

Attachment G

Survey

Survey
Exposure to Arsenic and Uranium in Private Well Water in Connecticut, New Mexico, and New Hampshire

Form Approved
OMB No. 0920-1173
Exp. Date 03/31/2020

Date: _____
MM/DD/YYYY

Staff administering questionnaire: _____

Participant name: _____

Participant ID #: _____

This project is conducted by the Centers for Disease Control and Prevention and the United States Geological Survey with help from the health department. You do not have to answer any question you do not want to and you can end the interview at any time. Any information you give me will be confidential. If you have any questions about the survey, please call the project coordinator, <name of contact person> at (XXX) XXX-XXXX.

Do you have any questions for me before we begin?

We'll start with some demographic questions.

1. What is your sex? (M, F, Other: (please describe _____))
2. What is your DOB: _____ (MM/DD/YYYY)

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3. Which one of these groups would you say best represents your race? (can select more than one)

- White
- Black or African American
- Asian
- Native Hawaiian or Other Pacific Islander
- American Indian or Alaska Native

Other: (Don't read this; only check if the respondent states something that is not on the list. Record the response here) _____

4.

- Don't know (Don't read this)
- Refused (Don't read this)

5. For confirmational purposes, what is your address?

Street _____
City, State, Zip _____

6. How long have you lived at this address? _____ Years

IF <1yr
What was your previous address?
Street _____
City, State, Zip _____

For about how long did you live there? _____ Years

7. Have you ever served in the U.S. Armed Forces, military reserves, or National Guard? (Yes, No, Don't know, Refused)

IF YES:
Where did you serve?

Were you injured while serving? (Yes, No, Don't know, Refused)

IF YES:

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Did your injury involve bullets, metal, or shrapnel piercing your skin? (Yes, No, Don't know, Refused)

IF YES:

Were all of the fragments removed? (Yes, No, Don't know, Refused)

8. About how much do you weigh without shoes? (enter whole number, Don't know, Refused) _____ lbs
9. And about how tall are you without shoes? (enter feet & inches, Don't know, Refused) ___ft ___in

The following questions are about the home you live in.

10. Do you own or rent your home?
- Own
 - Rent
 - Other arrangement
 - Don't know
 - Refused

Home is defined as the place where you live most of the time/the majority of the year.

Rents or Owns Home: A person rents the home if s/he pays on a continuing basis without gaining any rights to ownership. A person owns the home even if s/he is still paying on a mortgage. Another arrangement might be one where someone is staying with friends or family without paying rent or at a group home.

PROBE: We ask this question in order to compare biomonitoring results among people with different housing situations.

11. Do you use a private well as your primary source of:
- Drinking water? (Yes, No, Don't know, Refused)
 - Cooking water? (Yes, No, Don't know, Refused)
 - Showering/bathing water? (Yes, No, Don't know, Refused)

A private well is a private or small community system for access to ground water. This means you are not "on" public or city water. You may have a private well that gives water to just your home or you may share a private well with a couple of other homes.

IF NO (ask all that apply):

What do you use as your primary source of:

Drinking water? (free text) _____

Cooking water? (free text) _____

Showering/bathing water? (free text) _____

12. What kind of private well is it?
- Dug

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- Driven
- Drilled/artesian
- Don't know
- Refused
- Not applicable—on public water supply

A dug well is about 10-30 feet deep and it is typically dug by shovel or backhoe and lined with hard materials to prevent collapse. A driven well is about 30-50 feet deep and a special hammer or hydraulic equipment is used to push into the ground and withdraw water. A drilled well is the deepest of the three types (about 100-400 feet deep) and uses a metal or plastic pipe. A drilled well is sometimes called an artesian well.

13. Have you ever tested your water before? (Yes, No, Don't know, Refused)

IF NO
Skip to Q22

IF YES
Please tell me what you remember about your water test results. (free text)

14. Have you tested your water within the past three years? (Yes, No, Don't know, Refused)

15. Do you have a water treatment system installed? (Yes, No, Don't know, Refused)

- IF YES
- What type of system? Is it:
- Whole house/point-of-entry or
 - Point-of-use
 - Don't know
 - Refuse

A whole house/point-of-entry system treats the water as it enters the home. A point-of-use system treats the water at the point of consumption, such as at the kitchen sink, shower head, or refrigerator.

What is the purpose of the system you installed? (check all that apply)

- Make the water taste better
- Remove germs
- Remove contaminants
- Other _____

(Skip if Q15 = NO, DK, or REFUSED)

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Have you tested your water since the treatment system was installed? (Yes, No, Don't know, Refused)

16. In the **past 7 days**, were any chemical products used in your home to control fleas, rodents, ants, termites, or other insects? (Yes, No, Don't know, Refused)

IF YES

Please list them. _____

17. In the **past 7 days**, were any chemical products used in your lawn or garden to kill weeds or plants? (Yes, No, Don't know, Refused)

IF YES

Please list them. _____

The following questions are about your occupation.

