Impacts of soil Pb exposure on children’s PbB levels after *ad hoc* land remediation in a mining town

Kai Yang
Historic Pb management program

Public awareness campaigns
- Hygiene
- PbB screening

Environmental remediation
- Residential clean-up
- Cracker dust application

Capping layer (5–10 cm deep) of Pb-poor cracker dust, a by-product of local quarrying
Sources

- Dust from the orebody, mining works, soil
- Fluvially transported sediment
- Natural weathering of bedrocks
**Exposure risk for Broken Hill children**

**PbB levels in Broken Hill children aged 1–4 years in 1994 and 2012**

- Persistent high risk of chronic low-level Pb exposure (child PbB levels > 5 μg/dL) across Broken Hill, especially near the orebody
Current and future Pb abatement program

- Cross-check modelled PbB data with measured district PbB data
- Modelling across districts to identify abatement priorities, inform policy
- Targeted cracker dust campaign

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