



## *Analysis of U.S. Fish Consumption Rates Based on NHANES 2003-2010*

### Summary

EPA is announcing a revised, peer reviewed analysis of fish consumption rates, entitled *Analysis of U.S. Fish Consumption Rates Based on NHANES 2003-2010*. EPA performed its original analysis in 2000.

Fish consumption rates included in this revised analysis reflect two significant changes to the methodology: 1) new data from Centers for Disease Control and Prevention's (CDC) National Health and Nutrition Examination Survey (NHANES), survey cycles from 2003 to 2010, and 2) new, more accurate state-of-the-science analyses.

### Background

In October 2000, EPA published a document titled, *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health*. This document presented EPA's recommended methodology for developing ambient water quality criteria as required under Section 304(a) of the Clean Water Act (CWA).

Since then, more recent data indicate that fish consumption rates in the U.S. have increased. In addition, new statistical analytical methods have been developed. As a result, EPA conducted a new analysis of fish consumption rates.

### What's Different About This Analysis?

#### *New Data*

The new analysis uses the most recent available data from NHANES 2003-2010. NHANES is a continuous survey that collects data on the health and nutritional status of the U.S. population. Each two-year cycle is designed to be representative of the general U.S. population.

#### *New Methodology*

The new peer reviewed methodology is partly based on a method developed in the mid-2000s by the National Cancer Institute (NCI), to estimate usual intake of episodically consumed foods. This statistical method provides estimates of usual daily intake rates representing the long-term average grams of fish consumed per day. EPA modified the NCI method in order to accommodate a national analysis of the NHANES 2003-2010 data.

#### *Broader Analysis*

The new analysis includes estimates of fish consumption rates for more types of fish and subpopulations. This enables users of the data to make more accurate estimates of human exposure based on the population under study and the kinds of fish they consume.

New fish groups include marine fish, freshwater fish, estuarine fish, and several combinations of these fish types.

Subpopulations for which estimates are now available include youth (1 to 20 years), adults 21 years old or more, women of childbearing age (13 to 49), as well as estimates by gender, race, ethnicity, and income.

### For More Information

Visit EPA's website at

<http://water.epa.gov/scitech/swguidance/fishshellfish/fishadvisories/technical.cfm>.

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