18. Do you **usually** work 35 hours or more per week in total at all jobs or businesses? (Yes, No, Don't know, Refused)

IF YES

Do you come into contact with arsenic at your current job? (Yes, No, Don't know, Refused)

Do you come into contact with uranium at your current job? (Yes, No, Don't know, Refused)

19. If you currently work, do you work from home? (Yes, No, Don't know, Refused, N/A)

IF YES

How many hours per week? ____ hours

20. I am now going to read a list of occupations. Please let me know if you EVER worked in the following jobs:

In a mine (Yes, No, Don't know, Refused)

In a quarry (Yes, No, Don't know, Refused)

In the smelting industry (*extracting metal from its ore by heating and melting*) (Yes, No, Don't know, Refused)

In construction or remodeling (Yes, No, Don't know, Refused)

In electronic manufacturing (Yes, No, Don't know, Refused)

Recycling electronics or batteries (Yes, No, Don't know, Refused)

Manufacturing pressure-treated wood (Yes, No, Don't know, Refused)

Manufacturing glass (Yes, No, Don't know, Refused)

Incinerating waste (Yes, No, Don't know, Refused)

Burning coal (Yes, No, Don't know, Refused)

Producing concrete (Yes, No, Don't know, Refused)

In an industrial plant (*a site where products are manufactured or processed*)
(Yes, No, Don't know, Refused)

In a chemistry lab (Yes, No, Don't know, Refused)

In landscaping, especially as a pesticide or herbicide applicator (Yes, No, Don't know, Refused)

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- In an orchard (Yes, No, Don't know, Refused)
- In a job that manufactured or used poultry feed (Yes, No, Don't know, refused)
- Near active volcanoes (Yes, No, Don't know, Refused)
- As a professional or volunteer firefighter (Yes, No, Don't know, Refused)
- As an artist (Yes, No, Don't know, Refused)
- In chemical manufacturing (Yes, No, Don't know, Refused)
- In a nuclear power plant (Yes, No, Don't know, Refused)
- Maintaining or decommissioning uranium-containing sites or weapons (Yes, No, Don't know, Refused)
- With metal weights that contain uranium (*such as on gyroscopes or aircraft*) (Yes, No, Don't know, Refused)
- With art pigments or glazes that contain arsenic or uranium (Yes, No, Don't know, Refused)

Prompt: If answer YES to any of the above jobs, ask the following questions for each job:

JOB 1

About how long did you work at <*the job*> or business? _____years

What kind of work were you doing? (For example: farming, mail clerk, computer specialist).

JOB 2

About how long did you work at <*the job*> or business? _____years

What kind of work were you doing? (For example: farming, mail clerk, computer specialist).

JOB 3

About how long did you work at <*the job*> or business? _____years

What kind of work were you doing? (For example: farming, mail clerk, computer specialist).

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The following questions are about your recreational and non-work activities.

21. Do you create artwork or do arts and crafts such as painting, pottery, ceramics, or glassware in your free time? (Yes, No, Don't know, Refused)

IF YES

Do you ever use paints, tints, glazes, or pigments that contain uranium? An example of this is pitchblende. (Yes, No, Don't know, Refused)

Do you ever use paints, tints, glazes, or pigments that contain arsenic? Examples of these include orpiment, Sheele's green, and conicalcrite. (Yes, No, Don't know, Refused)

22. Do you have regular contact (defined as 2-3x/wk) with pressure-treated wood, including pallets and railroad ties? (Yes, No, Don't know, Refused)

Pressure treated wood is wood that has been preserved with chemicals. Before 2004, one type of widely-used chemical was arsenic, which caused the wood to have a greenish color. Sometimes you can see slits in the wood where the chemical was injected. Wooden pallets and railroad ties were once treated with arsenic as well.

IF YES

Do you ever work with pressure-treated wood structures that were created before 2004? This means the structure you are working on contains wood that was manufactured in 2003 or is older. (Yes, No, Don't know, Refused)

23. Do you have regular contact with any of the following wooden structures: fences, picnic tables, decks, porches, or playground structures? (Yes, No, Don't know, Refused)
24. Do you ever work on projects using wooden pallets or railroad ties? (Yes, No, Don't know, Refused)
25. Do you regularly participate in outdoor activities where you are in contact with dirt and soil? (Yes, No, Don't know, Refused)
26. Have you travelled outside the United States during the past 30 days? (Yes, No, Don't know, Refused)

IF YES

What country/countries did you visit? _____

The following questions are about any dietary supplements, such as vitamins or herbs, you may take. I just want to remind you that you can refuse to answer any question you don't feel comfortable answering.

