

Attachment 4e

**MICHIGAN DEPARTMENT OF COMMUNITY HEALTH
DIVISION OF ENVIRONMENTAL HEALTH**

**Biomonitoring of Persistent Toxic Substances
in Michigan Urban Fisheaters**

Biomonitoring Questionnaire

Readability has been calculated using the Fry Readability Formula for determining grade level at the 6th grade level when sentences containing agency names are omitted.

OMB: Attachment 4e. Biomonitoring Questionnaire

OMB page 2: Consider only asking for this on the consent form

CONTACT INFORMATION

ATSDR/MDH response: The biomonitoring questionnaire no longer collects address and personal information. This has been moved to the consent process. A Contact Information Form (Attachment 4b) has been created which will be filled in with information collected at the onshore recruiting. Respondents will be asked to verify contact information collected at the onshore recruiting instead of open ended questions to gather this information again.

OMB page 23: Animal

/AMINAL] at

ATSDR/MDH response: the spelling had been corrected.

OMB page 29: What's the intended use of this data?

Now I'd like to measure your blood pressure.

Measurement: ____ / ____

[] Refused

ATSDR/MDCH response:

Blood pressure will be assessed prior to blood sample collection to ensure that participants may safely give the required volume of blood. The Certified Phlebotomy Technician or other qualified person will assess the participants' blood pressure prior to collection of a blood sample. Blood samples will be collected from participants whose blood pressure is below 180/100 (systolic/diastolic) and above 80/50 (systolic/diastolic). Participants will be given an American Heart Association blood pressure information (Attachment 10a7) sheet to take with them. Blood pressure readings will be verbally shared with participants and recorded, but will not be retained for any analytical purpose.

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SURVEY QUESTIONNAIRE

Date of Interview: _____

Interviewer Name: _____

Introductory Script: Hello. My name is _____. Thank you for agreeing to be part of this study. I am going to ask you some questions about you and your normal activities...things like your age, where you live, foods you eat, and a few questions about your lifestyle. Everyone in the study will be asked the same questions.

It will take about one hour to go through all of the questions.

Before we start, I want to remind you about a few things:

First, tell me if I'm going too fast or if you would like to take a break. Also, you don't have to answer any questions that you don't want to. Just tell me that you "don't want to answer" and we'll skip the question.

Second, if you are not sure about an answer, do the best you can. If you can't remember or don't know, just tell me "I don't know".

Third, please do the best you can, because your answers are very important. They will help us learn how people have come into contact with chemicals in the environment.

Finally, you can tell me to stop if you don't want to finish answering these questions.

Do you have any questions for me?

Okay, let's get started.

Public reporting burden of this collection of information is estimated to average 52 minutes per response for total participation, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC/ATSDR Reports Clearance Officer; 1600 Clifton Road, MS D-74, Atlanta, GA 30333, ATTN: PRA (0923-XXXX).

Note to interviewer: The text in *italics* are instructions or supporting information. Do not read aloud.

CONTACT INFORMATION

Script: We need some information about how to reach you so we can send you the results of the tests done on your blood and urine. All the information you give in this first part will be stored separately from the rest of the things you tell me.

1. Indicate whether the person is a male or female. If unsure, ask his/her gender.

M F

2. What is your birthdate?

 / /

DK

Refused

10a. Confirm: So that would make you [XX] years old.

3. Do you consider yourself to be Hispanic or Latino?

Yes

No

DK

Refused

4. What race or races do you consider yourself? CHECK all that apply.

White

Black or African American

Asian

Native Hawaiian or Other Pacific Islander

American Indian or Alaska Native

DK

Refused

RESIDENTIAL HISTORY

Script: Next, I will ask a few questions about where you have lived.

What {are/were} your usual activities or duties?

Script: Now I will ask you about jobs you have held where you have come into contact with chemicals. Be sure to include seasonal work, self-employment, military service, and farm work in your answers.

