Attachment 10. New York State Department of Health Results Communications

NOTE: The New York State Department of Health program will work with their respective ethics sub-committees and ATSDR to improve and revise these letters. ATSDR and the state program will take into consideration current guidelines via subject matter experts on the communication of results and potential follow-up with biomonitoring program respondents.

Attachment 10a. Sample letter reporting individual metal results to a participant (Flesch-Kincaid Reading Level: grade 9.4)

NEW YORK
state department of
HEALTH

Nirav R. Shah, M.D., M.P.H.
Commissioner

Sue Kelly
Executive Deputy Commissioner

Alan Fisherman
1234 Main Street
Syracuse, NY 12303

Dear Alan Fisherman:

Thank you for taking part in the Biomonitoring of Urban Anglers consuming fish from the Great Lakes Basin's Onondaga Lake Project. The project is measuring contaminants in people who eat fish Lake Ontario and tributaries; including Seneca River, Oswego River and Onondaga Lake. We are writing to share your results for lead, cadmium and mercury. These are the first set of results that are complete. We will provide the additional test results to you as soon as possible (in about six months).

Your results are shown in the table below along with the laboratory's reference level and the New York State Department of Health (NYS DOH) follow-up levels. Most people will test below the reference level. Details about the different reference levels are provided on page 2.

Name: **Date of Sample Collection:**

Metal Test	Your result	Reference Level*	Follow-up Level**
Blood Lead	1.5 µg/dL	Less than 5 µg/dL	15 µg/dL and higher (male) 10 µg/dL and higher (female)
Blood Cadmium	0.3 µg/L	Less than 2.5 µg/L	10 µg/L and higher
Blood Mercury	1.5 µg/L	Less than 10 µg/L	60 µg/L and higher
Urine Mercury	Not Detected	Less than 6.0 µg/L	20 µg/L and higher

µg/L = micrograms per liter. One microgram per liter is 1 part-per-billion, equivalent to about one drop of a liquid substance in an Olympic-size swimming pool.
µg/dL = microgram per deciliter (for lead). There are 10 deciliters in one liter. One microgram per deciliter is 10 parts-per-billion, equivalent to about ten drops in an Olympic-size pool.

All tests were performed by the Trace Elements Laboratory at the Wadsworth Center, NYS DOH, Empire State Plaza, PO Box 509, Albany, NY 12201.

Additional information for this Table is provided on page 2.

Table Notes:

* The reference level for **blood lead** (<5 µg/dL) is based on the national Centers for Disease Control and Prevention's (CDC's) new definition of "elevated" for young children, as well as guidelines for pregnant women. Many clinical laboratories use this same reference range for all adults. For more information, see http://www.cdc.gov/nceh/lead/ACCLPP/acclpp_main.htm.

The reference levels for **blood cadmium, blood mercury, and urine mercury** are based on data from biomonitoring tests done by the CDC National Health and Nutrition Examination Survey (NHANES) (http://www.cdc.gov/exposurereport/) and the New York City Health and Nutrition Examination Survey (NYC HANES) (http://www.nyc.gov/html/doh/html/data/nyc-hanes.shtml). These surveys estimate that about 95 to 98 people out of every 100 people in the general population have levels within these reference ranges.

** These are the levels that currently result in follow-up by the NYS DOH Heavy Metals Registry. http://www.health.ny.gov/environmental/workplace/heavy_metals_registry/index.htm#registry

UTA means unable to analyze. The lab could not test the sample because there was not enough sample to do the test or for other reasons.

If your test results were high enough to require follow-up by the NYS DOH (Heavy Metals Registry Program), the NYS DOH has already contacted you either by mail or with a phone call. If you named a health care provider to whom you wanted the results to be sent, we are sending a copy of this letter and your test results to that person whose name and address are listed below (see cc:).

We will be happy to answer any questions you have. However, speak to your health care provider if you have concerns about your own health as it relates to these test results. We are currently reviewing the study results to learn more about eating fish and levels of metals. We will share information about these findings when they are available. You can also find information about the project on our website http://www.health.ny.gov/environmental/outdoors/fish/health_advisories/gl_biomonitoring.htm.