27. Have you used or taken any **vitamins, minerals, herbals, or other dietary supplements** in the past 30 days? (Yes, No, Don't know, Refused)

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Dietary supplements (vitamins/minerals): Dietary supplements are often labeled as “dietary supplements” and are used in addition to foods and beverages. Dietary supplements are not intended to replace food.

Read only if necessary: Include vitamins, minerals, antacid/calcium supplement products, fiber supplements, amino acids, performance enhancers, herbs, herbal medicine products, and plant extracts used as dietary supplements. Include products that are taken orally or given by injection. Do not include beverages such as tea and skin creams. Meal replacement beverages, weight loss and performance booster drinks, and food bars are considered foods, not dietary supplements.

IF YES

What have you taken in the past 30 days?

- Vitamin A
- Vitamin B6
- Vitamin B12
- Vitamin C (with or without rose hips)
- Vitamin D (D3)
- Vitamin E
- Calcium
- Chromium (chromium picolinate)
- Creatine
- Fish Oil
- Folate (folic acid)
- Iron (ferrous oxalate)
- Magnesium
- Multi-vitamin
- Potassium
- Selenium
- Zinc (zinc gluconate)
- Other _____
- Don't know
- Refused

28. In the last 30 days, have you used any ayurvedic medicines? Ayurvedic medicine is an Indian practice that uses herbs, massage techniques, and special diets to promote health and well-being. (Yes, No, Don't know, Refused)

IF YES

What types of ayurvedic medicines have you used in the past 30 days?

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29. In the last 30 days, have you taken any prescription medicines (including creams, drops, patches, and shots)? (Yes, No, Don't know, Refused)

IF YES

I am now going to read a list of medications. These medications may affect the amount of creatinine in your urine, which is something we measure to see how diluted your urine is (in other words, how well hydrated you are). Please let me know if you've taken any of them in the last 30 days. (For each: Yes, No, Don't know, Refused)

- Phenytoin (*Dilantin*) (Yes, No, Don't know, Refused)
- Cephalosporin antibiotics (Yes, No, Don't know, Refused)
- Captopril (Yes, No, Don't know, Refused)
- Aminoglycosides (Yes, No, Don't know, Refused)
- Trimethoprim (*Proloprim, Trimplex*) (Yes, No, Don't know, Refused)
- Bactrim (Yes, No, Don't know, Refused)
- Cimetidine (*Tagamet*) (Yes, No, Don't know, Refused)
- Quinine (Yes, No, Don't know, Refused)
- Quinidine (Yes, No, Don't know, Refused)
- Procainamide (Yes, No, Don't know, Refused)
- Amphotericin B (*antifungal*)

30. In the last 30 days, have you had any medicines or medical treatments that are known to contain arsenic? *For example, intravenous arsenic trioxide to treat leukemia (acute promyelocytic leukemia) (brand name Trisenox).* (Yes, No, Don't know, Refused)

IF YES

For how long have you been taking the arsenic-containing medication? _____ months

31. In the last 30 days, have you used any knock-off or imported cosmetics, including skin creams? They may have been sold over the internet. (Yes, No, Don't know, Refused)

IF YES

What is the name of the product(s)?

The following questions are about tobacco and alcohol use.

32. How many people (not including yourself) who live at home with you **smoke** cigarettes, e-cigarettes, cigars, pipes, hookah, or any other tobacco product? _____ people

IF 1+

During the past 7 days, on how many days did anyone (not including yourself) who lives here smoke tobacco **inside** this home? Do not include smoking on decks, porches, or detached garages. _____ days

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33. Have you ever **smoked** cigarettes, e-cigarettes, cigars, pipes, hookah, or any other tobacco product? (Yes, No, Don't know, Refused)

IF YES

What product(s) did you use? _____

Do you currently still smoke tobacco products? (Yes, No, Don't know, Refused)

IF YES

During the past **30 days**, on how many days did you smoke tobacco products? ___days

IF NO

How long has it been since you quit smoking tobacco products? _____ days, months, years (circle one)

34. Have you ever used other tobacco products, such as chewing tobacco or snuff? (Yes, No, Don't know, Refused)

IF YES

What product(s) did you use? _____

Do you currently still use these tobacco products? (Yes, No, Don't know, Refused)

IF YES

During the past **30 days**, on how many days did you use these tobacco products? ___days

IF NO

How long has it been since you quit using these tobacco products? _____ days, months, years (circle one)

35. This next question is about your contact with smoke in other places. During the last 7 days, did you spend time at work, in a friend/family member's home, or in a restaurant, bar, or car while someone else was using cigarettes or tobacco products? (Yes, No, Don't know, Refused)

