lead-acid battery management. The US EPA and UNEP will be developing a model regulation on the environmentally sound management of waste lead-acid batteries. In addition, this consultation will provide more information on ways US EPA can help African countries that are seeking to move forward with lead management, including waste lead-acid batteries.

Mr. Huber also indicated that during the first consultation with African governments in July, the need for a large-scale view of lead exposure and management in countries was discussed, as well as the need to understand what is happening across different authorities in the government

and within industry. Discussions also covered lead sources such as electronic waste, lead-acid batteries, and lead paint. The consultation demonstrated the potential to use the expertise built through managing these sources to inform approaches to other sectors. Mr. Huber noted that the outcomes of this consultation will help inform future discussions, including the new Partnership for a Lead-Free Future (PLF), of which the US EPA is a partner.

Mr. Mangwiro provided an overview of the agenda and objectives of the consultation.

3. Setting the Scene

Professor Mamadou Fall, Director of the Poison Control Center of Senegal, within the Ministry of Health and Social Action, provided an overview of Senegal's multi-sectoral approach to lead management. Prof. Fall reported that in 2008, a major pollution incident occurred in a neighborhood of Dakar, Senegal, where 18 children died due to lead contamination from a lead-acid battery recycling site. A decontamination effort in the affected neighborhood was initiated, and affected children were treated. Since then, there has been ongoing monitoring of lead levels in that community, as well as other sites.

To address the issue of lead in paints, Senegal has been working to develop national standards to limit lead content. This process involved collaboration between the Senegalese Association for Standardization, the Ministries of Environment and Commerce, as well as manufacturers and importers. The standard has been brought in line with the ECOWAS regional norm of 90 ppm. Efforts are ongoing to finalize an inter-ministerial decree to fully implement the ECOWAS regulation in Senegal.

In parallel with the regulatory discussions, sampling of paints in local markets was conducted with the support of the Lead Exposure Elimination Project (LEEP). The study revealed some products with high lead levels, and the results were shared with the relevant government agencies. The manufacturers were discreetly informed and encouraged to engage with the Poison Control Center and to work with LEEP to transition to lead-free paints, even without a mandatory regulation in place yet. The manufacturers have responded favorably to this approach. As the lead paint regulation is being finalized, paints on the market will continue to be monitored. In addition, to better understand other sources of lead exposure, contaminated sites are also being monitored.

Prof. Fall's university laboratory is conducting surveillance of lead exposure in the Senegalese population, particularly in children and women of childbearing age, as well as monitoring lead levels in food staples like cereals.

To facilitate regional coordination, Prof. Fall suggested convening a workshop to bolster implementation of the ECOWAS lead paint regulation across member states, and to coordinate on trans-boundary trade. He also highlighted the need for improved management of lead-acid battery recycling, and improved coordination among the national ministries of environment, health, commerce and industry.

Ms. Angela Bandemehr, Senior International Environmental Protection Specialist, Office of International Affairs, Office of International and Tribal Affairs, US EPA, provided an overview of

the United States' experience with lead management and how the country's approach could be a model for other contexts.

The US has reduced blood lead levels by 95% since 1970, and Ms. Bandemehr shared an overview of the government-wide mechanisms and strategies the US has used to achieve this and potential applications in LMICs. The US has a presidential-level task force on children's environmental health, comprised of 17 federal departments and offices. This task force is co-chaired by the US EPA and the health authority, with a subcommittee on lead issues led by three agencies - the EPA, Department of Health and Human Services, and Department of Housing and Urban Development. The task force developed a comprehensive [Federal Lead Action Plan](#).

The Federal Lead Action Plan has four main goals. The first is Source Reduction; in the US, target sources include lead-based paint, drinking water, soil, air, occupational sources, food, cosmetics and consumer products. The second is Surveillance & Monitoring, identifying communities and children with lead exposure. These first two goals are evaluated for impact, which informs actions moving forward. The other two goals, Communications and Research & Data, are overarching and can be carried out across all activities. These approaches are implemented at the national, local and whole-of-government level. The US [EPA lead strategy](#) mirrors the goals of the Federal Lead Action Plan.

Examples of specific actions taken under the Federal Lead Action Plan include EPA's work on updating hazard standards for lead in dust, cleaning up soil contamination in communities, providing low-cost training, and conducting mapping to identify lead exposure hotspots. Other agencies have also taken action, including amending standards and guidance and lowering the blood lead reference value from 5 to 3.5 micrograms per deciliter. In support of the communications objective, all agencies participate in the International Lead Poisoning Prevention Week to raise awareness. Regarding research, the Department of Housing and Urban Development conducted a survey to determine progress on lead paint risk reduction and lead in water and service lines. The US EPA also developed a [Local Lead Action Plan Guide](#), which can help communities plan their approach, and could be adapted to the country-level.

In addition to domestic efforts, the US has developed an international lead working group chaired by the US EPA and the US Agency for International Development to collect and share best practices. The US EPA is working with UNICEF to develop a lead toolkit that can be applied in global LMIC country contexts, engaging with UNEP on initiatives related to lead paint and lead-acid batteries, and hosting discussions in high-level fora like the G7 and G20.

Ms. Bandemehr shared how the US approach might inform discussions in the context of LMICs. She noted the importance of an overarching coordination function (like the US presidential task force) to bring agencies together. She recommended looking in parallel at source reduction (regulation and policies), while also building capacity for surveillance and source assessment. Research activities to collect data can be used to prioritize sources and assess progress. An evaluation phase is important to assess impact and adjust activities as needed. Communication, outreach and education can be carried out throughout this process at the national and community level. Ms. Bandemehr highlighted how the upcoming UNICEF lead toolkit modules align with each of these steps.

4. Panel discussion – Country Representatives

Mr. Mangwiro introduced the first of two panel discussions, where two country representatives shared their experiences with lead management approaches and challenges at the country level in the Africa region.

The panelists during this session were asked to reflect on:

- their country's experience with lead management to date
- their country's current needs and planning around lead management
- and what lead management activities are envisioned for the future and how regional or international coordination could support this work

Mr. Rila Albani Rakotomanana, Director of Pollution and Waste Management, Ministry of the Environment and Sustainable Development in Madagascar, and the Focal Point of the Basel Convention, presented on behalf of Madagascar. Mr. Rakotomanana noted that lead has been identified in Madagascar as a highly hazardous chemical by the UNEP [ChemObs project](#), which he coordinates for Madagascar. Specific ministerial entities have taken action to coordinate the response to chemical pollution, including the creation of an inter-ministerial structure and engagement with research entities and the private sector.

Lead-contaminated areas have been mapped in the capital city, in collaboration with the National Center for Environmental Research. They have identified areas in neighborhoods, as well as several water tables and waste disposal areas, contaminated with lead and other heavy metals. Mr. Rakotomanana reported that three sources of lead exposure have been identified in Madagascar: paint, the manufacture of traditional cooking pots, and batteries.

Regarding lead in paint, paint producers, including informal and formal, were identified and reformulation guidance was provided to small producers with the support of LEEP. Mr. Rakotomanana noted the importance of data in understanding the lead content in paint in the country and, as was done in Senegal, they carried out sampling and analysis. They identified paints with lead concentrations above 10,000 ppm, which assisted with advocacy to the government for a regulatory framework. The development of a national standard began, as well as the creation of a technical committee for implementation. The national standard, which defines permissible limits on lead content was validated in 2022, and they are in the course of finalizing a national decree to make the limit mandatory.