If you have any questions about the project or your results, please contact NAME**, Project Coordinator, at ###-###-#### or xxxx@health.ny.gov**. If you have questions specifically about the laboratory testing procedure for metals, please contact Dr. Patrick Parsons, Chief, Laboratory of Inorganic and Nuclear Chemistry, Wadsworth Center at 518-474-7161. Thank you again for your participation.

Sincerely,

Syni-an Hwang, Ph.D., Director
Bureau of Environmental & Occupational
Epidemiology, Center for Environmental Health

cc: Dr. John Doe
enc: Metals Results Information Sheet

Metals Results Information Sheet

This project measured lead, cadmium, and mercury to learn about levels of these metals in people who eat fish caught from Onondaga Lake and nearby waters. Most people are exposed to very small amounts of lead, cadmium and mercury which occur naturally in air, water, rocks and soil. However, large amounts of these metals are sometimes released into the environment from a variety of industrial activities. Once released, they remain in the environment. Because laboratory testing can detect extremely small amounts of these chemicals, it is common to find them in people.

How are people exposed to these metals?

Lead: The most frequent exposures to lead for adults are from old lead-based paint used to paint steel structures and homes until 1978. Adults can be exposed when this paint is disturbed by construction activities. Some hobbies involve lead exposure such as shooting in indoor ranges, making your own bullets or fishing sinkers, electronics recycling, and making stained glass or pottery. Some older homes may have water pipes containing lead or lead solder which can contaminate household water. Some products used as spices, cosmetics, traditional or herbal remedies may also contain lead.

Cadmium: Sources of cadmium exposure include smoking cigarettes and eating foods containing cadmium. Low levels of cadmium are found in all foods, but the highest levels are in shellfish, liver, and kidney meats. Cadmium has also been found in some metal jewelry. Exposures to cadmium can occur in certain jobs such as battery manufacturing, working with machines that make metal or plastic products, or working with paints that contain cadmium. Welders and jewelers can be exposed to cadmium-containing materials.

Mercury: Exposure to mercury in a form called methylmercury most often comes from eating fish. Fish that live longer and eat other fish tend to have more methylmercury. Greater amounts of methylmercury are found in larger freshwater fish like largemouth bass, smallmouth bass, walleye, and pike, and certain ocean fish such as swordfish, shark, king mackerel, and tilefish.

Exposure to a type of mercury called elemental mercury most often occurs from breathing air containing elemental mercury vapor. This occurs in some jobs and may also occur when devices containing elemental mercury, such as thermostats or thermometers, break and release mercury droplets and mercury vapor into the air. Small amounts or mercury vapor are also released from dental amalgams (fillings) that contain elemental mercury. Exposures to inorganic mercury salts may occur with the use of products containing mercury (e.g., skin lightening creams and some herbal medicine products).

For more information about lead, cadmium and mercury, please see these webpages below, with links to additional information. For paper copies, please call name at xxx-xxx-xxxx.

Lead: http://www.health.ny.gov/environmental/workplace/heavy_metals_registry/lead.htm and http://www.health.ny.gov/environmental/lead/
For more information about how to prevent exposures to lead-based paints: http://www2.epa.gov/lead/protect-your-family;
Cadmium: http://www.health.ny.gov/environmental/workplace/heavy_metals_registry/cadmium.htm
Mercury: http://www.health.ny.gov/environmental/chemicals/hsees/mercury/mercury_exposure_levels.htm

I am concerned I might be exposed to contaminants from eating locally caught fish. Should I stop eating fish?

No. Fishing is fun and fish are an important part of a healthy diet. Fish contain high quality protein, essential nutrients, healthy fish oils, and are low in saturated fat. However, some fish contain chemicals at levels that may be harmful to health.

To help people make healthier choices about which fish to eat, the NYS DOH gives advice about eating sportfish (fish you catch). People can get the health benefits of fish and reduce their exposures to chemicals, or contaminants, by following the NYS DOH advice. The advisories tell people about the contaminants of concern, which fish to avoid, and how to reduce their exposures to contaminants in the fish they do eat. **A brochure with health advice on eating fish you catch is provided in this mailing.**

See this website for additional information:
http://www.health.state.ny.us/environmental/outdoors/fish/fish.htm

If you have any questions about the project or your results, please contact NAME **, Project Coordinator, at XXX-XXX-XXX0 or xxxx@health.ny.gov**.

