Community Outreach and Translation Core

Deborah Johnson, MHA,
Carolyn Murray, MD, MPH (Core Director),
Margaret Karagas, PhD (Center Director, Project Leader),
Ardis Olson, MD (Pediatrician Consultant),
Xun Shi PhD, Jonathan Chipman PhD
Vicki Sayarath, RD, MPH, Xiaofei He, PhD

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Integrating Well Water Testing into Routine Pediatric Care

• Completed study of providing water testing kits to primary care practices
  – Demonstrated that primary care practices can be effective at promoting testing for arsenic in wells
  – Practices with reminder systems, and with active involvement of the health care provider performed best
  – Identified barriers to completion: “hassle”, overnight shipping challenges
NH Public Health Lab Partnership

- Created “customized kits” for our original study sites
- Adapted NHPHL materials for clinical practice setting
- We are monitors supplies, and restocking
- Color-coded NH PHL order sheet for tracking
- Quarterly update 11/1/17
My Well Water: What Should I Test For?

Option 1:

**IF:**
- Your well is new.
- Your well water has never been tested.
- You are noticing a salty or metallic taste in your drinking water.
- You observe staining of sinks, tubs or laundry.

**THEN:**
- **STANDARD ANALYSIS** (Total Coliform Bacteria, E. Coli Bacteria, Nitrates, Nitrites, Chlorides, pH, Hardness, Fluoride, Iron, Manganese, Sodium, Arsenic, Lead (both stagnant and flushed), Copper (both stagnant and flushed), Uranium).

**PROS**
- Meets the NH Department of Environmental Services (NH-DES) and American Academy of Pediatrics (AAP) recommendations for comprehensive well water testing.
- Addresses the most common health-related contaminants including arsenic which is known to be a regional concern.
- Addresses whether lead contamination is present.
- Provides information to your health care provider about fluoride supplementation for children.
- Provides key information for addressing water treatment needs if abnormalities are detected.

**CONS**
- More steps in water sampling procedure (4 bottles).
- Requires overnight shipping - or direct lab drop off.**

**Cost:** $85.00

Option 2:

**IF:**
- You have completed a "Standard Analysis" of your well water in the past 3-5 years and you are looking to ensure the current overall quality and safety of your drinking water.

**THEN:**
- **BASIC ANALYSIS PLUS ARSENIC AND FLUORIDE** (Total Coliform Bacteria, E. Coli Bacteria, Nitrates, Nitrites, Chlorides, plus Arsenic and Fluoride*).

**PROS**
- Addresses most common health-related contaminants.
- Addresses regional concerns about elevated arsenic.
- Provides information to your health care provider about fluoride supplementation for children*.
- Meets NH-DES* recommendations for annual testing.

**CONS**
- Requires several steps in sampling procedure (2 bottles).
- Requires overnight shipping - or direct lab drop off.**

**Cost:** $57.00
($45.00 without fluoride)

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* NH-DES, Drinking Water and Groundwater Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095. Ph 603-271-2513 • E-mail dwybinfo@des.nh.gov • https://www.des.nh.gov/organization/divisions/water/dwgb/index.htm

**Water testing kits may be sent using overnight shipping or dropped off at the NH Public Health Laboratory at 29 Hazen Drive, Concord, NH**
My Well Water: What Should I Test For?

Option 3:

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| ◇ Your well has had comprehensive testing in the past 3-5 years.  
◇ No changes in your well water system.  
◇ No changes in taste of drinking water. | ARESENCIC AND FLUORIDE | ◇ Straight forward sampling procedure (1 bottle).  
◇ Can be mailed through US Postal Service.  
◇ Meets the American Academy of Pediatrics (AAP) fluoride recommendation for well water testing.  
◇ Addresses known regional concerns about elevated arsenic.  
◇ Provides information to your health care provider about children’s fluoride supplementation*. | ◇ Does not constitute a thorough assessment of your well water, such as a “Standard Analysis”.  
◇ If arsenic is elevated, you would need additional testing (such as the “Standard Analysis”) and incur additional testing expense, to determine the best approach to treating your water. |

**Cost: $27.00**  
(Arsenic Only = $15.00)

*For households with adults only, fluorine testing would not be indicated although may be useful information in the future.

Disclaimer: These three options do not cover all potential water quality assessments. If you have specific concerns about well contamination and need assistance in, you should seek assistance from the NH Public Health Laboratory, telephone (603) 271-4661, Toll-Free (800) 852-3345 x4661, in selecting the most appropriate and cost-effective test(s) for your well water.

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Please read carefully before collecting your water sample.

- If you recently disinfected your well, be sure all chlorine is gone; the lab will not accept samples with chlorine.
- Select an indoor faucet in a clean area (do not use an outdoor faucet).
- The water sample should be taken from the cold-water faucet.
- Avoid leaky faucets that allow water to seep around the valve.
- It is important that you do not contaminate the sample containers or their caps; keep them closed until ready to use and do not touch the inside of the cap.

Instructions for taking the water sample for:

ARSENIC with or without FLUORIDE Collection
1 bottle

Prior to collecting sample:
1. Select a testing date where you can promptly ship the sample to the NH Public Health Laboratory.*

Sample collection:
1. Remove any aerator from faucet.
2. Run water for 5 minutes to clear the pipes.
3. Reduce the water flow to a gentle stream.
4. Completely fill the plastic containers labeled “Arsenic and Fluoride”.
5. Write the date and time the sample was collected on the bottle label.
6. Complete the Water Test Submittal form.
7. The water test submittal form must be filled out and returned with each sample submitted.
   Be sure the DATE and TIME the sample was collected are written on the form.
8. Mail the water sample with the completed water test submittal form.

A full report of the sample results will be sent to you upon completion of the analysis (allow 3-4 weeks).

* The laboratory MUST analyze samples for bacteria within 30 hours of the time you take the sample; bacteria samples exceeding the 30-hour limit will NOT be accepted.
- **Samples that include bacteria testing are accepted at the NH Public Health Laboratory, 29 Hazen Drive, Concord, NH, 03301.
  Phone: 603-271-4661.
  **Samples accepted Monday through Friday between 8 AM and 4 PM and before 12 noon on Fridays.
  **Samples can be hand delivered to the laboratory in Concord.
  **Samples received in improper containers, with insufficient volume will not be accepted.

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Continued Outreach and Translation

– NNEPQUIN- Regional Obstetric/perinatal health group – moving forward with small pilot of well water testing promotion in prenatal care
Partnership with NH DHHS, Perinatal Epidemiologist

- NH Dept of HHS
  - PRAMS- questions about well water screening and arsenic testing
  - Just received data through 2015, analysis underway
  - Plan summary and educational campaign to Ob community
Educational Outreach and Translation Initiatives

NH Public Health Training Center

- Webinar: Introduction to Environmental Health for NH Health Officers

- Emphasis on pediatric environmental health and well water testing promotion and arsenic
Introduction to Environmental Health for New Hampshire Health Officers

Carolyn Murray, MD, MPH
Director, Community Outreach and Translation
Dartmouth Children’s Environmental Health Center
Update on Xiaofei He’s project:

• Does well water arsenic level (<5, 5-10, >10) appear to impact maternal use of home tap water for drinking/cooking and mixing formula?