

Attachment 4d

**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.

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Job 3 _____ Industry 3 _____

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

Job 4 _____ Industry 4 _____

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.**

Study ID

| | | | | | |
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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

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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 |

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|-------------------------|--|-------------|--|
| Other: SPECIFY _____ | <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 |
| Other: SPECIFY _____ | <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 |
| Other: SPECIFY _____ | <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 |

WILD BIRDS AND ANIMALS

Script: The next questions are about hunted wild birds or animals that you have eaten at least five times in your lifetime.

72. Have you eaten [SPECIES] at least five times in your life? (If YES, COMPLETE Wild Bird/Animal Eaten Table. Use separate table for each [SPECIES] consumed)

| | | | |
|--|----------------------------|----------------------------|-----------------------------|
| Deer (Venison) | <input type="checkbox"/> Y | <input type="checkbox"/> N | <input type="checkbox"/> DK |
| Duck, Goose, Coot | <input type="checkbox"/> Y | <input type="checkbox"/> N | <input type="checkbox"/> DK |
| Grouse, pheasant, turkey, or other upland bird | <input type="checkbox"/> Y | <input type="checkbox"/> N | <input type="checkbox"/> DK |
| Raccoon, rabbit, squirrel, porcupine, other small animal | <input type="checkbox"/> Y | <input type="checkbox"/> N | <input type="checkbox"/> DK |
| Turtle | <input type="checkbox"/> Y | <input type="checkbox"/> N | <input type="checkbox"/> DK |

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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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| meat products (other than poultry) | <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused | <input type="checkbox"/> Yes, Other Location Name of counties: _____ _____ | _____ years | <input type="checkbox"/> Refused ____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"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused | | |
| Home-grown vegetables and fruit | <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: _____ _____ | _____ 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 |

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

Now I'd like to measure your blood pressure.

Measurement: ____ / ____

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