Attachment 10b. Sample letter reporting individual chemical, cholesterol and triglyceride results to a participant (Flesch-Kincaid Reading Level: grade 9.9)

NEW YORK
state department of
HEALTH

Nirav R. Shah, M.D., M.P.H.
Commissioner

Sue Kelly
Executive Deputy Commissioner

Dear Alan Fisherman:

Thank you for taking part in the Biomonitoring of Urban Anglers consuming fish from the Great Lakes Basin's Onondaga Lake Project. The project is measuring contaminants in people who eat fish from Onondaga Lake and nearby waters. We are writing to share your results for the second and final set of chemicals. Your results are on the next page along with comparison levels from a national sample. If the comparisons suggest your levels are higher than average, it does not mean you will develop disease or have any health effects. Scientists are still learning what the impact of these chemicals is on human health.

We also tested your blood for total cholesterol and triglycerides, which tell us the amount of fat in your blood sample. We need to know the amount of fat because some chemicals are contained in body fat (lipid). Your chemical tests on page 2 were adjusted for the fat levels in your sample, shown on page 3.

If you named a health care provider to whom you wanted your results sent, we are sending a copy of this letter and your results to that person whose name is listed below (see cc:). We will be happy to answer any questions you have. However, speak to your health care provider if you have concerns about your own health as it relates to these test results. We are currently reviewing the study results to learn more about eating fish and levels of these chemicals. We will share information about these findings when they are available. You can also find information about the project on our website http://www.health.ny.gov/environmental/outdoors/fish/health_advisories/gl_biomonitoring.htm.

If you have any questions about the project or your results, please contact NAME**, Project Coordinator, at ###-###-#### or xxxx@health.ny.gov**. If you have questions specifically about the laboratory testing procedures, please contact Dr. Patrick Parsons, Chief, Laboratory of Inorganic and Nuclear Chemistry, Wadsworth Center at 518-474-7161. Thank you again for your participation.

Sincerely,

Syni-an Hwang, Director
Bureau of Env & Occup Epidemiology

cc: Dr. John Doe

Collection date:
Report date:

[NAME AND ADDRESS]

Chemical or metabolite	Your result, lipid adjusted	Comparison values (ng/g of lipid)*, lipid adjusted	
		Middle level	**95th percentile**
total PCBs		TBD	
DDT		< LOD	20.7
DDE		233	1990
hexachlorobenzene (HCB)		15.1	29.0
Mirex		< LOD	15.4
Oxychlordane		11.4	39.2
trans-nonachlor		17.3	74.7

* The comparison values are reported by the National Health and Nutrition Examination Survey (NHANES) conducted by the Centers for Disease Control and Prevention.
Middle level: Half the adults tested in the U.S. had a result below this level and half above.
95th percentile: 95% of adults tested in the U.S> had a result below this level.

Measurements are given as nanogram per gram (ng/g) of lipid. To give you an idea of the relative size, one nanogram per gram would be like 1 inch in 16 miles, 1 minute in 2 years, or 1 cent in $10,000. "Of lipid" means that the level of the chemical reported here takes account of the amount of lipids (fat) in the blood sample.

UTA: Unable to analyze. The lab could not test the blood sample because clots formed or there was not enough blood to do the test.
LOD: Level of detection. If your result is reported as "below the limit of detection (LOD)" that means that the level is below the level that the laboratory can accurately measure

Lipid results:
If you discuss your cholesterol results from this report with your physician, please note that you were not asked to fast before the cholesterol test.

Measurement	Your results	Range*	
		Borderline high	**High**
Cholesterol (non-fasting)		200-239 mg/dL	>240 mg/dl
Triglycerides		150-199 mg/dL	200-499

			mg/dL

*The range of levels in adults from the American Heart Association.
Cholesterol and triglycerides in blood are reported in *micro*grams per deciliter (µg/dL)

If you would like more information about any of these tests please call XXX-XXX-XXXX and ask for _____.

Tests were performed by the Wadsworth Center, New York State Department of Health.