Environmental Sampling

About

Many people living in Louisiana catch fish and shellfish. If people eat fish or shellfish harvested from certain water bodies, then they may have a greater risk of coming in contact with mercury. Mercury is a chemical element that is found in nature. When mercury enters the environment, it can pollute lakes, rivers, streams or ponds. Over time, mercury can build up in the bodies of the fish or shellfish that live there. When fish or shellfish that contain mercury are caught and eaten, mercury can get into our bodies and may put people's health at risk.

The Louisiana Department of Environmental Quality (LDEQ) samples fish collected from Louisiana waterbodies to determine the extent of the problem in our state. Guidance for limiting or avoiding certain fish from certain water bodies or types of water bodies (fish consumption advisories) are issued when harmful chemicals are found at levels that may impact the public's health.

The <u>Protocol for Issuing Public Health Advisories for Chemical Contaminants in Recreationally Caught Fish and Shellfish</u> contains detailed information about how fish advisories are developed in Louisiana. See also, the <u>Environmental Sampling</u> webpage for more information.

About the Measures

These data include measured mercury concentrations in fish tissue for over 500 locations statewide, and are available for a variety of species. Some locations have periodic data going back to 1994. These data span through 2010, when the state's Mercury Program was defunded. These data (1994-2010) are considered a legacy dataset. LDEQ resumed limited sampling in 2016. New data from 2016 to the present are planned to be added to the Health Data Portal when they become available.

Data are presented by species and sampling location. An arithmetic mean of contaminant concentrations in wet weight is displayed for each species at each sampling site. Mercury (Hg) concentrations are provided in the unit of milligrams per kilogram (mg/kg). Data are mapped by the following screening cut-points:

- <0 .23 mg/kg below screening value
- <0.23 0.69 mg/kg exceeds screening value for sensitive populations, and
- >0.69 mg/kg exceeds screening value for both sensitive and general populations

About the Data

For questions regarding mercury data please contact LDEQ by emailing DEQ - Water Quality

The state agencies review data and collect edible fish/shellfish tissues (muscle tissue fillets without skin, bones, or organs) to decide to issue an advisory. Fish tissue samples submitted for analyses may represent individual specimens or a composite of individuals. Target species will include all species commonly caught and eaten by people who fish in area. The laboratory analysis of fish and shellfish

tissue for chemical contaminants is performed according to applicable state and federal quality assurance procedures. LDEQ works to ensure the accuracy, precision, and reliability of the data generated, as well as the use of the department-approved methodologies in the generation of the data.

Disclaimer

Data are intended to spur further research and should be used only as a starting point to understanding how the environment and other contributing factors may be connected to disease. Datasets presented on this site are intended to answer some basic questions, but should ultimately lead to further inquiry and more detailed study.

Data limitations should be noted if conducting exploratory ecological studies with these data. Limitations may include data gaps, reporting discrepancies (for example, a disruption of reporting or instrument recording following hurricanes) and insufficient data on all potentially confounding factors. There are numerous additional factors which may contribute to disease onset. These include genetics, access to health care, existing health conditions, medicines, other chemical substances we come into contact with or ingest, nutrition, route and duration of exposure, level of activity, level of stress, and many others.

Responsible use of this data therefore requires exercising caution when drawing conclusions based solely on views of the limited available data. Any perceived relationship, trend, or pattern apparent in the data should not be interpreted to imply causation; may in fact be unrelated; and should be regarded as preliminary, and potentially erroneous, until more in-depth study and if applicable, statistical evaluation, can be applied. The LDH Bureau of Health Informatics and Environmental Public Health Tracking Program cannot guarantee the completeness of the information contained in these datasets and expressly disclaim liability for errors and omissions in their content.

Data Sources

Louisiana Department of Environmental Quality

Additional Information

- LDH Frequently Asked Questions about Mercury in Fish
- LDH Current Mercury Advisories
- LDH Eat Safe Fish
- U.S. EPA and FDA Advice About Eating Fish (PDF)
- EPHT Environmental Sampling

Questions

• Email: <u>healthdata@la.gov</u>