Regarding national planning, they will set up a regulatory framework restricting lead more broadly and including other sources such as batteries and cookpots. They are also setting up an information system, including a national database and indicators under the ChemObs project.

Mr. Rakotomanana noted the aim to further strengthen inter-ministerial coordination on the management of chemicals, including the issue of lead, with the involvement of all relevant agencies. The government is looking for partners to test for lead exposure among children, women and workers as their target populations, in order to have data to use in government advocacy efforts, including to the council of ministers.

There is a need for the development of a communication and sensitization plan for the general public, including messaging on lead's impacts on health, environment and the economy; this work is currently in progress. There is also a need for financial and technical support to build capacity and support the implementation of action in relevant sectors.

From a regional perspective, Mr. Rakotomanana identified several areas for coordination, including the creation of a structure for the easy exchange of regional information specifically for Africa and the promotion of sub-regional standards.

Mr. Lamoussa Jean Claude Damiba, Executive Director, Center for Environmental Governance and Sustainable Development (Centre pour la Gouvernance Environnementale et le développement Durable CGEDD), Burkina Faso, provided input from Burkina Faso, as Mr. Issouf Son of the Ministry of Environment, Water and Sanitation had difficulty connecting. Mr. Son's slides are included in the **Appendix** for reference. Mr. Damiba provided an overview of the state of lead-acid battery management and lead-based paint in Burkina Faso. He explained that he had conducted a baseline study on used battery management with the NGO Pure Earth. Key actors included collectors and sellers/exporters. Used batteries are collected and stored, often in aluminum containers, before selling them, primarily to Ghana and Togo. In Ghana, Mr. Damiba understood that there is a battery management plant capable of recycling the lead.

CGEDD has been working to raise awareness on the health and environmental impacts of lead. Recently, they have been tackling the question of the economic impact of sound management of batteries on actors in the sector, including potential gains, and the possibility of plants in Burkina Faso.

Turning to lead-based paints, Mr. Damiba noted that a recent study had found high lead levels (53% of samples). In coordination with LEEP, Burkina Faso is working to put regulations in place to limit levels of lead in paint, in conformity with the ECOWAS regulations. A working group is being formed to draft the necessary regulations.

5. Questions and Open Discussion – First Session

Participants were invited to contribute questions or comments.

Mr. Fall added additional insight from a regional perspective. He noted that countries in the region often rely on international partners for financing and technical support, but often those partners are focused on communicable diseases, rather than chemicals management. Where there are projects on chemicals management, these are typically more oriented around the environment sector with less involvement from the health sector. Therefore, Mr. Fall advocated for international partners to support greater involvement of and resources for the health sector in chemicals management, in order to better protect the health of populations.

Prof. Fall also raised the question to representatives from other countries in the region of the status of transcribing the ECOWAS regulation on lead paint at the national level. This is still in

process in Senegal, and Mr. Fall requested information from others on this process in their own countries.

Mr. Koffi, as a representative from ECOWAS, shared his perspective from the regional point of view. ECOWAS adopted a regional regulation on lead in paint with technical specifications and obligations, including a 90 ppm total lead content limit and testing methods. Member countries were given one year to adopt the regulation, which runs through December 2024. ECOWAS envisions a regional meeting before the end of the year to take stock of the implementation of the regulation across the member states.¹ The regional regulation was developed through a participatory process, involving ECOWAS departments covering environment, industry and commerce, and from the member states' national standards organizations. There were also consultations with ministries of health, the private sector, and others, before validation by the industry and commerce ministries. This regulation is now mandatory in the ECOWAS region, and ECOWAS is now looking to understand what may be preventing progress in implementation and how they can support it. Mr. Koffi also noted the growing focus on batteries and indicated that ECOWAS also wishes to expand their involvement in addressing that sector.

6. Panel discussion – International Organizations and Civil Society Representatives

Mr. Mangwiro introduced the second panel discussion, which included four representatives from international organizations and civil society.

Panelists in this session were asked to respond to the following prompt: How can the international community support African countries in developing and implementing comprehensive and multi-sectoral lead management strategies that align with broader development objectives and priorities?

Dr. Bret Ericson, Consultant, UNICEF New York, Environmental Health, Climate, Environment, Energy, and Disaster Risk Reduction (CEED)-Programme Group, reported on the work of UNICEF and the Partnership for a Lead-Free Future (PLF). Dr. Ericson referenced the 2020 UNICEF/Pure Earth report [The Toxic Truth](#), which reported that approximately 800 million children globally had blood lead levels exceeding 5 micrograms per deciliter, and that nearly half of the children in LMICs had levels exceeding this level. In response, UNICEF and USAID [launched the PLF](#) in September 2024 at the UN General Assembly; this partnership includes governments, WHO, US EPA and others. This is the first global public-private partnership dedicated to tackling lead exposure in LMICs. The partnership aims to accelerate country efforts to combat lead exposure through regulations, standards, and identifying alternatives.

Dr. Ericson outlined the [five key actions](#) UNICEF has identified that governments can take to end childhood lead poisoning:

- Assess childhood lead exposure and its sources through blood lead level surveys and source assessments.

¹ ECOWAS member states held a regional technical meeting to evaluate the implementation of community standards to reduce exposure to the dangerous effects of chemicals from 16-18 December 2024, which included discussion of lead paint regulation.

- Act decisively across sectors using a whole-of-government approach.
- Develop capacities to protect children by building institutional capacity and identifying where support is needed.
- Toughen measures to reduce lead in the environment by setting standards on lead in paint, batteries, and other sources.
- Eliminate the exposures causing lead poisoning.

To support these actions, UNICEF is developing a toolkit to end childhood lead poisoning in cooperation with US EPA and others. UNICEF is conducting a series of webinars over the next year to present the tools in the toolkit. The topics include understanding lead exposure sources, carrying out blood lead surveys, and developing regulations. These tools will be publicly available on UNICEF's website. The first webinar was held in October, and they will continue through 2025.

Ms. Lesley Onyon, Head of the Chemical Safety and Health Unit of the World Health Organization, discussed the organization's efforts to support countries in addressing lead and upcoming opportunities. WHO has provided support in areas such as risk reduction, knowledge and information building, institutional capacity development, and leadership and coordination, particularly within the health sector.

Ms. Onyon highlighted WHO's [International Lead Poisoning Prevention Week](#), held annually in October, which has seen over 100 events in 2024, demonstrating the sustained interest and engagement of countries in this issue. She also noted WHO's collaborative work with UNEP to eliminate lead paint, with half of the world now having lead paint laws, while emphasizing the need for continued investment to completely end the use of lead in paint. WHO and UNICEF released an online interactive course on [children's environmental health](#), which includes content on lead exposure and its health impacts.

Ms. Onyon stressed the importance of a multi-sectoral approach at the country level, with ministries of health playing a crucial convening role, even though regulatory actions may fall under other ministries. She highlighted the need to examine lead in various environmental media, including drinking water and ambient air.