36. Now I am going to ask about your alcohol usage. Do you drink alcoholic beverages? (Yes, No, Don't know, Refused)

IF NO

Skip to Q38

IF YES

What types of alcoholic beverages do you drink? Did you drink: (answer Yes, No, Don't know, Refused for each)

Beer (Yes, No, Don't know, Refused)

Wine (Yes, No, Don't know, Refused)

Liquor (Yes, No, Don't know, Refused)

Malt beverage other than beer (such as Smirnoff Ice, Twisted Tea Hard Iced Tea)

37. During an average week, how many days per week do you have at least one drink of any alcoholic beverage?

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1+ DAYS

On the days when you drink, about how many drinks do you drink on the average? *One drink is equivalent to a 12-ounce beer, a 5-ounce glass of wine, or a drink with one shot of liquor.* ____drinks

The following questions are about the foods you eat and non-alcoholic beverages you drink.

38. I'm going to list some foods. Please say whether you eat these products Often (as in 4 or more times per week), Occasionally (as in 3 or less times per week), or Never. (For each: Often, Occasionally, Never, Don't know, Refused)

[Reference sheets for Often, Occasionally, and Never will be given to the participant] White

rice: Often, Occasionally, Never, Don't know, Refused

Brown rice: Often, Occasionally, Never, Don't know, Refused

Rice crackers: Often, Occasionally, Never, Don't know, Refused

Rice cakes: Often, Occasionally, Never, Don't know, Refused

Rice bread: Often, Occasionally, Never, Don't know, Refused

Rice noodles: Often, Occasionally, Never, Don't know, Refused

Rice vinegar: Often, Occasionally, Never, Don't know, Refused

Black vinegar: Often, Occasionally, Never, Don't know, Refused

Products that contain rice or rice derivatives (such as brown rice syrup in some granola bars, energy bars, and energy gels): Often, Occasionally, Never, Don't know, Refused

Fish sauces and pastes (commonly used on sandwiches):

Often, Occasionally, Never, Don't know, Refused Rice-based

Rice-based cereals such as Rice Krispies® or Rice Chex®:

Often, Occasionally, Never, Don't know, Refused

Mushrooms: Often, Occasionally, Never, Don't know, Refused

Sweet potatoes: Often, Occasionally, Never, Don't know, Refused

Potatoes other than sweet potatoes: Often, Occasionally, Never, Don't know, Refused

Parsnips: Often, Occasionally, Never, Don't know, Refused

Turnips: Often, Occasionally, Never, Don't know, Refused

Canned tuna fish: Often, Occasionally, Never, Don't know, Refused

51. On average, how often **per week** do you eat any type of fish, smelts, shellfish, seafood, or seaweed? Include any foods that have fish, shellfish, or seaweed in them such as sandwiches, soups, salads, sushi, and canned/packageged tuna? ____times per week

52. During the past 30 days, did you eat any marine or freshwater fish? (Yes, No, Don't know, Refused) *[Provide reference list of marine and freshwater fish if necessary]*

IF YES

Was that fish caught locally in NH or just off the coast of NH? (Yes, No, Don't know, Refused)

IF YES

Where was it caught? If possible, please name the location. _____

53. Now I'm going to list some non-alcoholic beverages. Please say whether you drink these beverages Often (as in 4 or more times per week), Occasionally (as in 3 or less times per week), or Never. (For each: Often, Occasionally, Never, Don't know, Refused) *[Reference sheets for Often, Occasionally, and Never will be given to the participant]*

Apple juice: Often, Occasionally, Never, Don't know, Refused

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Grape juice: Often, Occasionally, Never, Don't know, Refused

Tea (skip pattern): Often, Occasionally, Never, Don't know, Refused

Mineral water (This is different from seltzer water. Brands include Perrier and San Pellegrino):

Often, Occasionally, Never, Don't know, Refused

Rice milk: Often, Occasionally, Never, Don't know, Refused

Other rice-based beverages (such as horchata): Often, Occasionally, Never, Don't know, Refused

Rice water: Often, Occasionally, Never, Don't know, Refused

Skip pattern: You said you drink tea. Do you drink oolong tea? (Yes, No, Don't know, Refused)

IF YES

On average, how many cups per day? _____ cups per day (8oz=1c)

54. This next question is about water. How many cups of water do you drink on average per day? ([Include water from all sources, like the water you use in coffee and tea]? _____ cups per day?

55. How many cups of tap water do you drink per day? This is water you get from a kitchen sink or water that has been sent from water pipes to a refrigerator dispenser. This is not bottled water. _____ cups per day

56. And of the tap water you drink, how much of it is from your work? _____ cups

IF 1+

What town do you work in? (free text, Don't know, Refused) _____

Is that public water? (Yes, No, Don't know, Refused)

That was my last question. Everyone's answers will be combined to help us provide information about exposure to arsenic and uranium in this area. Thank you very much for your time and cooperation.