

Attachment 10b. Results Package Examples

NOTE: Wisconsin will work with its ethics sub-committee and ATSDR to improve and revise these letters. ATSDR and Wisconsin will take into consideration current guidelines via subject matter experts on the communication of results and potential follow-up with biomonitoring program respondents.

Letter 1

Full results letter to participants whose results do not exceed action levels



Scott Walker
Governor

DIVISION OF PUBLIC HEALTH

1 WEST WILSON STREET
PO BOX 2659
MADISON WI 53701-2659

Linda Seemeyer
Secretary

State of Wisconsin
Department of Health Services

Telephone: 608-266-1251
Fax: 608-267-2832
TTY: 711 or 800-947-3529

Date

Name

Address

City, State Zip Code

Dear *Name*:

Last summer, you agreed to be part of the Milwaukee Angler Project. We tested your blood and urine for chemicals that are often found in fish.

We are pleased to tell you that your test results for mercury, lead, cadmium, hexachlorobenzene, and DDT/DDE were normal. And, your other test results are like those of people your age in the United States.

The second and third pages of this letter have your test results. The first column gives the name of each chemical that we looked for in your blood and urine. Your test results are in the second, or blue column, under "Your Test Results".

The orange, or third column, under "Study Results" has the results for the other project participants. We gave you these test results so you can compare your results to theirs. The results are given as a range, meaning the lowest to the highest test results for the group are shown in this column.

We also thought you might like to know the test results of people around the country who have been in similar studies. Their blood and urine were also tested for chemicals. Their results are in the purple, or fourth, column under "U.S. Results." The results are shown as the median (half of the people tested in the U.S. had a level below this number) and 95th percentile (95% of the people tested in the U.S. had a level below this number).

The fourth page has a table labeled "Units". It gives the units of measurement for each chemical. If you take your results to your doctor, he or she will need to know the units for each chemical your blood and urine were tested for.

There is a lot of information in this letter. If you have questions, please call the Project Coordinator, Brooke Thompson, at 608-261-9325.

Thank you very much for being part of this important study, we really appreciate your time and effort.

Jon Meiman, MD
Chief Medical Officer and State Occupational & Environmental Disease Epidemiologist
Wisconsin Division of Public Health



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Test Results - Tests for the chemicals were done on blood or urine. Some chemicals are easier to find in blood and some are easier to find in urine.

Test	Your Test Results	Range	
		Study Results	U.S. Results
Metals			
Lead			1.05 – 3.36
Manganese			8.96 – 16.7
Mercury			0.97 – 5.75
Cadmium			0.32 – 1.55
Selenium			129 - 163
Metals were measured in your blood.			
PFAS (Perfluoralkyl Substances)			
Total PFAS			11.1 – 31.2
PFAS were measured in your blood.			
PCBs (Polychlorinated Biphenyls)			
Total PCBs			114 – 439
PCBs were measured in your blood.			
Persistent Pesticides			
Oxychlorthane			11.4 – 39.2
<i>p,p'</i> -Dichlorodiphenyltrichloroethane (DDT)			Not detectable – 20.7
<i>p,p'</i> -Dichlorodiphenyldichloroethene (DDE)			233 – 1990
<i>o,p'</i> -Dichlorodiphenyltrichloroethane (DDT)			Not measured
Hexachlorobenzene			15.1 – 29.0
Mirex			Not detectable – 15.4
Persistent pesticides were measured in your blood.			
PAHs (Polycyclic Aromatic Hydrocarbons)			
Total PAHs			7.78 – 52.1
PAHs were measured in your urine.			



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Units of Measurement

This table gives the “units of measurement” for each of the chemicals. For example, cholesterol is measured in mg/dL (milligrams of cholesterol per deciliter of blood). If you give your results to your doctor, he or she will want to know these units of measure.