WHO has published detailed [guidance on the clinical management of lead exposure](#). However, the availability of the suggested chelating agents and diagnostic tools is still lacking in many countries. Surveillance and screening systems are important to identify exposed children and to highlight the seriousness of this issue to national decision-makers.

Ms. Onyon expressed WHO's commitment to working more closely with its country offices to raise the priority of lead poisoning prevention on national agendas, in partnership with ministries of health. She also noted the role of the PLF in helping coordinate the activities of various UN agencies.

Francisca Frimpong, Ghana Standards Authority, who was part of the team that developed the **ECOWAS** standard for lead in paint, as well as the regulation to implement it in Ghana, shared her experiences.

Based on the ECOWAS standard, Ghana revised its own national standards for both solvent-based and water-based paints. The Ghana Standards Authority collaborated with the Ghana Environmental Protection Agency to put together a regulation to implement these new paint standards. Manufacturers in Ghana have demonstrated they are ready to comply with the new lead limits, but the country has faced issues with non-compliant imported products. With the Ghana EPA they have conducted sampling and analysis in Accra and Kumasi to investigate further.

In addition to lead in paint, the Ghana Standards Authority is also in discussions with stakeholders, including WaterAid, to look at the issue of lead exposure from pipes and taps used for drinking water sources. The Ghana Standards Authority is working to develop standards to ensure drinking water system components are in compliance.

Dr. Lilian Corra, Senior Advisor for the Global Alliance on Health and Pollution (GAHP), discussed GAHP's engagement on the issue of lead. She outlined the organization's strategy to assist governments in identifying, evaluating, and prioritizing pollution issues based on health impacts. Lead is a major focus area for GAHP, and they employ a multi-stakeholder collaborative approach with governments, international organizations, academia and the private sector, to define and tackle the sources of lead exposure. GAHP advances specific recommendations and supports concrete projects to reduce exposure.

Dr. Corra emphasized the importance of positioning lead poisoning as a national priority, as sometimes decision-makers are not aware of the extent of the problem in their country or the consequences of inaction. Therefore, it is important to identify the level of exposure and main sources at the local level. Dr. Corra noted the impact of lead not only on children, but on adults as well through cardiovascular disease.

Dr. Corra stressed the need to provide training to health professionals, to improve diagnosis and treatment of lead poisoning, as cases are often missed. Additionally, Dr. Corra highlighted the lack of laboratory capacity in many countries to detect lead in various environmental media and in blood, which hinders the ability to properly evaluate and address the problem. This requires additional resource mobilization.

GAHP has implemented projects in Senegal and Uganda using their multi-sectoral lead management strategy. In both cases, GAHP performed studies to better characterize the local situation and engaged with the relevant stakeholders and sectors to strengthen capacity and set up interventions. GAHP's approach includes additional pollutants beyond lead, as often sources may be responsible for other contamination.

7. Questions and Open Discussion – Second Session

Mr. Koffi noted the importance of blood lead surveillance, based on the previous presentations. He highlighted the need for greater detection capacity among public health laboratories so that authorities can be well informed. He also referenced the example of the US action plan as one

model to promote strong governance of this issue and help countries with planning capacity building, pilot studies and awareness raising. Mr. Koffi also noted the importance of the mapping of lead exposure sources to understand which are the most important and develop an overarching plan. ECOWAS has worked with multiple international partners on lead in paint, and has now initiated work on lead in batteries, and he expressed the benefit of a focused and concerted plan forward at the regional level.

8. Closing Remarks

Ms. Paun expressed her gratitude to the panelists and participants and thanked them for their high level of engagement and for connecting to share information with one another. Ms. Paun noted that UNEP is a member of the PLF, and that this consultation will be used to ensure that future planning addresses current needs. Currently, the Partnership is mapping which activities are being carried out by each partner across different countries, to coordinate and understand what remaining needs are. With the support of the US EPA, UNEP will continue to support countries in this region and others. UNEP and the US EPA are now working on model legislation for environmentally sound recycling of lead-acid batteries, following a similar approach as previously done with a model law on lead paint. There is also a focus on enforcement as well. The Global Alliance to Eliminate Lead Paint created a [Lead Paint Law Compliance and Enforcement Guidance](#) document and [held a webinar](#) on this topic in October (LINK). UNEP envisions further such training.

Ms. Bandemehr thanked the participants and noted the importance of hearing feedback from representatives from the country level, in order to ensure the upcoming work at the international level aligns with what is needed. She welcomed continued input.

9. Key Takeaways

The consultation discussions yielded the following key takeaways:

- The availability of data – including population health information such as blood lead levels, contributing lead exposure sources, and the content of lead in products on the market – are key to informing priorities and building the case for government action on lead.
- There is an opportunity for greater collaboration both among agencies within a country and across countries, to share information and coordinate a response.
- Country representatives in ECOWAS expressed interest in further discussions to share experiences with implementing regulations, particularly lead paint regulations, and support further uptake and enforcement.
- Resource mobilization is needed to ensure sufficient technical capacity (including for example, training among healthcare providers and laboratory capacity) among the relevant agencies.
- Initiatives like the Partnership for a Lead-Free Future indicate the commitment of international organizations to lead exposure reduction and members are actively seeking feedback on how best to assist LMIC countries in this effort.

Appendix

Towards a coordinated, multi-sectoral lead management approach in low- and middle-income countries: Consultations in Africa region (Part II)

Welcome! We will start the consultation at 2pm CET/4pm EAT.

20 November 2024

Housekeeping

- Please note this consultation is being recorded and will be shared publicly on UNEP's website.
 - This consultation has simultaneous French and English interpretation. The language channel can be changed by clicking "Interpretation" in the bottom left of your screen.
 - Please feel free to introduce yourself in the chat. Please use the chat to ask questions, react to presentations, or share your own experience with lead management topics.
 - The content of the panel discussions and contributions from the audience will be captured in a report.
-

Objectives

- Facilitate the exchange of information among African countries on existing lead management activities and needs;
 - Understand sources of lead exposure and applicable regulations at the country or regional level;
 - Present examples of coordinated multi-sectoral lead management approaches, including country-level and international efforts;
 - Discuss current barriers and opportunities for lead exposure reduction action, including a coordinated and multi-sectoral lead management approach.
-

Agenda (in CET)

Moderator: Mr. Alexander Mangwiro, Programme Management Officer, Regional Coordinator, Chemicals, Waste Management & Air Quality Sub-Programme, United Nations Environment Programme Africa Office

2:00 – 2:10 – Welcome and introductions

2:10 – 2:35 – Setting the scene on lead management

2:35 – 3:00 - Panel discussion – Country Representatives

3:00 – 3:10 – Questions and Open Discussion

3:10 – 3:40 - Panel discussion – International Organizations and Civil Society Representatives

3:40 – 3:50 – Questions and Open Discussion

3:50 – 4:00 – Conclusions and Final Remarks

Professor Mamadou FALL
Pharmacist Toxicologist
Poison Control Center
Ministry of Health and Social Action
Senegal



