

TITLE: Prevalence of Elevated Blood Levels in Children in Oregon

AUTHOR(S): Katie Moreland, NS4, Primary Presenter & Rana Halabi Najjar, PhD, RN, CPNP

PRESENTER(S): Katie Moreland, NS4, Primary Presenter & Rana Halabi Najjar, PhD, RN, CPNP

STUDENT SUBMISSION: Yes

TOPIC/TARGET AUDIENCE: Increase awareness and knowledge of health inequities related to lead exposure and of evidence-based preventive policies for public health professionals, pediatricians and staff, parents and caregivers, child-care staff, and policymakers.

ABSTRACT: Problem: Elevated blood lead levels have declined since the 1970s, however, health disparities exist with certain groups experiencing higher prevalence. In 2016, 331 children in Oregon had blood levels over the reference value of 5 micrograms/deciliter. Evidence has indicated that symptoms from low-level exposure sometimes go unnoticed or misdiagnosed. Adverse effects of lead exposure include decreased IQ, decreased academic achievement, increased behavior problems, and increased risk of violence and delinquency. Additionally, loss of economic productivity due to reduced cognitive potential from childhood lead exposure ranges from \$45-\$60 billion dollars. Aim: The purpose of this research is to provide evidence-based practices on prevention and treatment of elevated blood lead levels. Approach: Two electronic databases (PubMed & CINAHL) were searched using the research question: How can health care professionals address health inequities related to elevated blood levels? Implications & Conclusions: The evidence provides multiple solutions from individual education to policy level interventions. Best practices include educating high-risk groups and public health professionals, developing a more reliable screening questionnaire, fostering networks between child-care facilities and local public health authorities, and enacting policies to increase routine residential inspections.

OBJECTIVE(S): Discuss potential prevention-focused- interventions for decreasing the prevalence of elevated blood lead levels in children.

Name groups that are disproportionately affected by lead exposure.

Name adverse effects of subclinical lead toxicity in children.

Demonstrate knowledge of current Medicaid lead testing requirements for children under 72 months.