Test	Units of Measurement
Metals	
Lead	µg/dL
Manganese	ng/mL
Mercury	µg/L
Cadmium	µg/L
Selenium	µg/L
PFAS (Perfluoralkyl Substances)	
Total PFAS	µg/L
PCBs (Polychlorinated Biphenyls)	
Total PCBs	ng/g lipid
Persistent Pesticides	
Oxychlorthane	ng/g lipid
<i>p,p'</i> -Dichlorodiphenyltrichloro-ethane (DDT)	ng/g lipid
<i>p,p'</i> -Dichlorodiphenyldichloro-ethene (DDE)	ng/g lipid
<i>o,p'</i> -Dichlorodiphenyltrichloro-ethane (DDT)	ng/g lipid
Hexachlorobenzene	ng/g lipid
Mirex	ng/g lipid
PAHs (Polycyclic Aromatic Hydrocarbons)	
Total PAHs	µg/g creatinine



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DIVISION OF PUBLIC HEALTH

1 WEST WILSON STREET
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Linda Seemeyer
Secretary

State of Wisconsin
Department of Health Services

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Letter 2

Action level exceedances letter sent to participants with elevated blood results for cadmium, lead, mercury, hexachlorobenzene, or DDT/DDE



Scott Walker
Governor

DIVISION OF PUBLIC HEALTH

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Date

Name

Address

City, State Zip Code

Dear *Name*:

Last summer, you agreed to be part of the Milwaukee Angler Project. We tested your blood and urine for chemicals that are often found in fish.

We found that your blood level of (*cadmium/lead/mercury/HCB/DDT&DDE*) is (*.....{μg/dl, μg/l}*). This means that your (*cadmium/lead/mercury/HCB/DDT&DDE*) level is higher than most people. This does not mean that you are sick or will get sick. But we do strongly recommend that you visit your doctor and take this letter with you.

I have enclosed a fact sheet with more information about (*cadmium/lead/mercury/HCB/DDT&DDE*) and your health.

We will send your other tests as soon as they are available. If you move, please let us know so we can send your results to your new address.

There is a lot of information in this letter. If you have questions, please call the Project Coordinator, Brooke Thompson, at 608-261-9325.

Thank you for being part of this important study. Your time and effort are greatly appreciated.

Sincerely,

Jon Meiman, MD
Chief Medical Officer and State Occupational & Environmental Disease Epidemiologist
Wisconsin Division of Public Health



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Letter 3

Full results letter for participants who previously received Letter 2



Scott Walker
Governor

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Secretary

State of Wisconsin
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Date

Name

Address

City, State Zip Code

Dear *Name*:

Last summer, you agreed to be part of the Milwaukee Angler Project. We tested your blood and urine for chemicals that are often found in fish.

Earlier, we sent you a letter because your (*cadmium/lead/mercury/HCB/DDT&DDE*) level was higher than most people. The letter recommended you make an appointment your doctor for medical advice. A copy of that letter is also included. If you have not seen your doctor yet, please make an appointment and take this information with you.

The second and third pages of this letter have all of your test results. The first column gives the name of each chemical that we looked for in your blood and urine. Your test results are in the second, or blue column, under "Your Test Results".

The orange, or third column, under "Study Results" has the results for the other project participants. We gave you these test results so you can compare your results to theirs. The results are given as a range, meaning the lowest to the highest test results for the group, are shown in this column.

We also thought you might like to know the test results of people around the country who have been in similar studies. Their blood and urine were also tested for chemicals. Their results are in the purple, or fourth, column under "U.S. Results." The results are shown as the median (half of the people tested in the U.S. had a level below this number) and 95th percentile (95% of the people tested in the U.S. had a level below this number).

The fourth page has a table called "Units". It gives the units of measurement for each chemical. If you take your results to your doctor, he or she will need to know the units for each chemical your blood and urine were tested for.

There is a lot of information in this letter. If you have questions, please call the Project Coordinator, Brooke Thompson, at 608-261-9325.

Thank you very much for being part of this important study, we really appreciate your time and effort.

Sincerely,



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Test Results - Tests for the chemicals were done on blood or urine. Some chemicals are easier to find in blood and some are easier to find in urine.

Test	Your Test Results	Range	
		Study Results	U.S. Results
Metals			
Lead			1.05 – 3.36
Manganese			8.96 – 16.7
Mercury			0.97 – 5.75
Cadmium			0.32 – 1.55
Selenium			129 - 163
Metals were measured in your blood.			
PFAS (Perfluoralkyl Substances)			
Total PFAS			11.1 – 31.2
PFAS were measured in your blood.			
PCBs (Polychlorinated Biphenyls)			
Total PCBs			114 – 439
PCBs were measured in your blood.			
Persistent Pesticides			
Oxychlorthane			11.4 – 39.2
<i>p,p'</i> -Dichlorodiphenyltrichloroethane (DDT)			Not detectable – 20.7
<i>p,p'</i> -Dichlorodiphenyldichloroethene (DDE)			233 – 1990
<i>o,p'</i> -Dichlorodiphenyltrichloroethane (DDT)			Not measured
Hexachlorobenzene			15.1 – 29.0
Mirex			Not detectable – 15.4
Persistent pesticides were measured in your blood.			
PAHs (Polycyclic Aromatic Hydrocarbons)			
Total PAHs			7.78 – 52.1
PAHs were measured in your urine.			



