

## Identifying Lead Poisoning Risk Factors among Non-Pregnant Adults in New York City through Motivational Interviewing Techniques

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**Abstract :** The New York City Department of Health and Mental Hygiene (NYC DOHMH) receives blood lead test results for NYC residents and conducts lead poisoning case investigations for individuals with elevated blood lead levels exposed to lead occupationally and non-occupationally. To (1) improve participant engagement, (2) aid the identification of potential lead sources, and (3) better tailor recommendations to reduce lead exposure, Motivational Interviewing (MI) techniques were incorporated during risk assessment interviews of non-pregnant adults by DOHMH's Adult Lead Poisoning Prevention (ALP) Program. MI is an evidence-based counselling method used in clinical settings that have been effective in promoting behavior change by resolving ambivalence and enhancing motivation in treating both physiological and psychological health conditions. The incorporation of MI techniques in the ALP risk assessment interview was effective in improving the identification of lead sources for non-pregnant adult cases, thus, allowing for the opportunity to better tailor lead poisoning prevention recommendations. The embedding of MI cues in the ALP risk assessment interview also significantly increased engagement in the interview process, resulting in approximately 50 more interviews conducted per year and a decrease in interview refusals during case investigations. Additionally, the pre-MI interview completion rate was 57%, while the post-MI Interview completion rate was 68%. We recommend MI techniques to be used by other lead poisoning prevention programs during lead poisoning investigations in similar diverse populations.

**Keywords :** lead poisoning prevention, motivational interviewing, behavior change, lead poisoning risk factors, self-efficacy

**Conference Title :** ICEBESE 2023 : International Conference on Environmental, Biological, Ecological Sciences and Engineering

**Conference Location :** Barcelona, Spain

**Conference Dates :** August 10-11, 2023