# Persistent sources of Pb exposure in South Africa

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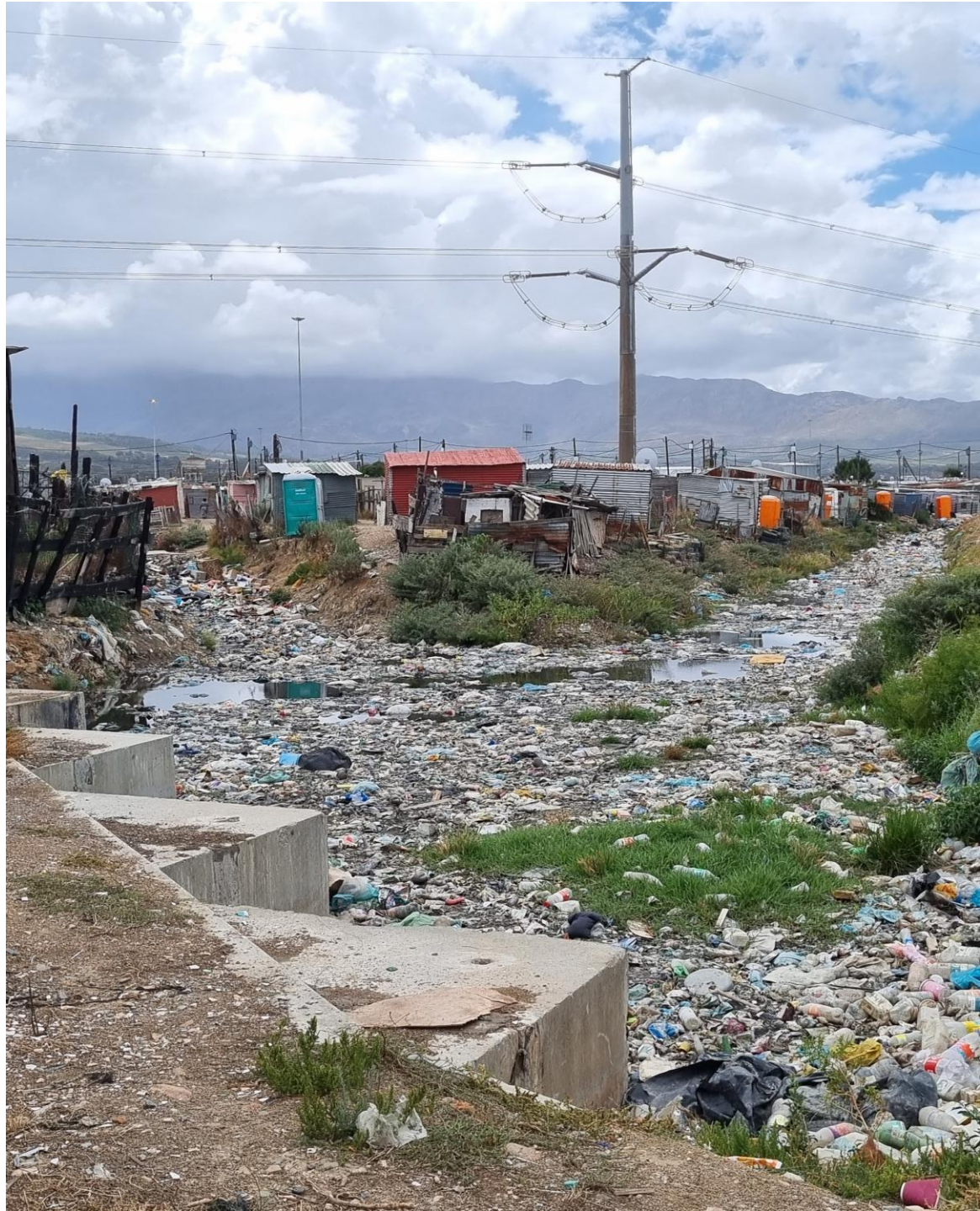
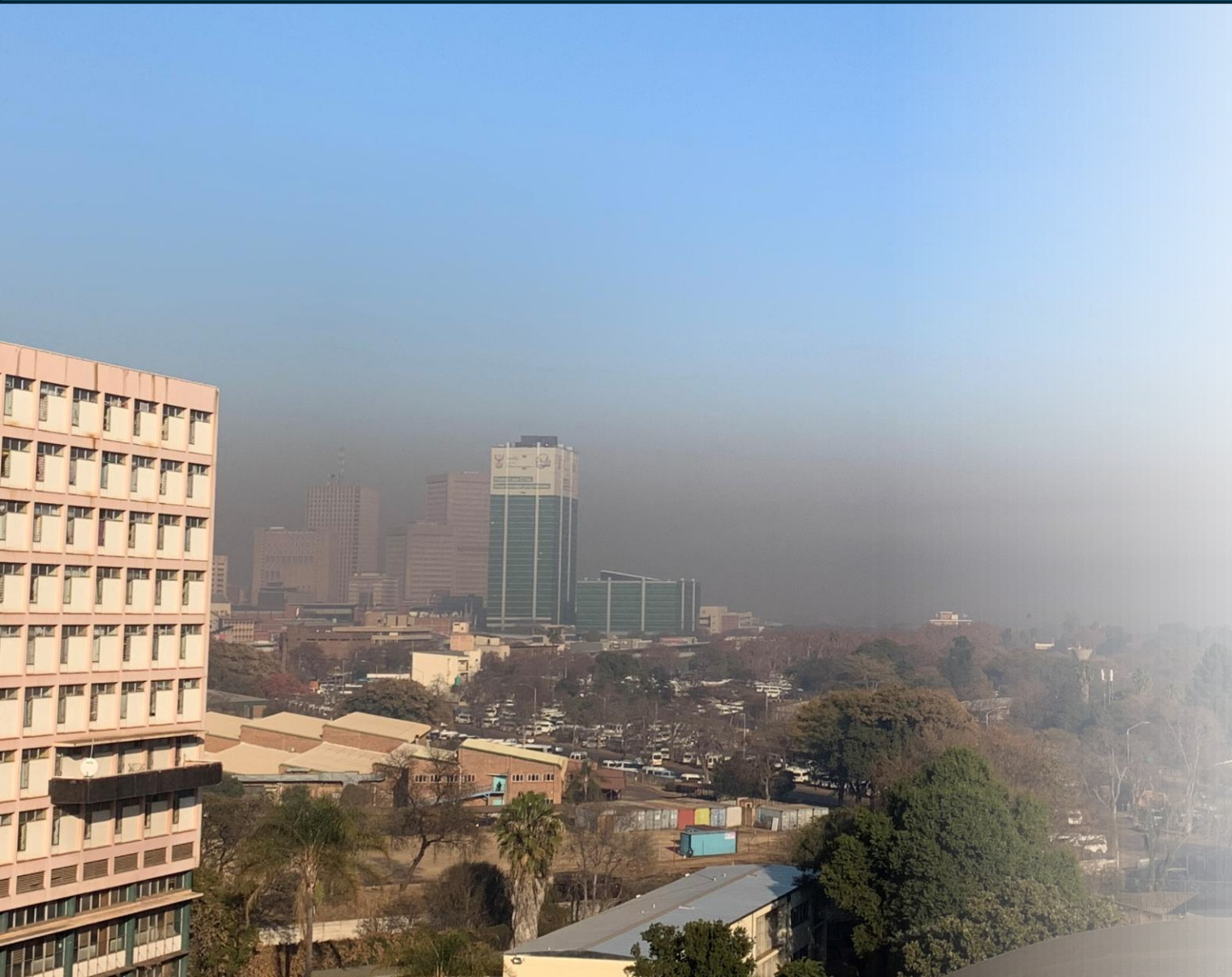