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Units of Measurement

This table gives the “units of measurement” for each of the chemicals. For example, cholesterol is measured in mg/dL (milligrams of cholesterol per deciliter of blood). If you give your results to your doctor, he or she will want to know these units of measure.

Test	Units of Measurement
Metals	
Lead	µg/dL
Manganese	ng/mL
Mercury	µg/L
Cadmium	µg/L
Selenium	µg/L
PFAS (Perfluoralkyl Substances)	
Total PFAS	µg/L
PCBs (Polychlorinated Biphenyls)	
Total PCBs	ng/g lipid
Persistent Pesticides	
Oxychlorane	ng/g lipid
<i>p,p'</i> -Dichlorodiphenyltrichloro-ethane (DDT)	ng/g lipid
<i>p,p'</i> -Dichlorodiphenyldichloro-ethene (DDE)	ng/g lipid
<i>o,p'</i> -Dichlorodiphenyltrichloro-ethane (DDT)	ng/g lipid
Hexachlorobenzene	ng/g lipid
Mirex	ng/g lipid
PAHs (Polycyclic Aromatic Hydrocarbons)	
Total PAHs	µg/g creatinine



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Department of Health Services

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Letter 4

Full results letter for participants with exceedances of other chemicals



Scott Walker
Governor

DIVISION OF PUBLIC HEALTH

1 WEST WILSON STREET
PO BOX 2659
MADISON WI 53701-2659

Linda Seemeyer
Secretary

State of Wisconsin
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Fax: 608-267-2832
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Date

Name

Address

City, State Zip Code

Dear *Name*:

Last summer, you agreed to be part of the Milwaukee Angler Project. We tested your blood and urine for chemicals that are often found in fish.

Your test result for (*chemical*) was higher than most people. This does not mean that you are sick or will get sick. We recommend that you call our office or talk to your doctor to find out how to limit future contact with this chemical.

The second and third pages of this letter have all of your test results. The first column gives the name of each chemical that we looked for in your blood and urine. Your test results are in the second, or blue column, under "Your Test Results".

The orange, or third column, under "Study Results" has the results for the other participants in this project. We gave you these test results so you can compare your results to theirs. The results are given as a range, meaning the lowest to the highest test results for the group, are shown in this column.

We also thought you might like to know the test results of people around the country who have been in similar studies. Their blood and urine were also tested for chemicals. Their results are in the purple, or fourth, column under "U.S. Results." The results are shown as the median (half of the people tested in the U.S. had a level below this number) and 95th percentile (95% of the people tested in the U.S. had a level below this number).

The fourth page has a table called "Units". It gives the units of measurement for each chemical. If you take your results to your doctor, he or she will need to know the units for each chemical your blood and urine were tested for.

IF APPLICABLE: *Earlier, we sent you a letter because your (cadmium/lead/mercury/HCB/DDT&DDE) level was higher than most people. The letter recommended you make an appointment your doctor for medical advice. A copy of that letter is also included. If you have not seen your doctor yet, please make an appointment and take all of this information with you.*

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Selenium			129 - 163
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Total PFAS			11.1 – 31.2
PFAS were measured in your blood.			
PCBs (Polychlorinated Biphenyls)			
Total PCBs			114 – 439
PCBs were measured in your blood.			
Persistent Pesticides			
Oxychlorthane			11.4 – 39.2
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<i>o,p'</i> -Dichlorodiphenyltrichloroethane (DDT)			Not measured
Hexachlorobenzene			15.1 – 29.0
Mirex			Not detectable – 15.4
Persistent pesticides were measured in your blood.			
PAHs (Polycyclic Aromatic Hydrocarbons)			
Total PAHs			7.78 – 52.1
PAHs were measured in your urine.			



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Selenium	µg/L
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Total PCBs	ng/g lipid
Persistent Pesticides	
Oxychlorane	ng/g lipid
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<i>o,p'</i> -Dichlorodiphenyltrichloro-ethane (DDT)	ng/g lipid
Hexachlorobenzene	ng/g lipid
Mirex	ng/g lipid
PAHs (Polycyclic Aromatic Hydrocarbons)	
Total PAHs	µg/g creatinine