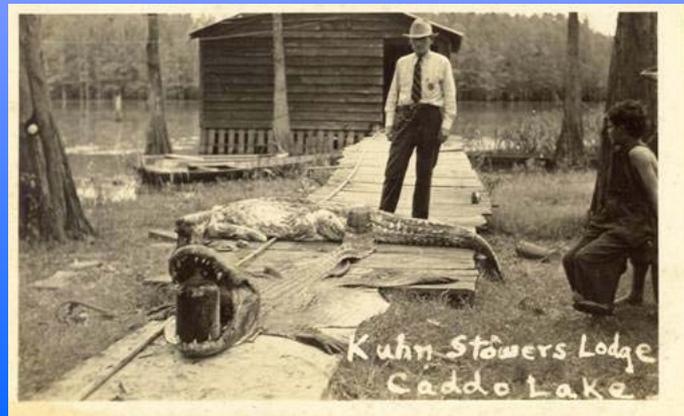


Caddo Lake Area Mercury Exposure Investigation

Texas Department of State Health Services
Exposure Assessment & Surveillance Group
May 3, 2005



Why Are We Here?

To explain our findings from the mercury exposure investigation conducted in May 11-15, 2004



Why Did We Do the Exposure Investigation?

In response to community concerns about exposure to mercury through fish consumption.

(i.e. subsistence fishing)

Exposure Investigation

With the help of the Caddo Lake Institute, Mayor Holder, and community members; we were able to collect blood samples from 71 participants.



Exposure Investigation Results

total participants - 71

37 ♀ females -18 to 88 years of age

34 ♂ males - 8 to 86 years of age

fish/frog consumption:

catfish (88%), crappie (85%), bream (68%), **bass** (49%)

goggle-eye (21%), frog (15%), **drum** (13%), gar (6%)

buffalo (6%), white bass (3%), pickerel (1%), yellow bass (1%)

Exposure Investigation Results

71 participants:

68 - ate fish from Caddo Lake

3 – do not eat fish or have not in \approx 4 years

Blood mercury (Hg) levels:

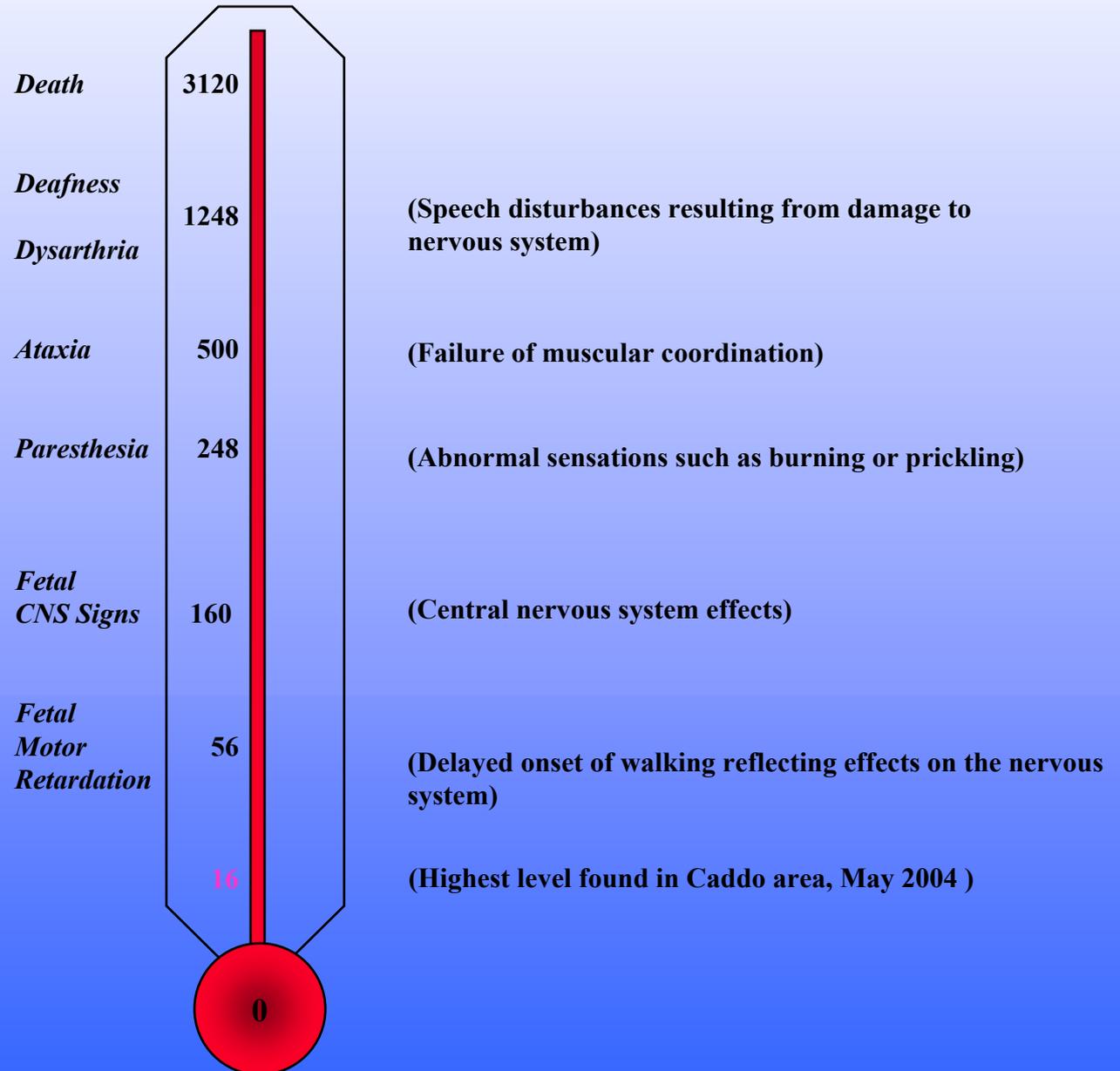
14 (20%) - > 5 micrograms per liter ($\mu\text{g/L}$) or ppb

57 (80%) - ≤ 5 micrograms per liter ($\mu\text{g/L}$)

Hg range - <2.0 to $15.9 \mu\text{g/L}$ for all participants



Health Effects of Methylmercury - Blood Hg Levels ($\mu\text{g/L}$)



What Do These Results Mean?

Blood mercury levels were higher than the general population, but lower than expected for people that eat fish with known contamination.

Blood mercury of all participants were below levels associated with adverse health effects in adults.

Females of childbearing age had blood mercury below the levels associated with adverse effects in children exposed in utero.

Eating a variety of fish may be an effective way to manage exposure to mercury.

Recommendations

Limit amount of Largemouth Bass and Freshwater Drum eaten from Caddo Lake to no more than:

two 8-ounce servings per month - adults

two 4-ounce servings per month - children

Continue to evaluate fish tissue sampling data from Caddo Lake as it becomes available.



For Additional Information:
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