Biomonitoring Program

NH Public Health Laboratories, Division of Public Health Services, Department of Health and Human Services

Program Background & Goals

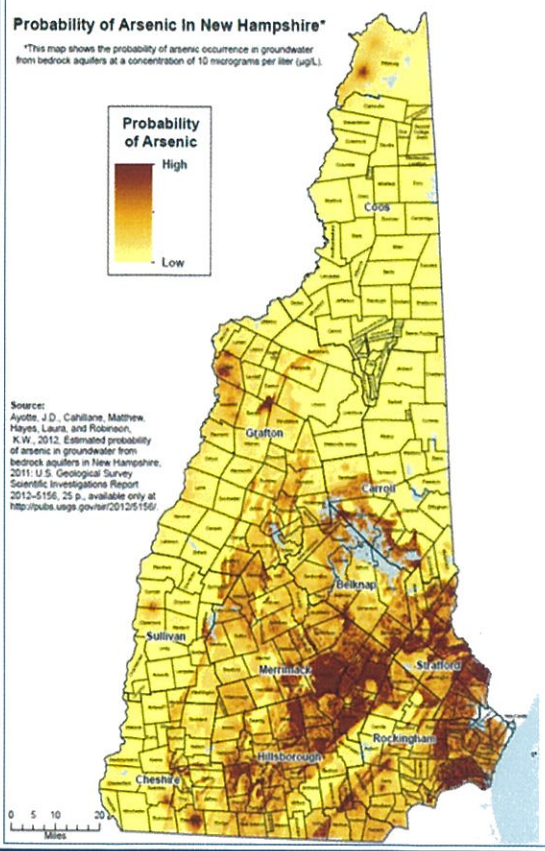
- 100% federally funded by a five year cooperative agreement with the CDC to study environmental chemicals in people.
- Increase the **capability** of the NH PHL to conduct biomonitoring by acquiring the necessary instruments and implementing test methods.
- Increase the **capacity** of the NH PHL to conduct biomonitoring by building the expertise and staff (both toxicologists and epidemiologists).
- Use biomonitoring data to help **prioritize** state health initiatives **and educate** the public on ways to reduce their exposure to environmental chemicals.

Considerations for conducting a biomonitoring study:

- What does the current scientific literature say about the chemical?
- Is there evidence that the chemical causes or is associated with a health effect?
- Are there ways to reduce exposure?
- Is testing available? Will it provide useful information?
- What information exists on other exposed populations?
- Is there a known or potential exposure in New Hampshire?
- What are the interests of the stakeholders and are there opportunities for collaboration?

The Targeted Arsenic and Uranium Public Health Study

Examining the association between arsenic and uranium in private well water and body burden



Why arsenic and uranium?

- Known exposure in NH due to bedrock geology and agricultural history.
- Sound scientific literature available to inform study design methods.
- Causes increased risk of many health conditions (skin, lung, and bladder cancer; cardiovascular disease; neurodevelopmental effects in children; and poor kidney function to name a few).
- Information exists on other exposed populations.
- High quality laboratory instruments and test methods exist.
- A previous NH PHL study found detectable levels of uranium in private well water when arsenic was above the EPA's maximum contaminant level.

How will the results of the study be used?

- To help prioritize State health initiatives such as the State Health Improvement Plan (SHIP).
- To identify at-risk populations and target educational campaigns.
- To help inform the direction of future biomonitoring studies.
- Results will be made available to stakeholders such as other State agencies, the U.S. Geological Survey, and local public health entities to advance other health projects. Results will also be shared to the public in aggregate form.