Abstract:

The aim of this study is to determine the association between length of time in the United States (US) with blood lead (BPb). This cross-sectional study includes 1580 women of childbearing age (15-45 years) and 5933 men and women (≥15 years) from the 2013-2016 United States National Health and Nutrition Examination Survey. We used linear regression models adjusted for race/ethnicity, education, blood cotinine, age, sex (as appropriate) and accounted for complex survey design. Women of childbearing age who have lived 0-4 years in the US have, on average, a 43% (95% confidence interval (CI): 31%, 56%) higher BPb compared to women born in the US. Corresponding results for all adults and adolescents was 40% (95% CI: 28%, 51%). Similar, statistically significant, results were observed for other time periods (5-9 years, 10-19 years, and ≥20 years); the magnitude of the association decreased with increasing time in the US. Higher BPb was also significantly associated with Asian (vs. white), lower education, higher age, and male (vs. female). This study provides additional evidence that newcomers to the US may be a population at higher risk of elevated BPb and resulting disparities.

Host: Dr. Ellen Wells