

Public Health Laboratory: 2022 Highlights

The Vermont Department of Health Laboratory ensures public health safety with:

- Support for **public health investigations** and monitoring Vermont for **disease outbreaks**
- **Emergency response services** for biological and chemical threats
- **Environmental testing** for food, drinking water and radiation exposure
- **Clinical testing** for public health settings and to help underserved populations.



Outbreak Responses

One of the Lab's main functions is monitoring and responding to disease outbreaks in Vermont. The Lab's role in these responses included **creating testing protocols and reporting mechanisms**, assembling and distributing **testing kits**, **analyzing specimens** to identify sources and test for human exposures, and **tracking COVID-19 variants** through genomic sequencing.

We responded to

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outbreaks in 2022!

- ✓ COVID-19
- ✓ Mpox (human monkeypox virus)
- ✓ Avian influenza (bird flu)
- ✓ Water-borne *Legionella pneumophila*
- ✓ Food-borne *Listeria monocytogenes*
- ✓ *Salmonella infantis* in animal feed
- ✓ *Cronobacter sakazakii* in infant formula

We work closely with our partners in these investigations, including the Centers for Disease Control and Prevention (CDC), Federal Drug Administration (FDA), United States Department of Agriculture (USDA), Vermont Department of Health's Epidemiology Unit and Environmental Health Divisions, and the Vermont Agency of Agriculture.

February 2023

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Ensuring Preparedness in Radiochemistry

Most radiological air sampling techniques are used to monitor nuclear reactors and their surrounding areas. It has been essential to develop testing techniques to analyze air quality as the threat of nuclear war and release of radioactive materials has increased.

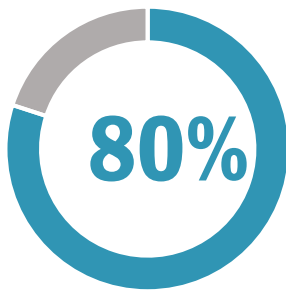


In 2022, the Lab with Radiological Health, implemented an air sampling program in case of a nuclear or radiological event from the escalating war in Ukraine.

The Lab's air sampling tests determine what type of radioactive gases and particles are in the air and in what concentration. If we were aware of a radiological event in Ukraine, air testing would become more frequent to assess for any effects here in Vermont.



Increased Accessibility of Drinking Water Testing

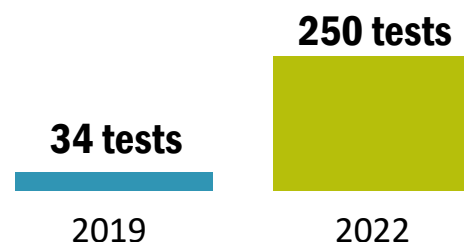


of water samples received in 2022 came through the Drinking Water Drop-Off Program.

- Inorganic chemical tests (Kit ID) have significantly increased since 2019, likely due to new permitting requirements for new wells.
- Gross alpha water samples also increased by 21% from 2019 (1,149) to 2022 (1,396).

In 2021, the Lab launched the statewide Drinking Water Drop-off Program making it easier for Vermonters to get their water tested by providing sample drop-off locations throughout Vermont. A total of 16,904 samples were received.

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