



## *Survey Evaluating Effectiveness of Mississippi Delta Fish Advisories*

### Summary

In 2009, in cooperation with the Mississippi Department of Environmental Quality (MDEQ) and the U.S. Food and Drug Administration (FDA), EPA conducted a survey to evaluate the effectiveness of the regional Mississippi Delta fish advisory issued by the State in 2001. The study concluded that although overall awareness of the advisory was low (28 percent), a very high percentage of those who were aware of it (91 percent) followed the fish consumption advice.

The survey revealed that 28 percent of all respondents and 46 percent of fishermen reported being aware of a warning or advisory about eating wild-caught fish from the Mississippi Delta. Respondents reported some changes in fish consumption practices since learning about the advisory, and also reported limited changes in fish preparation and cooking practices after learning about the advisory.

### Background

The MDEQ completed a Mississippi Delta fish tissue study in 2001. Study results indicated that concentrations of DDT and toxaphene exceeded levels of concern set by the State of Mississippi at all study sites and for several fish species sampled. Based on the results of the study, the State determined that a regional Mississippi Delta fish consumption advisory was warranted for several species of fish. Later in 2001, under a grant from EPA, MDEQ issued a still-standing regional Delta advisory from Memphis to Vicksburg because of high levels of DDT in fish harvested from Delta waters.

Also in 2001, MDEQ initiated an extensive outreach campaign to make people aware of the advisory. The outreach campaign included posting signs at fishing access points, fish

markets, and tackle shops; an extensive public media campaign involving news conferences, news releases, and radio and television spots; and door-to-door canvassing in some communities.

EPA conducted its survey in 2009 to understand the extent to which the Delta population who catches and/or eats fish from the Delta is aware of the advisory, and for those who are aware, the changes they have made in the types of fish they catch and eat since hearing of the advisory. The recommended study design for the survey was developed by an EPA workgroup and is detailed in a 2007 report, *Recommended Study Design for a Survey to Evaluate the Effectiveness of Mississippi Delta Fish Advisories*.

EPA conducted more than 400 interviews of fisherman who consumed fish from the lakes and rivers and more than 600 telephone interviews. Random selection statistical methods were used to select the water bodies and households for the survey.

### What are the results?

There are three key findings of the survey:

**(1) Twenty-eight percent of all respondents and forty-six percent of fishermen reported being aware of a warning or advisory about eating wild-caught fish from the Mississippi Delta.**

The level of awareness of the advisory varied for different sub-populations examined in the study, suggesting that the advisory may be more effective at reaching some populations than others.

Gender, race, education and proximity to a major media market affected awareness. Few respondents exceeded the advisory recommendations of two meals per month of

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carp, gar, large catfish, and buffalo fish. Ten percent of respondents who consume wild-caught fish from the Mississippi Delta consumed more than the advisory recommendations during the past year.

Ninety-one percent of aware respondents reported that they usually follow the advisory recommendations, and 84 percent said it is not a problem at all to limit consumption of fish included in the advisory.

***(2) Respondents reported some changes in fish consumption practices since learning about the advisory.***

Since learning about the advisory, 33 percent of buffalo fish consumers reported that they stopped eating buffalo fish and 54 percent reported eating less.

Since learning about the advisory, 52 percent of large catfish consumers reported that they stopped eating large catfish and 33 percent reported eating less.

***(3) Respondents reported limited changes in fish preparation and cooking practices since learning about the advisory.***

Six percent of respondents reported changing how they prepare or cook fish as a result of the fish advisory. The most common change made was frying fish less often or using a different cooking method instead of frying.

**For More Information**

To view the survey results and the report about the survey, entitled *Survey on the Awareness and Effectiveness of the Mississippi Delta Fish Consumption Advisory*, visit EPA's website at <http://water.epa.gov/scitech/swguidance/fishshellfish/fishadvisories/technical.cfm>.

You may also contact Jeff Bigler at (202) 566-0389 or [bigler.jeff@epa.gov](mailto:bigler.jeff@epa.gov).

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