Gestion de l'exposition au plomb au Sénégal



Pr Mamadou FALL

madoufal@gmail.com; mamadou3.fall@ucad.sn

Novembre 2024

Country experience

- Gestion de la pollution environnementale dans la banlieue de Dakar suite à une forte contamination due à un recyclage de batteries de voitures en 2008:
 - Décontamination du quartier
 - Traiter les enfants à risque
 - Suivi du niveau de contamination du quartier avec GAHP
- Elaboration normes de limitation du plomb dans les peintures:
 - Norme NS 09-059 (parties prenantes au Senegal) avec le soutien de l'UNEP
 - Norme ECOSTAND 092-2022 (pays CEDEAO)
- Suivi des niveaux de plomb dans les peintures avec LEEP
 - Echantillonnage dans les marches
 - Analyse des peintures
 - Partage des résultats avec autorités et fabricants et importateurs
 - Accompagnement des industries



National planning

Bissau, les 6 et 7 Juillet 2023

RÈGLEMENT C/REG.13/07/23 RELATIF A L'APPLICATION DE L'ECOSTAND 092 :2022 SUR
LES PEINTURES, LES VERNIS ET LE PLOMB DANS LES PEINTURES

- Prendre un décret ou un arrêté interministériel pour l'application du Règlement de la CEDEAO (commerce/industrie , environnement, santé)
- Suivi du plomb dans les peintures
- Surveillance sites pollués
- Détermination du niveau d'imprégnation au plomb de la population
- Détermination des teneurs de plomb dans les céréales



Regional coordination

- Application du règlement C/REG.1307/23 dans les différents pays de la CEDEAO
- Obligation du contrôle des peintures au plomb dans l'espace CEDEAO
- Gestion de la recuperation des batteries de véhicules
- Meilleure coordination au niveau national par les Ministères en charge de l'Environnement, la Santé et le Commerce

US Government Example of a Multi-Sectoral Lead Management Strategy

Angela Bandemehr

Co-Chair, US Government International Lead Exposure Working Group
US Environmental Protection Agency

UNEP Consultation – Addressing Lead Pollution in Africa
Virtual Meeting, 20 November 2024

Overview



US Government-wide mechanisms

US President's Task Force
Addressing Lead and Other Issues
President's Task Force Priority
Activities 2024-2026 for the
International Lead Exposure
Working Group



US Action Plans and Strategies

US Federal Action Plan & EPA
Strategy Goals and Progress
Addressing Lead Exposures



Potential application to LMIC context

Sectoral Management Approach
UNICEF Toolkit to Address Lead
Exposures in LMICs
UNICEF Toolkit building on EPA
LLAP Guide and other Toolkits

US President's Task Force Addressing Lead and Other Issues



The President's Task Force on Environmental Health Risks and Safety Risks to Children is the focal point for coordinating federal government efforts to explore, understand, and act together to improve children's safety and environmental health.

President's Task Force (PTF) on Environmental Health Risks and Safety Risks to Children

- Established 1997 by EO 13045; comprised of 17 federal departments/offices
- Co-chaired by EPA Administrator and HHS Secretary
- 2016 PTF action plan was updated in 2024
- [priority activities 2024-2028 on public website](#) include 2 international lead actions



Senior Staff Steering Committee of the PTF

- “Operational arm” of PTF, co-chaired by EPA & HHS



Lead (Pb) Subcommittee of the Senior Staff Steering Committee of the PTF (1 of 4)

- Co-led by EPA, Health and Human Services, Housing and Urban Development
- Leading implementation of [2018 Federal Lead Action Plan](#)
- Established working groups: Data Mapping, International, Occupational Take-Home Exposures
- EPA implements activities through [EPA Lead Strategy](#)

US Federal Action Plan & EPA Strategy Goals and Progress Addressing Lead Exposures

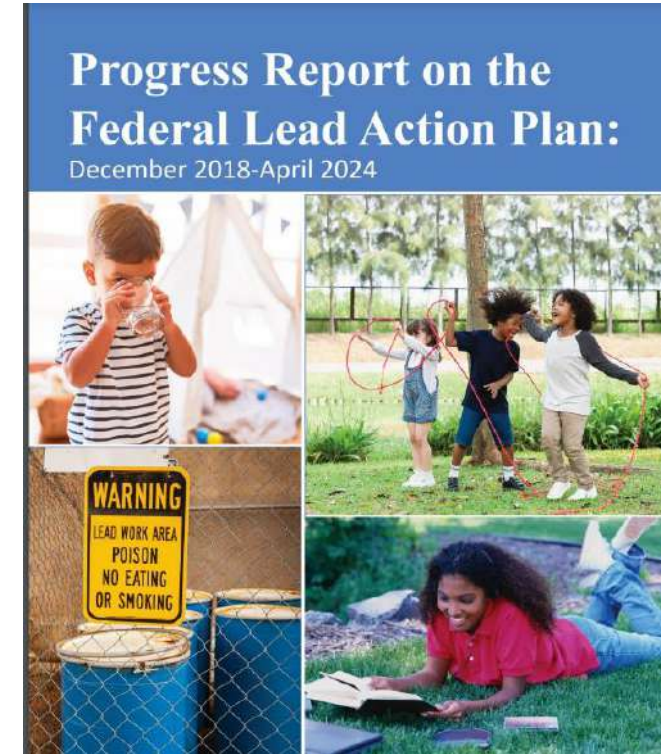
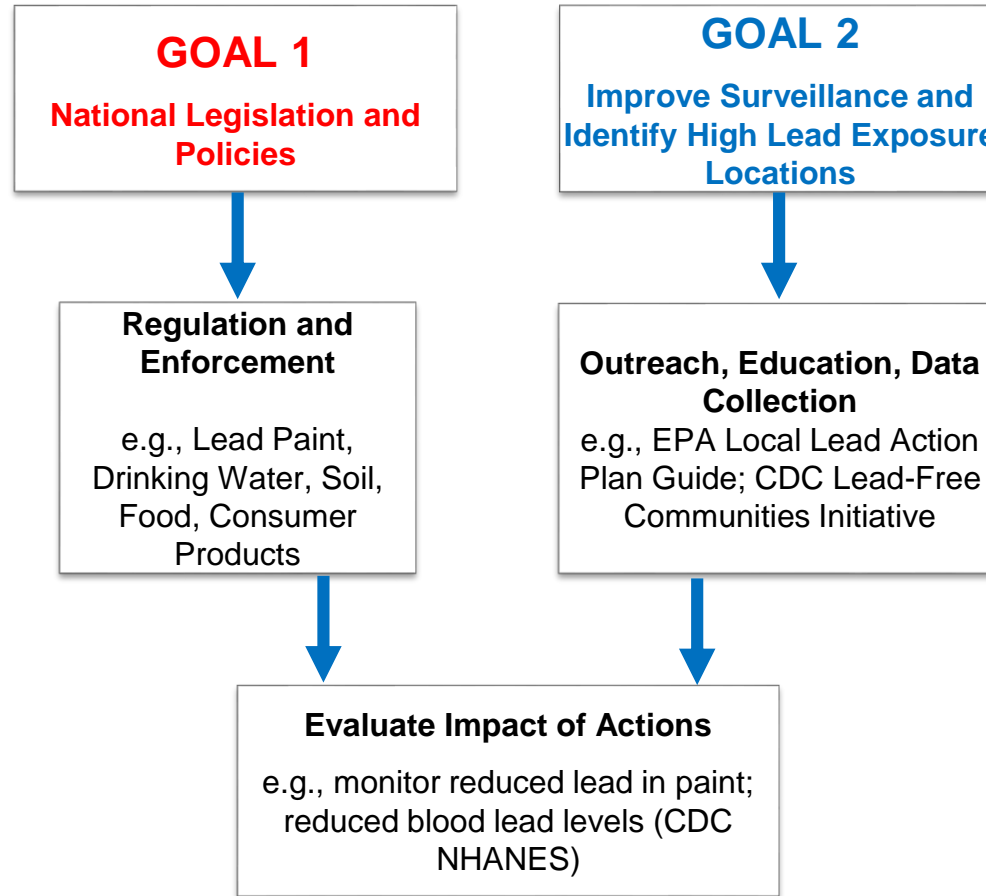
Whole-of-Government and Multi-Sector Collaborations