WORK HISTORY

As part of a job, have you ever... CHECK response	(if YES) What {is/was} your job title/description?	(if YES) Year started job	(if YES) Year ended job
27. Have you ever applied pesticides that kill insects, fungus, or weeds? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	27a Job title/description _____ _____ _____	27b _____ year	27c _____ year
28. Have you ever worked for a trash or recycling company? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	28a Job title/description _____ _____ _____	28b _____ year	28c _____ year
29. Have you ever worked in a foundry, a smelter, a welding facility or steel mill? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	29a Job title/description _____ _____ _____	29b _____ year	29c _____ year
30. Have you ever removed lead paint? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	30a Job title/description _____ _____ _____	30b _____ year	30c _____ year

			Study ID		
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<p>31. Have you ever worked with commercial electrical equipment such as transformers, or capacitors or worked for an electric power company?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused</p>	<p>31a Job title/description</p> <hr/> <hr/> <hr/>	<p>31b _____year</p>	<p>31c _____year</p>
<p>32. Have you ever been a maintenance worker in any type of heavy industry?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused</p>	<p>32a Job title/description</p> <hr/> <hr/> <hr/>	<p>32b _____year</p>	<p>32c _____year</p>
<p>33. Have you ever worked for a battery manufacturing or recycling company?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused</p>	<p>33a Job title/description</p> <hr/> <hr/> <hr/>	<p>33b _____year</p>	<p>33c _____year</p>
<p>34. Have you ever worked for a chemical manufacturing company?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused</p>	<p>34a Job title/description</p> <hr/> <hr/> <hr/>	<p>34b _____year</p>	<p>34c _____year</p>

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BIRTHS

(If MALE, SKIP to Q 49)

(If FEMALE, READ Script) We want to know if you ever had children, because giving birth and nursing can change the amount of some chemicals in the body.

47. How many children have you given birth to? (if none, ENTER "0" and SKIP to Q 49)

_____ child/children

Birth Order (Oldest-to-Youngest)	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th
48. From oldest to youngest, what year was each child born?										
49. How many months {were your children/was your child} breastfed?										

Script: The next questions are about activities or interests done as hobbies. You may do these activities for fun, to earn money, or to keep up your house.

HOBBIES AND ACTIVITIES		
	50. In the past 12 months, have you done any of the following activities at home or somewhere else?	51. In the past 12 months, has someone else living in your household done any of these activities in your home?
Dyeing material (Ex: textiles, making quills)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused
Electronics assembly (Ex: computer circuits, radios, robot kits)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused
Gardening or farming	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused
Glass crafting (Ex: stained glass, glassblowing)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused
Leathercrafting (Ex: leather crafts, taxidermy, tanning hides - chemical or brain)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused
Metal working (Ex: enameling, jewelry making, making fishing sinkers, loading shotgun shells, casting bullets, lost wax casting)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused
Painting and glazing (Ex: household painting, art, ceramics making)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused
Printmaking (Ex: intaglio, etching, lithography)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused
Woodworking (Ex: cabinet making, carpentry, furniture making, wood turning, working with treated lumber)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused

[] Refused

Study ID

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		[] Refused	
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Study ID

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Script: Now I'd like to ask you how the fish, caught by you or someone you know, was prepared and cooked for your meals.

65. What parts of the fish did you usually eat in the past 12 months? (CHECK all that apply)

- Fillet
- Skin
- Cheeks
- Eggs/Roe
- Liver
- Other, specify _____

66. How was the fish that you ate in the past 12 months usually cleaned? (CHECK all that apply)

- Trimmed fat
- Trimmed belly meat
- Removed/punctured skin
- Removed guts/gutted
- Other, specify _____

67. How was the fish that you ate in the past 12 months usually cooked? (CHECK all that apply)

- Pan fry
- Deep fried
- Baked/Broiled
- Boiled/Poached
- Smoked
- Stewed/Chowder
- Dried
- Grilled
- Eaten raw
- Pickled
- Other, specify _____

68. For fish caught in any of these areas (SHOW MAPS), how has the total amount of fish you eat changed during the past five years?