The South African Medical Research Council
recognizes the catastrophic and persisting consequences of colonialism and apartheid, including land dispossession and the intentional imposition of educational and health inequities.

Acknowledging the SAMRC's historical role and silence during apartheid,
we commit our capacities and resources to the continued promotion of justice and dignity in health research in South Africa.

transformation
WORKING TOGETHER FOR EXCELLENCE

# Why lead still matters



- Lead (Pb) is a potent neurotoxin with no safe exposure level

- Disproportionately affects children and vulnerable communities

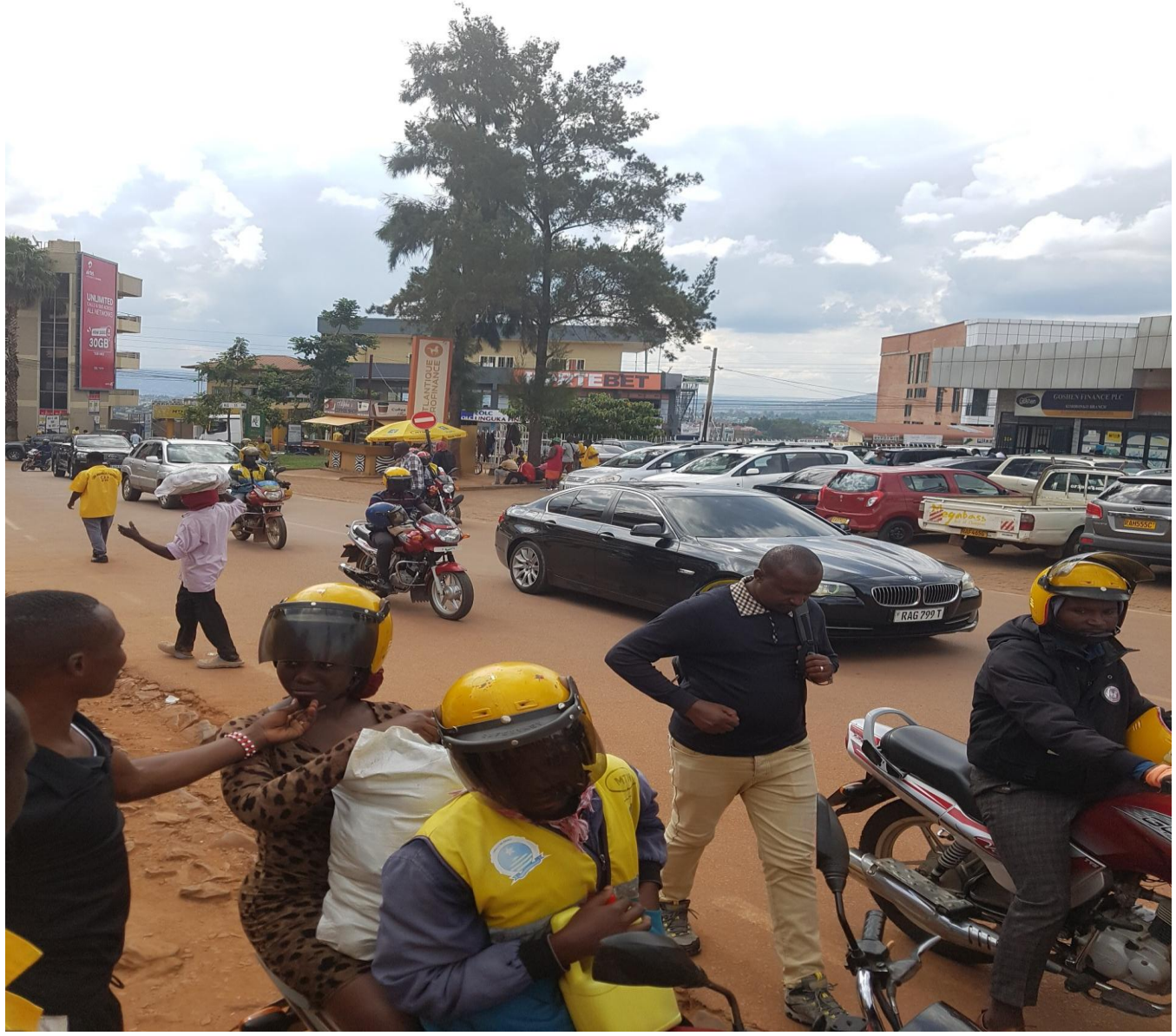
Impacts include:

- Cognitive development

- Behaviour and educational outcomes

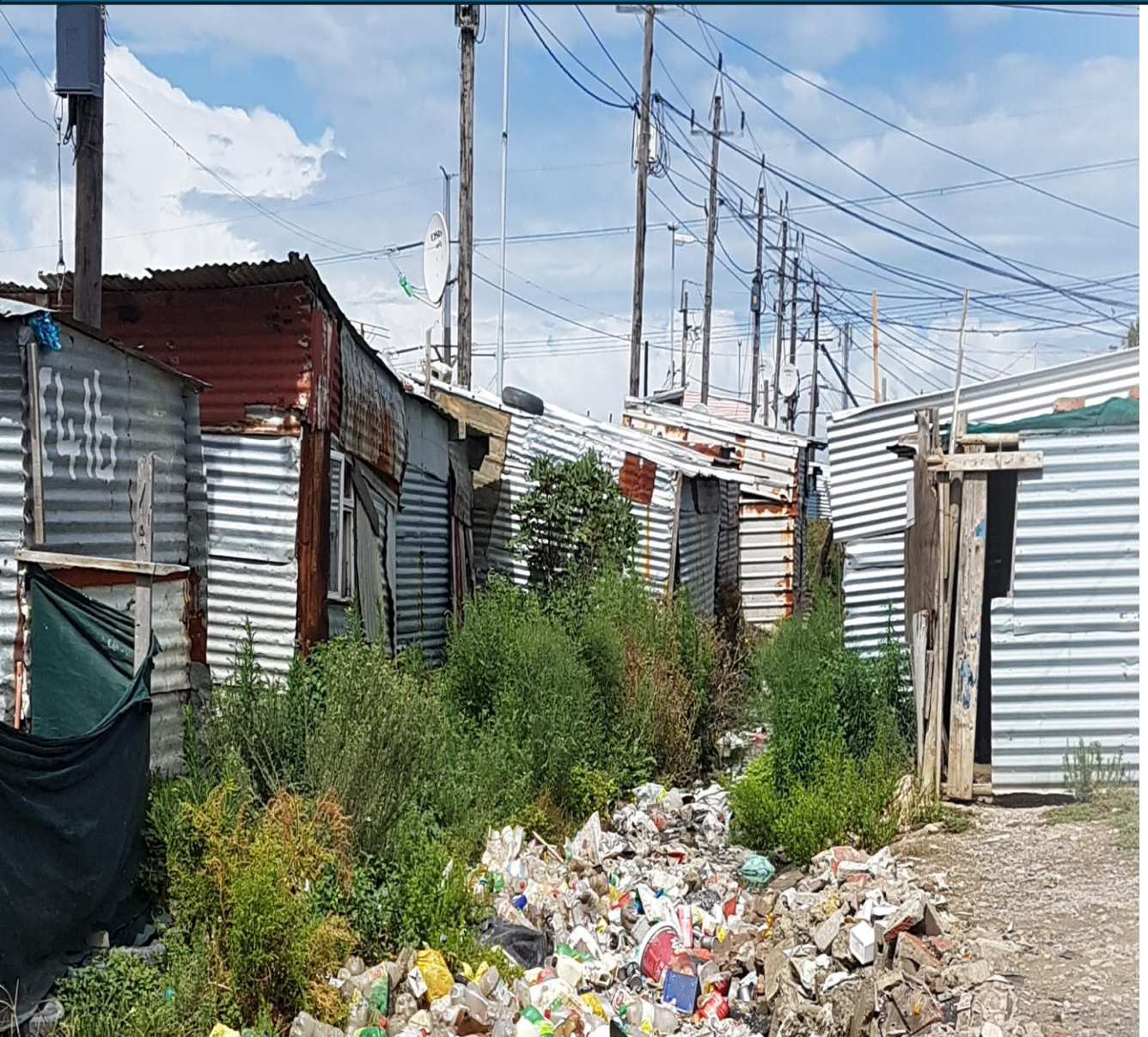
- Long-term health and productivity

# Global Progress vs Local Reality




- Significant global reductions (e.g. phase-out of leaded petrol)
- Yet exposure persists, particularly in LMICs
- Shift from historical sources → diffuse, ongoing sources
- Limited routine surveillance in many settings