3 Approaches:
*national-scale;
local-scale; whole-
of-government*

GOAL 3
Communications

&

GOAL 4
Research and Data



https://ptfcehs.niehs.nih.gov/sites/niehs-ptfceh/files/files/progress-report-flap_508.pdf

Examples of Activities from EPA Strategy

Updating the Hazard Standards and Clearance Levels for lead in dust (proposal to reduce thresholds – October 2024). (Goal 1)

Prioritize cleaning up soil in communities contaminated by lead from CERCLA (Superfund) or RCRA releases. (Goals 1 & 2)

Free or low-cost training for community members & renovation, repair, and painting contractors to raise awareness and boost the lead-safe workforce in disadvantaged communities. (Goals 2 & 3)


Extend and apply mapping efforts to identifying areas of potentially high exposure and vulnerability. (Goals 2 & 4)

Other Agency's Actions

- Goal 1
 - EPA and other agencies amended standards and guidance to strengthen regulations for residential lead levels in soil, dust, drinking water, and food.
- Goal 2
 - The Centers for Disease Control and Prevention lowered the blood lead reference value from 5.0 $\mu\text{g}/\text{dL}$ to 3.5 $\mu\text{g}/\text{dL}$
- Goal 3
 - Several agencies participate in National Lead Poisoning Prevention Week, which raises awareness about the dangers of lead in the US and is coordinated at the international level with the International Lead Poisoning Prevention Week.
- Goal 4
 - The Department of Housing and Urban Development (HUD) conducted a second American Healthy Homes Survey to determine progress in reducing the prevalence of U.S. homes with lead-based paint hazards, elevated water lead levels, and lead service lines.

Example of Tool of Potential Relevance in International Context


- EPA's Local Lead Action Plan Guide ([LLAP](#)) is a web-based framework available on [EPA's lead website](#)
- Includes checklists, action plan templates, informational resources, best practices, and case studies
- LLAP steps include:
 - Step 1: Complete LLAP Checklists (see below)
 - Step 2: Create a Local Lead Action Plan
 - Step 3: Implementation



ASSESSING LOCAL LEAD HISTORY & DATA

Get a baseline of the lead history and lead data available for the local area


[Checklist 1](#)



IDENTIFYING POTENTIAL LEAD ISSUES

Find potential lead issues across media and sectors in the local area

[Checklist 2](#)



IDENTIFYING OPPORTUNITIES TO ADDRESS LEAD

Find gaps that may exist and opportunities to take action to address the local lead issues

[Checklist 3](#)

International Lead Exposure Working Group

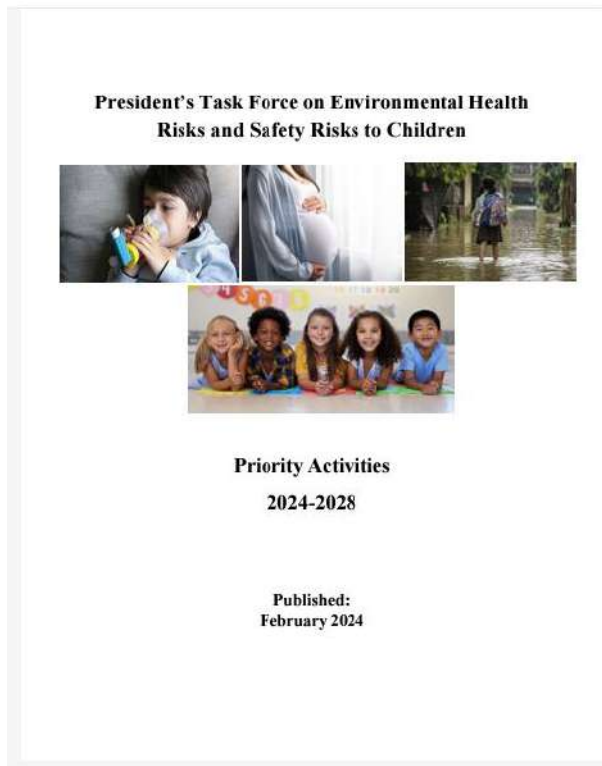
President's Task Force Priority Activities 2024-2028

Short-Term Action (2024-25)

Convene an International Lead Exposure Working Group within the Lead Exposures Subcommittee and **identify and leverage existing federal efforts** (e.g., technical expertise, lessons learned, and best practices) to help build and/or enhance capacity in low- and middle-income countries to address lead exposures.

Long-Term Action (2026-28)

Build on U.S. international cooperative activities, including by leveraging existing and new multi-stakeholder international partnerships (such as the Global Alliance to Eliminate Lead Paint) **to help low- and middle-income countries establish, enhance, and implement targeted national and local prevention interventions** to reduce and eliminate key lead sources and exposures.