Saginaw AOC

- Eat less
- Eat about the same
- Eat more
- N/A

Detroit AOC

- Eat less
- Eat about the same
- Eat more
- N/A

Other locations

- Eat less
- Eat about the same
- Eat more
- N/A

STORE / MARKET / RESTAURANT FISH

Script: The following questions are about fish you have eaten that were bought at a store, supermarket, or restaurant. (SHOW State Bought List)

FISH BOUGHT FROM A STORE, SUPERMARKET, OR RESTAURANT			
SPECIES	69. Which fish have you eaten at least five times in your life from a store, supermarket, or restaurant? SHOW CARD	70. (If [SPECIES] is YES) How many years did you eat [SPECIES] from a store, supermarket or restaurant? (If NEVER, enter 00 years)	71. In the past 12 months, have you eaten [SPECIES] bought from a store, supermarket, or restaurant? Tell me the number of times per week, month, or year, whichever is easiest to remember. [If NEVER, enter 00 times per year]
Catfish	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	_____ years	_____ times per <input type="checkbox"/> wk <input type="checkbox"/> mo <input type="checkbox"/> year <input type="checkbox"/> DK <input type="checkbox"/> Refused
Salmon	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	_____ years	_____ times per <input type="checkbox"/> wk <input type="checkbox"/> mo <input type="checkbox"/> year <input type="checkbox"/> DK <input type="checkbox"/> Refused

Trout	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	_____ years	_____ times per <input type="checkbox"/> wk <input type="checkbox"/> mo <input type="checkbox"/> year <input type="checkbox"/> DK <input type="checkbox"/> Refused
Tuna (canned)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	_____ years	_____ times per <input type="checkbox"/> wk <input type="checkbox"/> mo <input type="checkbox"/> year <input type="checkbox"/> DK <input type="checkbox"/> Refused
Tuna (steak/filet, not canned)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	_____ years	_____ times per <input type="checkbox"/> wk <input type="checkbox"/> mo <input type="checkbox"/> year <input type="checkbox"/> DK <input type="checkbox"/> Refused
Whitefish	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	_____ years	_____ times per <input type="checkbox"/> wk <input type="checkbox"/> mo <input type="checkbox"/> year <input type="checkbox"/> DK <input type="checkbox"/> Refused

77. In the past 12 months, what parts of the [Wild Bird or Animal] did you usually eat? (CHECK all that apply. If NONE, enter 00)

- Meat
- Skin
- Liver
- Other, specify _____
- DK
- Refused

HOME-RAISED OR HOME-GROWN FOODS

Script: The next set of questions is about home-raised birds or animals and home-grown vegetables and fruit. For this interview, “home-raised” and “home-grown” means not purchased in a grocery store or market and not wild.

Milk and other dairy products	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	<input type="checkbox"/> Yes, Saginaw AOC <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	_____ years	_____times per <input type="checkbox"/> wk for <input type="checkbox"/> mo for <input type="checkbox"/> year <input type="checkbox"/> DK <input type="checkbox"/> Refused
		<input type="checkbox"/> Yes, Other Location Name of counties: _____ _____ <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	_____ years	_____times per <input type="checkbox"/> wk for <input type="checkbox"/> mo for <input type="checkbox"/> year <input type="checkbox"/> DK <input type="checkbox"/> Refused
Poultry or poultry products (chicken, duck, goose, turkey)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	<input type="checkbox"/> Yes, Saginaw AOC <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	_____ years	_____times per <input type="checkbox"/> wk for <input type="checkbox"/> mo for <input type="checkbox"/> year <input type="checkbox"/> DK <input type="checkbox"/> Refused
		<input type="checkbox"/> Yes, Other Location Name of counties: _____ _____ <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	_____ years	_____times per <input type="checkbox"/> wk for <input type="checkbox"/> mo for <input type="checkbox"/> year <input type="checkbox"/> DK <input type="checkbox"/> Refused
Meat and	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes, Saginaw AOC <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused	_____ years	_____times per <input type="checkbox"/> wk for <input type="checkbox"/> mo for <input type="checkbox"/> year <input type="checkbox"/> DK

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82. What parts of the home-raised poultry did you usually eat?