# South African Context



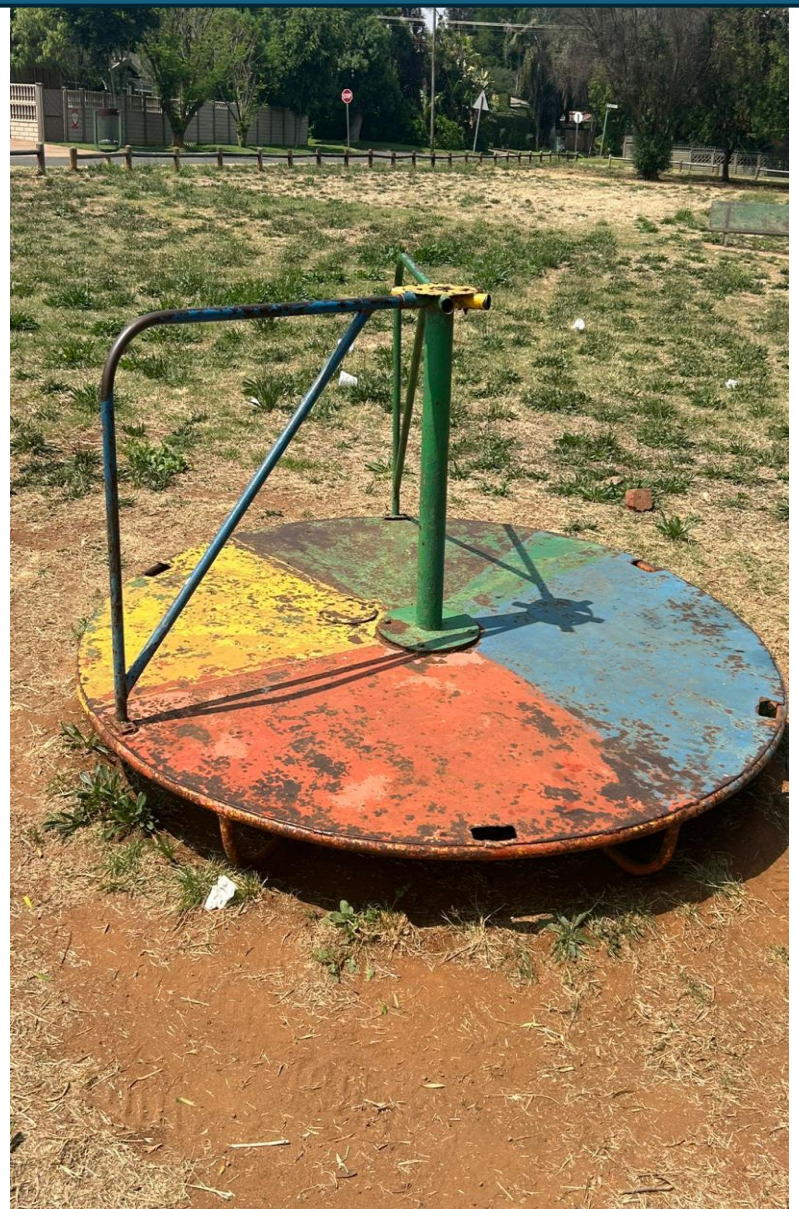
- Historical legacy of mining, smelting, and industrial activity
- Past widespread exposure from leaded petrol (phased out, but legacy remains)
- Ongoing exposure in low-income and informal settings
- Evidence of elevated blood lead levels in children in some communities
- Multiple persistent and poorly regulated sources still present

