

#47 Lessons Learned from a Multi-Family Public Elemental Mercury Exposure

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Background

- Elemental mercury can linger indefinitely in homes and buildings creating hazardous health conditions that persist long after the original waste is forgotten.
- Limited availability of disposal facilities and strict regulations make proper disposal costly and unfeasible for many homeowners.
- Children are drawn to elemental mercury’s unique silvery appearance and liquid-like characteristics as evidenced by continued calls to U.S. Poison Control Centers.
- We report a multi-family exposure that occurred in a public area of a large city, resulting in a multi-agency response to identify and mitigate patient exposures.

Case Series

Detection

Response

Remediation

- Regional Poison Center (PC) contacted by family of a 10-year-old child who brought home a cup with a silvery liquid material recognized to be elemental mercury.
- The child reported playing with the substance along with 2 other children on the sidewalk outside of a local hair salon.
- Concern that children may have unknowingly spread mercury via contaminated footwear and other unknown exposures.

- Fire department notified by the PC.
- Investigations hindered by residents’ wariness of requests to evaluate their homes.
- Local health and fire departments conducted further investigation, and additional elemental mercury was identified in the same vicinity.
- Local, state, and federal Environmental Protection Agencies (EPA) and Agency for Toxic Substances and Disease Registry were notified.

- Approximately 4 to 5 pounds of elemental mercury were recovered.
- Local health department issued alerts via media, text messaging, and door to door distribution of flyers to call the PC.
- Following the alerts, the PC was contacted with information identifying 2 additional children exposed during initial incident.
- PC received 9 calls total: 2 questions, 3 residents possibly exposed, and 4 exposures (1 healthcare worker and 3 children).

Site Profile - Ethan Avenue Mercury Spill - EPA OSC Response

Discussion

- This mercury spill presented numerous challenges, including an unknown source of exposure in a densely populated area.
- Mitigation required collaboration with local, state, and federal agencies.
- The regional PC was activated as a 24/7 centralized medical triage service through which community members could report exposures and obtain reliable information.
- Newly established collaborative relationships made this proactive approach possible.
- Reports of potential exposures received by the PC were triaged and escalated to public health agencies, facilitating timely environmental assessments and responses.

Conclusion

- This case series highlights the advantages of incorporating the regional PC into local disaster surveillance and response.
- Ongoing efforts to strengthen partnerships with local, state, and federal agencies will enhance future threat mitigation efforts.