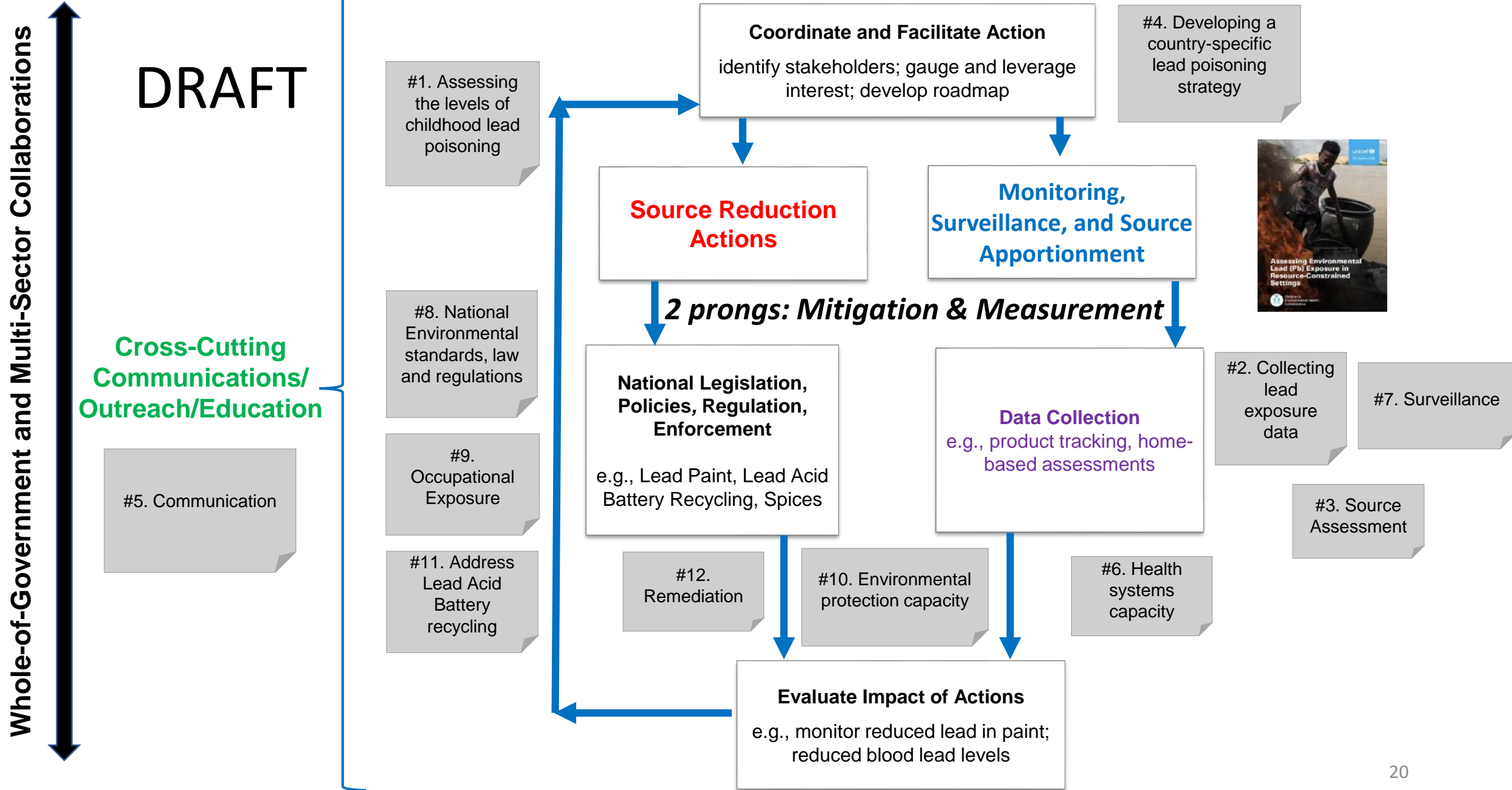


EPA Lead Strategy 2025 Goal



By September 2025, collaborate with UNICEF and UNEP to finalize at least four tools on best practices for lead pollution reduction in low- and middle-income countries.

Multi-Sectoral Management Approach & UNICEF Toolkit to Address Lead Exposures in LMICs



Thank you

Contact

Angela Bandemehr

Co-Chair US Government International Lead Exposure Working Group

US Environmental Protection Agency

bandemehra@epa.gov

+1 202.564.1427

Panel Discussion I

Mr. Issouf SON

Focal Point of the Basel Convention

Environmental Inspector

General Directorate of Environmental Preservation Ministry
of Environment, Water and Sanitation

Burkina Faso



Panel en ligne sur les approches de gestion du plomb dans la région Afrique

ETAT DE REFERENCE DE LA GESTION DES BATTERIES AU PLOMB USAGEES AU BURKINA FASO

Issouf SON

Inspecteur de l'Environnement

Point focal national de la Convention de Bâle

Ministère de l'Environnement, de l'Eau et de l'Assainissement (MEEA)

PLAN

- **INTRODUCTION**

I. MESURES SPECIFIQUES SUR LA GESTION DU PLOMB AU BURKINA FASO

II. PLANIFICATION NATIONALE EN MATIÈRE DE GESTION DU PLOMB AU BURKINA FASO

III. COORDINATION REGIONALE ENTRE LES PARTIES PRENANTES

- **CONCLUSION**



INTRODUCTION

Situé au cœur de l'Afrique de l'Ouest, le Burkina Faso, connaît une utilisation croissante de produits et des biens importés comme la plupart des pays en développement. Certains de ces produits et biens contiennent des métaux toxiques tel que le plomb.

Ce métal toxique est une menace environnementale émergente dans les pays en développement de façon générale.

Pourtant la plupart de ces pays ne dispose pas les capacités pour gérer de façon écologiques les déchets contenant du plomb.

I. MESURES SPECIFIQUES SUR LA GESTION DU PLOMB AU BURKINA FASO

Actions menées

- 2011: réalisation d'une étude technique de diagnostic national de la gestion des déchets d'équipements électriques et électroniques (DEEE) en fin de vie notamment les ordinateurs et téléphones portables en fin (**Ministère en charge de l'environnement**) ;
- 2019: Réalisation d'un plan de gestion des déchets du système photovoltaïque et des équipements énergétiques efficaces (**ANEERE, MEMC**) ;
- 2022: réalisation d'un état de référence de la gestion des batteries au plomb-acide usagées au Burkina Faso (**Ministère en charge de l'environnement avec l'appui financier du PNUE**) ;
- Recherche-Action à travers le Centre d'Expertise pour la récupération et la Valorisation des Métaux (CERVAM) de l'Université Norbert Zongo (UNZ) dont l'ambition est de développer une filière rentable basée sur la gestion écologique des DEEE et des produits de la filière solaire à travers la chimie verte au Burkina Faso et dans la sous région ; l'UNZ travaille en collaboration avec les universités sœurs du pays (Université Joseph Ki Zerbo, Université Thomas Sankara, Université Nazi Boni) et le Centre MURAZ

I. MESURES SPECIFIQUES SUR LA GESTION DU PLOMB AU BURKINA FASO

Actions menées

- Sensibilisation des acteurs du génie civil à l'utilisation de la peinture sans plomb ;
- Sensibilisation des acteurs formels et informels sur la collecte, le transport, le stockage et le traitement et la valorisation des BAPUs ;
- Mise en place des unités de recyclage des Batteries au Plomb Usagées par des structures privées formelles ;
- Contrôle des installations de recyclage des BAPUs par le ministère en charge de l'environnement ;
- Délivrance des autorisations nationales aux acteurs formels pour le traitement et la valorisation des BAPUs ;
- Délivrance des autorisations pour l'exportation des BAPUs vers les pays voisins et vers l'Europe et l'Asie (application de la procédure PIC de la Convention de Bâle)

II. PLANIFICATION NATIONALE EN MATIÈRE DE GESTION DU PLOMB AU BURKINA FASO

- Il existe une réglementation qui encadre la gestion des déchets en général et la gestion des déchets dangereux en particulier notamment la Constitution (1991), le Code de l'environnement (2013), le Code de Santé publique (1994), le Code général des collectivités territoriales, les décrets sur les normes de rejets dans l'air, l'eau et le sol et sur les normes de déversements des eaux usées, les décrets sur les produits chimiques et les déchets dangereux (2013). **Il est judicieux de procéder à une ouverture du champ d'application du code de l'environnement aux panneaux photovoltaïques à travers l'adoption d'un texte juridique qui viendra détailler les dispositions de l'article 50 de ladite loi.**
- Pour une meilleure réduction des sources de production des déchets de plomb, le ministère en charge de l'environnement à travers la Direction générale de la préservation de l'environnement (DGPE) est mieux placé pour planifier et coordonner les actions en collaboration avec le ministère en charge de l'économie à travers la Douane, le ministère en charge des mines et de l'énergie, le ministère en charge du commerce et les collectivités territoriales à travers les communes.