# Key sources of Pb

**Contaminated Soil and Dust**

•Legacy contamination from:
- Mining
- Industry
- Historical emissions

•Key exposure for children:
- Hand-to-mouth behaviour

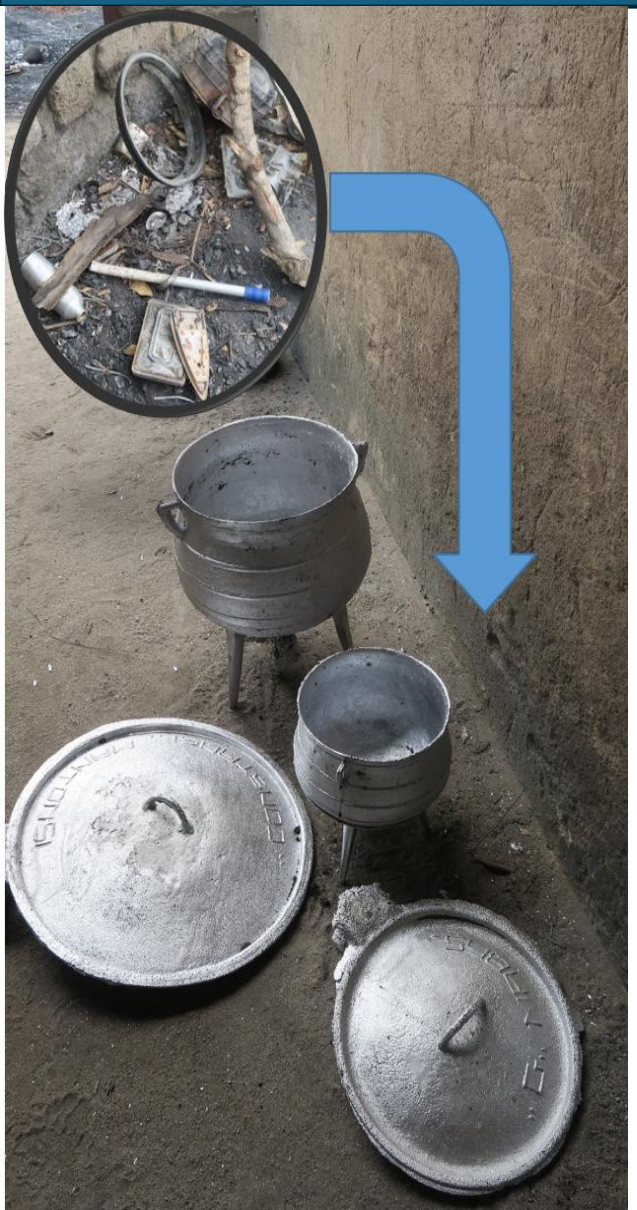


**Lead in Paint: Legacy and Ongoing Risks**

•Older housing stock remains a source
•Non-compliant paints still present in market

•Exposure via:
- Peeling paint
- Household dust
- Renovations / demolition

# Key sources of Pb



**Consumer products**

Examples:

- Cookware
- Cosmetics
- Toys
- Spices

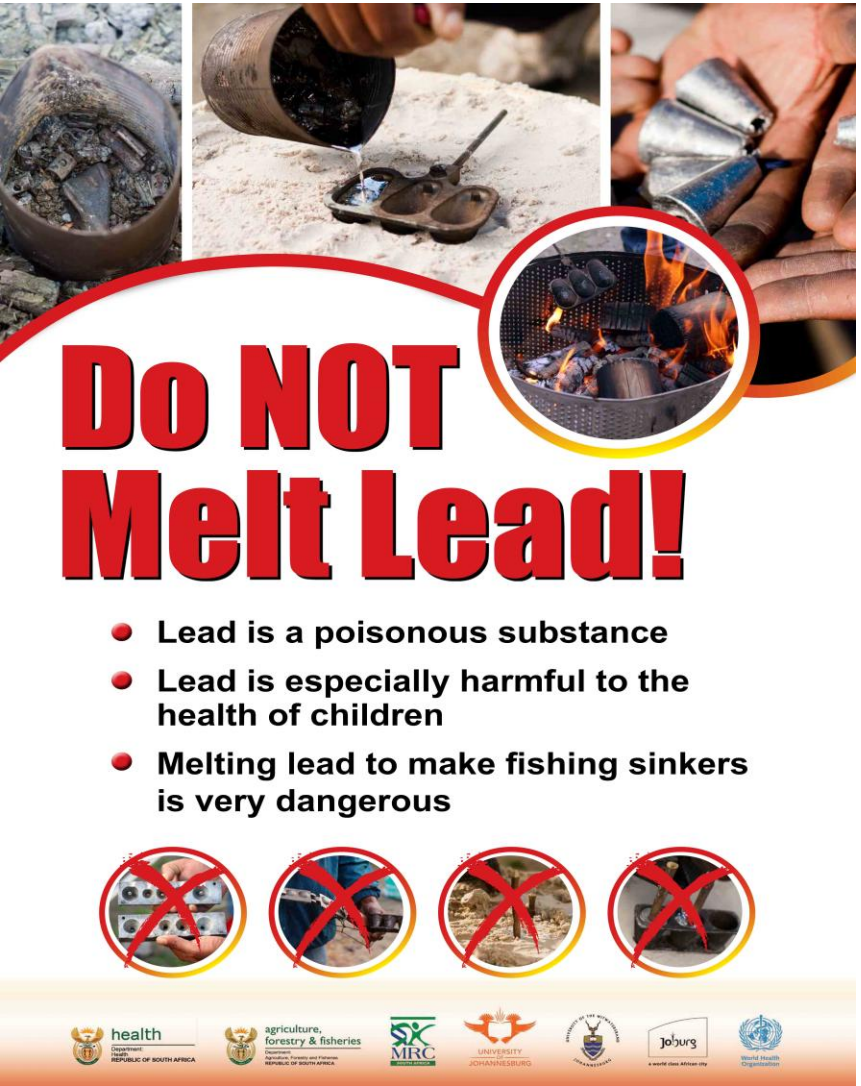
**Traditional medicines and cultural practices**