- Meat
- Skin
- Liver
- Other _____

83. What parts of the home-raised animals did you usually eat?

- Meat
- Skin
- Liver
- Kidney
- Other _____

DEMOGRAPHICS

Script: To help us compare results between groups of people, it is useful to know the annual income of the study participants. This information can also be useful when planning public health policies and programs. This is the final set of questions.

Script: We consider your family to include everyone currently living with you, who is related by birth, marriage, or adoption and unmarried partners.

84. Including yourself, how many family members currently live with you?

_____ number of family members

85. Can you tell me your total family income in {LAST CALENDAR YEAR} before taxes? *SHOW CARD*

- Less than \$25,000
- \$25,000 to less than \$35,000
- \$35,000 to less than \$50,000
- \$50,000 to less than \$75,000
- \$75,000 to less than \$100,000
- \$100,000 or more
- DK
- Refused

Closing Script:

Thank you for answering these questions. I know it took awhile but the information you gave me is very important to this study.

We will send you a letter with your test results at the mailing address you gave me. Most everyone will receive their letters after we get the test results from all of the people in the study. However, we will let you know as soon as possible if any of your test results are high enough that we think you should be notified right away. In that case, there may be things you want to do to protect your health.

Do you have any questions about the study or how you will get your results? If have questions after you leave, you can contact us at the number in your copy of the Consent Form.

Will you need transportation when you are done? If so, stop by the reception desk and they will help you.

If you don't have any questions, I will show you where to find the (nurse/phlebotomist). (She/he) will get your height, weight, and blood pressure. (She/he) will also ask you whether or not you have gained or lost weight in the last year. Then (she/he) will get your blood and urine samples.

Thank you for coming in today. You can pick up your gift card at the reception desk on your way out.

CLINICAL MEASUREMENTS

Now we'll measure your height.

Measurement: _____ft _____ in

Refused

Next I'd like to measure your weight.

Measurement: _____lbs

Refused

Hand Cards and Response Categories

EDUCATION LEVEL OR DEGREE

8th Grade or less
9th to 12th Grade, No Diploma
High School Graduate or GED
Some College, No Diploma
Associate Degree
Bachelor Degree
Postgraduate, Professional, or Doctoral Degree

TYPES OF INCOME

Earnings	Survivor benefits	Educational assistance
Unemployment compensation	Disability benefits	Alimony
Workers' compensation	Pension or retirement income	Child support
Social security	Interest	Financial assistance from outside of the household
Supplemental security income	Dividends	Other income
Public assistance	Rents, royalties, and estates and trusts	
Veterans' payments		

TOTAL FAMILY INCOME

Less than \$25,000
\$25,000 to less than \$35,000
\$35,000 to less than \$50,000
\$50,000 to less than \$75,000
\$75,000 to less than \$100,000
\$100,000 or more

Caught Fish

Bluegill (Sunfish)
Brook trout
Brown trout
Bullhead
Carp
Catfish
Chinook salmon (King salmon)
Coho salmon
Black/White crappie (Calico, Strawberry bass)
Eelpout (Burbot, Ling, Lawyer, Freshwater cod)
Freshwater drum (Sheepshead)
Lake herring (Cisco, Tullibee)
Lake trout
Largemouth bass (Black bass)
Muskellunge (Muskie)
Northern pike
Rainbow smelt
Rainbow trout (Steelhead)
Rock bass
Smallmouth bass (Black bass)
Sturgeon
Suckers
Walleye
Whitefish
White bass (Silver bass)
White perch
Yellow perch

Bought Fish

Catfish
Salmon
Trout
Tuna (canned)
Tuna (steak/fillet, not canned)
Whitefish
Group A - Cod, Haddock, Herring, Freshwater perch, Ocean perch, Pollock, Scallops, Shrimp, Tilapia
Group B - Ocean bass, Grouper, Halibut, Mackerel, Mahi Mahi, Orange Roughy, Snapper
Group C - King Mackerel, Shark, Swordfish, Tilefish

Wild Game

Deer

Duck, Goose, Coot

Grouse, pheasant, turkey or other upland bird

Raccoon, Rabbit, Squirrel, Porcupine, Other Small Animal

Turtle