III. COORDINATION REGIONALE ENTRE LES PARTIES PRENANTES

Au regard des actions déclinées plus haut sur l'organisation des acteurs institutionnels et les acteurs de collecte, de transport, de stockage et de traitement/valorisation du plomb usagé, il faut noter que le Burkina Faso manque de moyens financiers pour organiser la filière et gérer efficacement les déchets de plomb.

La mise en place **d'un centre de recyclage des BAPUs** et **d'un centre de fabrication de BAP** sont nécessaires.

Une subvention financière de la part du PNUE allouée à l'Etat Burkinabè serait d'un grand atout et permettre au ministère en charge de l'environnement à travers la DGPE de mieux coordonner toutes les actions de recyclage des BAPUs,

Pour un meilleur partage d'informations et de coordination entre les parties prenantes de la région Afrique, il serait bon de redynamiser le Réseau d'Echanges d'Information Chimiques (REIC)

CONCLUSION



MERCI POUR VOTRE AIMABLE ATTENTION

Mr. Rila Albani RAKOTOMANANA
Director of Pollution and Waste Management
Ministry of the Environment and Sustainable Development Focal
Point of the Basel Convention
Madagascar



RILA ALBANI RAKOTOMANANA

Director of pollution and waste management

Focal point of lead in paint

Focal point of basel convention

Coordinator of chemobs (chemicals observatory)

Ministry of DEnvironment and Sustainable Development

Madagascar

UNEP CONSULTATION – ADDRESSING LEAD POLLUTION IN AFRICA

VIRTUAL MEETING, 20 NOVEMBER 2024

Diapo 1 – Expérience du pays

Le plomb a été identifié comme l'une des 10 produits chimiques très dangereux à Madagascar (par l'Observatoire ChemObs)

les mesures spécifiques prises pour gérer le plomb à Madagascar :

- Création d'une structure interministérielle pour la gestion et le suivi des produits chimiques y compris le plomb à Madagascar;
 - Mapping des zones contaminées par le plomb dans la capitale;
 - Mapping des producteurs de peinture formelle et informelle et accompagnement à la reformulation au peinture sans plomb;
 - Identification des 3 sources d'exposition par le plomb à Madagascar (Batterie, fabrication de marmite traditionnelle et la peinture);
 - Echantillonnage et analyse de la teneur au plomb dans les peintures utilisés sur le territoire national plus de 10.000 PPM;
 - Création de base de données sur la gestion et suivi des produits chimiques y compris le plomb;
 - Existence d'une norme sur la peinture au plomb et décret en cours de validation
-

Diapo 2 – Planification nationale

Les points clés sur les besoins actuels du pays et la planification en matière de gestion du plomb :

- mise en place d'un cadre réglementaire contraignant sur le plomb;
- mise en place du système d'information sur la base de données et suivi du plomb au niveau national;
- Renforcement du structure de coordination interministérielle sur la gestion des produits chimique y compris la question du plomb;
- Test de plombémie enfant, femme et travailleur pour avoir des bases de données pour être utilisé comme plaidoyer par la suite ;
- Elaboration du plan de communication et sensibilisation sur le plomb

Besoin d'appui technique et financier pour la mise en œuvre de ces activités y compris le renforcement de capacité

Diapo 3 - Coordination regionale

Les points clés sur les activités de gestion du plomb envisagées pour l'avenir et sur la manière dont la coordination régionale ou internationale pourrait soutenir ce travail, par exemple :

- Mise en place d'un texte réglementaire
 - Renforcement de la structure de coordination
 - Renforcement du système d'information
- **Pour favoriser le partage d'informations et la coordination entre les parties prenantes de la région ?**

Création d'une structure de coordination, d'échange et de partage d'information régionale pour la question du plomb au niveau Afrique.



**MADAGASCAR
INTERDIRE
LES PEINTURES
AU PLOMB**

THANK YOU

Contact

Rila Albani RAKOTOMANANA

Director of Pollution and Waste Management

Ministry of Environment and Sustainable Development

Madagascar

riladgp@gmail.com

+261 34 71 626 64

Questions?

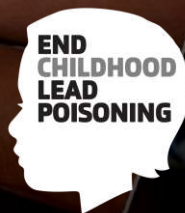
Panel Discussion II

Dr. Bret Ericson
Environmental Health Consultant
UNICEF

UNEP Consultation – Addressing Lead Pollution in Africa

20 November 2024

Bret Ericson, Environmental Health Consultant
bericson@unicef.org



**PARTNERSHIP FOR
A LEAD-FREE FUTURE**



unicef 
for every child

 PURE
EARTH
RESEARCH INSTITUTE

**About 1 in 3 children –
up to approximately 800
million globally – have
blood lead levels at or
above 5 $\mu\text{g}/\text{dL}$**

**The Toxic Truth: Children's Exposure to Lead Pollution
Undermines a Generation of Future Potential**

IHME Global Estimates, The Toxic Truth, 2020

[Report link](#)

July 2020



**PARTNERSHIP FOR
A LEAD-FREE FUTURE**

Partnership for a lead-free future

- Launched at the 79th UN General Assembly by USAID and UNICEF.
- First ever global public-private partnership dedicated to tackling lead exposure in LMICs.
- The Partnership will work with national governments to **accelerate their efforts** to implement effective regulations and standards and mobilize the private sector to transition to lead-free alternatives and lead-safe industrial operations.



Governments can take leadership and prioritize action

- 1 Assess childhood lead exposure and its sources
- 2 Act decisively across sectors
- 3 Develop capacities to protect children
- 4 Toughen measures to reduce lead in the environment
- 5 Eliminate the exposures causing lead poisoning



Proposed Webinars

Webinar #	Date	Topic
Webinar 1	10/21/24	Understanding sources of lead exposure https://ceh.unicef.org/events-and-resources/events/lead-free-future-every-child-webinar-series-understanding-sources-lead
Webinar 2	11/25/24	Carrying out a Blood Lead Level survey https://ceh.unicef.org/events-and-resources/events/lead-free-future-every-child-webinar-series-carrying-out-blood-lead
Webinar 3	01/27/25	Conducting an environmental risk assessment
Webinar 4	02/24/25	Developing country strategies on lead exposure
Webinar 5	03/31/25	Communicating on childhood lead poisoning
Webinar 6	04/28/25	Developing Health Systems capacity on lead poisoning
Webinar 7	05/26/25	Building lead surveillance system
Webinar 8	06/30/25	Regulatory frameworks
Webinar 9	07/28/25	Occupational exposure
Webinar 10	09/29/25	Developing environmental ministry capacity
Webinar 11	10/20/25	Used Lead Acid Batteries
Webinar 12	11/24/25	Remediation



**PARTNERSHIP FOR
A LEAD-FREE FUTURE**

unicef  | for every child

Bret Ericson, PhD, MSc
Environmental Health Consultant
bericson@unicef.org

Ms. Lesley Onyon
Head, Chemical Safety and Health Unit
World Health Organization

Mr. Bernard Koffi
Interim Director of Environment and Natural Resources
Economic Community of West African States (ECOWAS)
Commission

Dr. Lilian Corra
Senior Advisor
Global Alliance on Health and Pollution (GAHP)

CHEMICAL AND LEAD

GAHP
EXPERIENCE
IN SENEGAL &
UGANDA

DR LILIAN CORRA
20TH NOVEMBER

WWW.GAHP.ORG INFO@GAHP.NET

 **GAHP**
GLOBAL ALLIANCE ON
HEALTH AND POLLUTION

GAHP MODEL OF WORK

Assist governments to identify, evaluate and prioritize existing pollution issues based on health impacts

Establish Collaborative effort (Ministries, GAHP, others)

Advancing specific recommendations and actions

Such as concrete projects to reduce pollution exposures and related illnesses

Reduce environmental health risks, increase or advocate for resources and monitor progress

Multi-sectoral lead management strategies that aligning with broader development objectives.



