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Mercury Exposures among New York State Residents, 2001-2002

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Mercury is an element found in the environment. It may present itself in three forms: metallic or elementary form, inorganic compounds, and organic compounds. Exposure to any one of these forms may cause adverse health affects. Those populations most vulnerable if exposed are pregnant women (fetal development), young children, the elderly, and persons with a sensitive immune response to metals. This study is a descriptive analysis of mercury exposure in New York State residents. The goal of the study was to identify the most common sources of mercury exposures, focusing on blood mercury levels (BMLs) for the years 2001 and 2002. We used data from the NYSDOH Heavy Metal Registry (HMR) and conducted our analyses in the statistical software package SAS. There were 3,204 individuals reported to the HMR. Of these, 65% had BMLs $\leq$ 15ng/mL, 20% had BMLs between 15 and < 25 ng/mL, and 15% had BMLs $\geq$ 25ng/mL. We found that fish/seafood consumption, dental amalgam fillings, and environmental contamination from the collapse of the World Trade Center in New York City were the three most common sources of mercury exposures reported by the individuals during that time period. These results suggest the need for continued public health surveillance and education on mercury exposure in New York State.