•Some products may contain lead

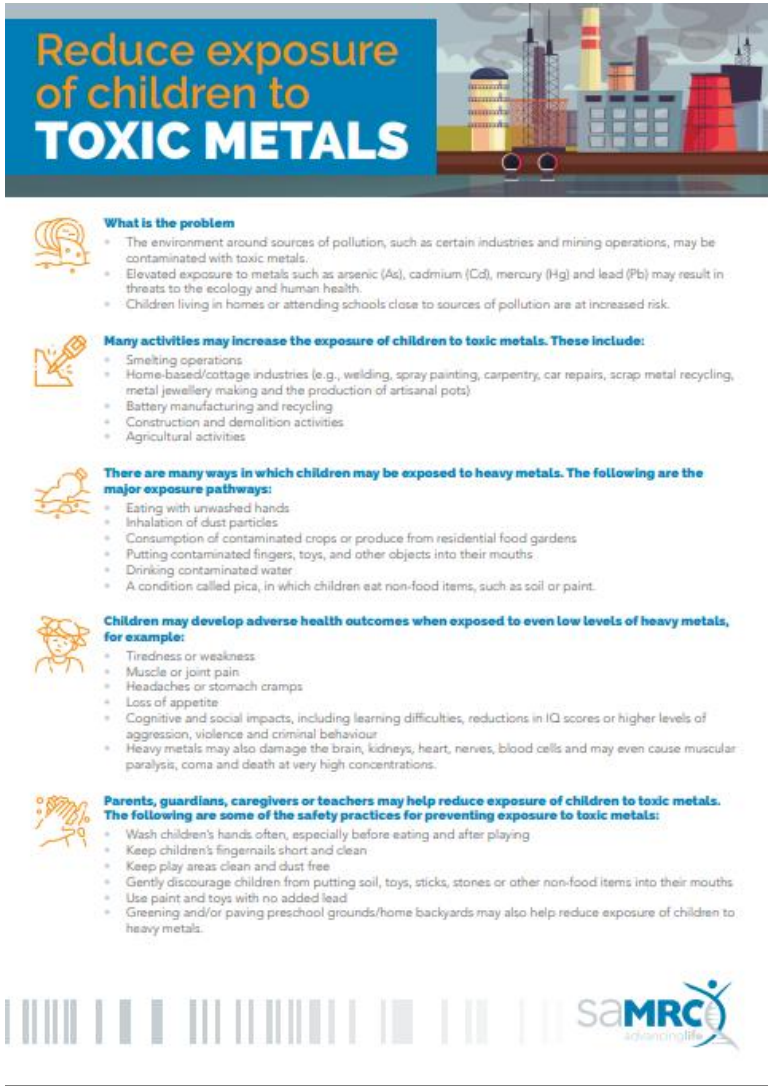
•Important cultural context

•Exposure is often unrecognized

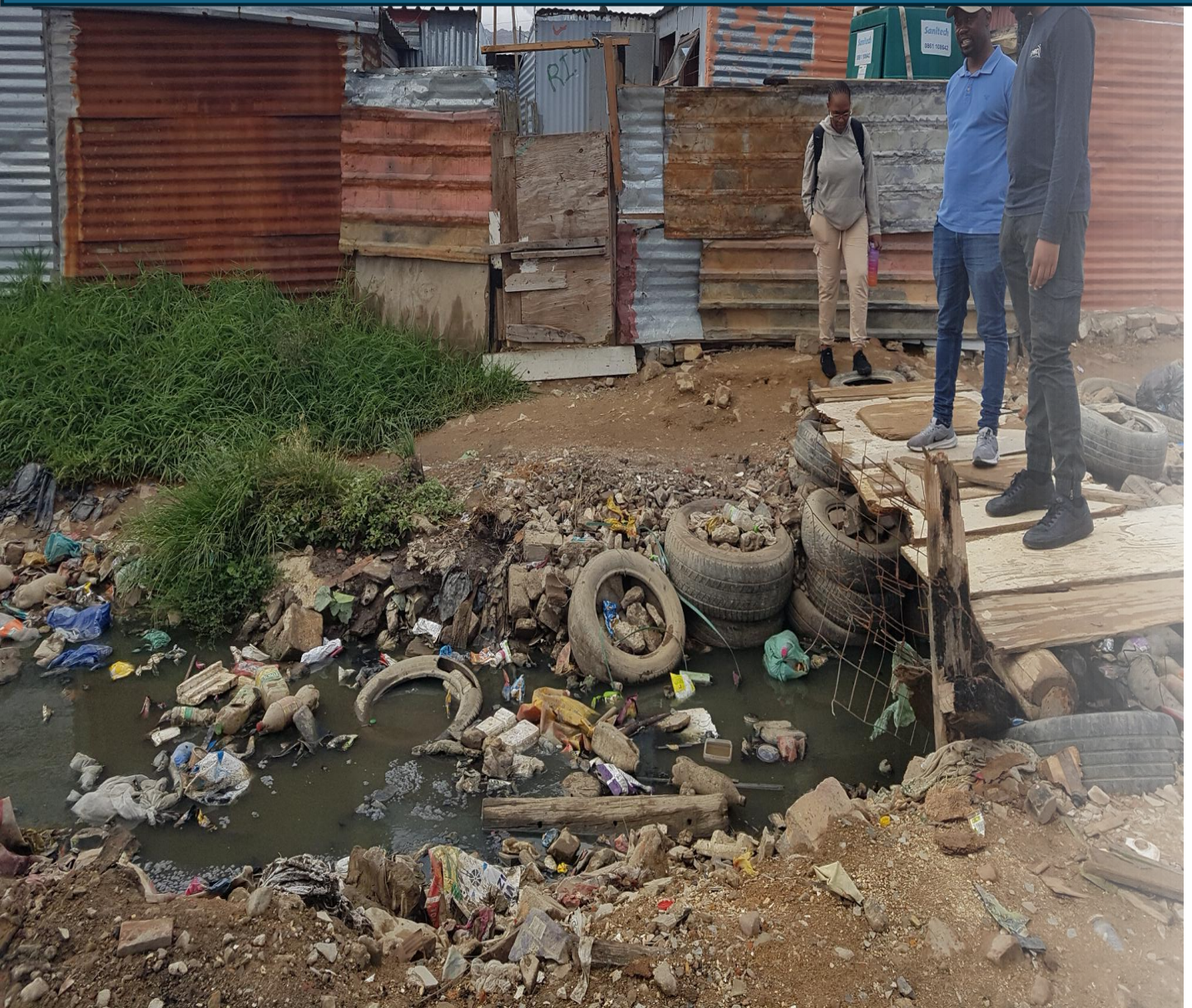
# Risk communication








# Call to Action



- Strengthen monitoring and surveillance
- Target high-risk sources and populations
- Improve enforcement of existing regulations
- Increase public and practitioner awareness
- Support cross-sector collaboration
- One Health approach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