Senegal

Background:

- Toxic pollution in Senegal often stems from informal chemical use, including heavy metals and pesticides.
- Case Highlight: Lead contamination in Ngagne Diaw (Dakar suburbs) caused the deaths of 18 children (ages 0–6) due to informal lead-acid battery recycling.

Key Initiative:

- Health and Pollution Action Plan (HPAP) (Validated in Dec 2020):
 - Objective: Support Senegal in addressing pollution-related health issues.
 - Priorities:
 1. Outdoor Air Pollution
 2. Indoor Air Pollution
 3. Soil & water contamination (pesticides, heavy metals like lead).

Implementation Highlights:

- DEEC requested GAHP support for follow-up on Ngagne Diaw.
- Soil decontamination (2008–2013) lacked follow-up assessments.
- Limited local data hindered national resource allocation for lead pollution.

Recent Efforts (2021–2023):

- 'Senegal BLL Study': Monitoring children (12–72 months) in high-risk Dakar areas (Ngagne Diaw, Sangalkham, Mbeubeuss).
- Collaboration: GAHP, HPAP program.



Multi-sectoral lead management strategies that aligning with broader development objectives.



Uganda

Overview:

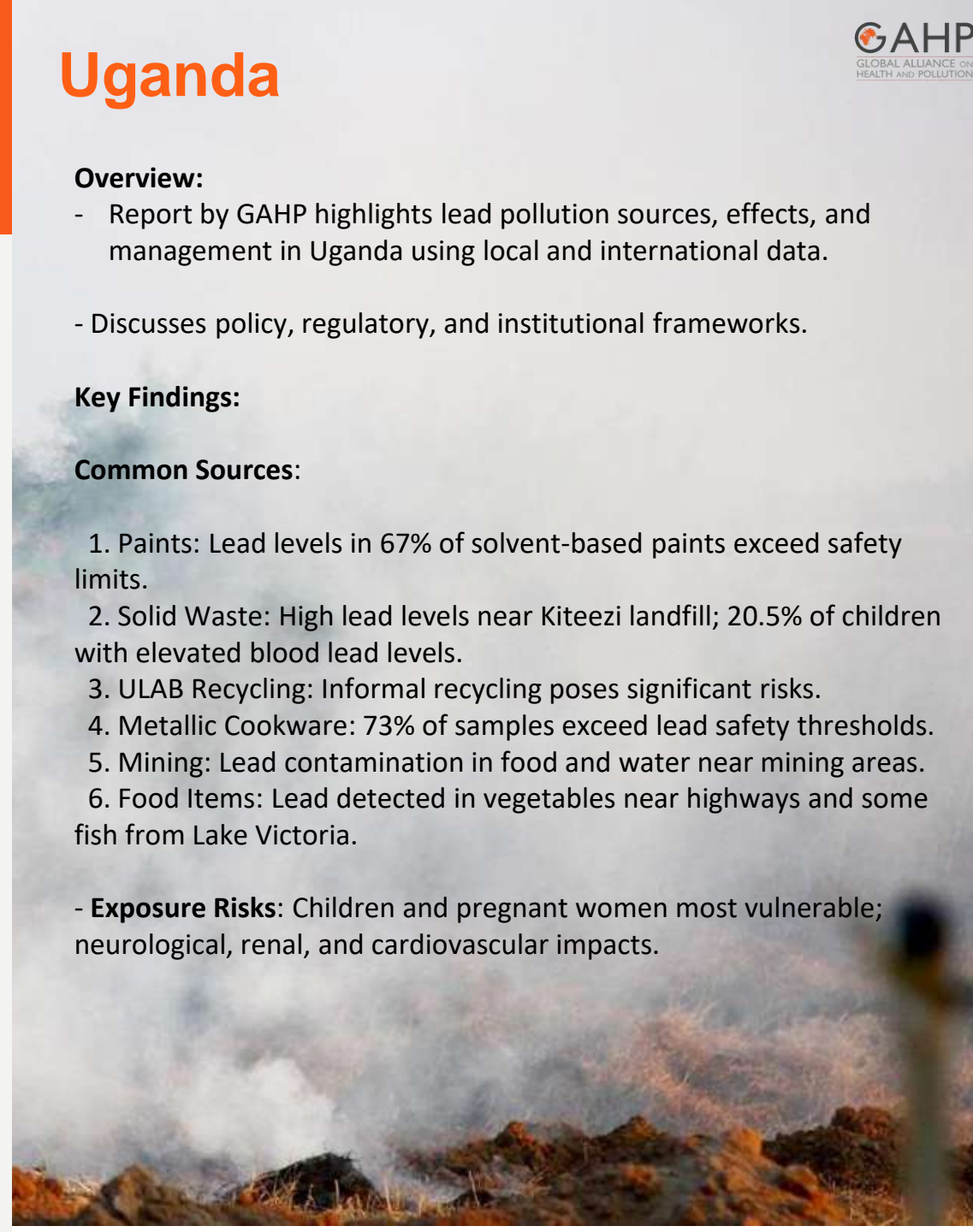
- Report by GAHP highlights lead pollution sources, effects, and management in Uganda using local and international data.
- Discusses policy, regulatory, and institutional frameworks.

Key Findings:

Common Sources:

1. Paints: Lead levels in 67% of solvent-based paints exceed safety limits.
2. Solid Waste: High lead levels near Kiteezi landfill; 20.5% of children with elevated blood lead levels.
3. ULAB Recycling: Informal recycling poses significant risks.
4. Metallic Cookware: 73% of samples exceed lead safety thresholds.
5. Mining: Lead contamination in food and water near mining areas.
6. Food Items: Lead detected in vegetables near highways and some fish from Lake Victoria.

- **Exposure Risks:** Children and pregnant women most vulnerable; neurological, renal, and cardiovascular impacts.



THANK YOU



GAHP
GLOBAL ALLIANCE ON
HEALTH AND POLLUTION

www.gahp.org

info@gahp.net

Questions?

Thank you

Contact: lead-cadmium.chemicals@unep.org

United Nations Avenue, Gigiri
PO Box 30552 – 00100 GPO Nairobi, Kenya

www.unep.org