

Understanding evidence-based lead mitigation: Is the lead mitigation advice and strategies being communicated to citizens evidence-based?

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Background and Hypothesis: The CDC has declared that there is no safe blood lead level for a child, but still approximately 37 million homes are lead-contaminated of which 4 million are home to small children. Lead abatement is an expensive strategy to remove all lead hazards rendering a home lead-free. Many of these lead-contaminated homes are in lower socioeconomic areas which makes lead abatement nearly impossible. Given the expense of lead abatement, low-cost interim controls are needed to reduce lead exposure thus creating a lead-safe home. We hypothesize that updated lead mitigation strategies need pursued, and there is a large disparity of lead information disseminated between health departments.

Project Methods: Using JSTOR and Boolean criteria, we conducted a systematic literature review on evidence-based, do-it-yourself (DIY) lead mitigation strategies for sources of lead contamination. Once the literature review was completed, Qualtrics_R was used to quantitatively and qualitatively evaluate the 50 state health department's websites for lead policy, user friendliness, and recommended lead interim controls as compared to the literature review.

Results: Results from the literature indicate that there is a lack of current information regarding new strategies for lead mitigation. Research prior to the year 2000 shows that cleaning flat surfaces by wet mopping, washing hands frequently, mulching, removing shoes before entering the home, and painting over deteriorating paint significantly reduces lead accumulation in the home. Preliminary results from the website review found that there is no baseline of uniform information being distributed, and evidence-based practices are not included for each state health department.

Potential Impact: The lack of continuity nationwide for lead mitigation showcases that families are not receiving all of the information that research has to offer to help keep their homes safe. This research indicates that there is a need for national lead policies and recommendations, so each family in the U.S. is equally informed.