

poster ABSTRACT



TITLE

Assessment of Methylmercury Exposure in Wisconsin

THEME

Advance Environmental Public Health Science and Research

KEYWORDS

methylmercury, fish, consumption

BACKGROUND AND OBJECTIVE(S)

The Wisconsin Department of Health and Family Services conducted a study of the extent to which Wisconsin residents are exposed to methylmercury (MeHg) through the consumption of fish and seafood. Emerging evidence of an increased cardiovascular risk as a result of elevated MeHg levels prompted the need for a study that includes a cross-section of all Wisconsin adults.

METHOD(S)

A survey of approximately four thousand Wisconsin residents regarding fish consumption habits has been completed through a module added to the 2004 Wisconsin Behavioral Risk Factor Survey (BRFS). Additionally, 2,000 hair samples are being collected for mercury analysis. Hair donors will also complete a fish consumption survey comparable to the BRFS module.

RESULT(S)

Based on preliminary analysis of 981 hair samples, mercury levels range from 0.019 to 9.45 micrograms per gram and exceed 1 ppm in 20% of men and 16% of women. The average mercury level is 0.51 ppm in women and 0.75 ppm in men. The number of fish and seafood meals ranges from 0 to 48 and with an average of 7.56 meals. Among participants who reported eating fish or seafood, those who include sport-caught fish in their diets had a higher average mercury level than those who did not include sport-caught fish. Individuals eating more than five meals per month that include sport-caught fish had an average mercury level of 2 ppm. Those that ate the same number of meals per month but did not include sport-caught fish had an average mercury level of 0.72 ppm.

DISCUSSION/RECOMMENDATION(S)

This study was funded by Wisconsin Focus on Energy Environmental Research Program, www.focusonenergy.com and CDC National Environmental Public Health Tracking initiative.

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