

The Vermont Department of Health Laboratory supports public health investigations, maintains a safe and secure lab, participates in national and international lab networks, and protects Vermonters from disease outbreaks. These highlights represent some of the Lab's accomplishments in 2018.

## Testing & Tracking Diseases

- The Health Department Lab is the only lab in Vermont that performs rabies testing in animals for diagnostic and surveillance purposes.
- In cases of human rabies exposure, the Lab works to return results within 24 hours so any treatment needed can begin quickly.
- The Lab tests rabies samples submitted through the U.S. Department of Agriculture Wildlife Services Program to determine the efficacy of rabies vaccine.

**Rabies  
Specimens  
Tested**

**1,127**

## Testing for Lead in School Drinking Water

The Lab tests drinking water from homes, businesses and towns across Vermont. In 2018, the Lab tested drinking water from **16 schools** as part of a pilot project that will be scaled up to test drinking water in every school and child care facility in Vermont. **Of the 1,451 samples tested, 29 samples from five schools showed elevated levels of lead** above the Environmental Protection Agency's action level.



**The Lab completed the analysis and reporting of up to 300 water samples from schools per week.**

## Tracking Injection Drug Use and Sexually Transmitted Infections

The Drug Injection Surveillance and Care Enhancement for Rural Northern New England (DISCERNNE) project aims to discover if there is a higher incidence of sexually transmitted infections (STIs) associated with opioid injection use in areas along the Connecticut River. Project partners interview people who use opioids and provide rapid STI screening in the field.

**Preliminary results show a higher than expected rate of hepatitis C virus among project participants.**

To support this work, the Lab:

- Performs testing for hepatitis B and confirmatory testing for hepatitis C, syphilis and HIV.
- Forwards specimens to the CDC Global Hepatitis Outbreak and Surveillance Technology (GHOST) lab for next generation sequencing.
- Arranges courier transport of specimens.

## Supporting Statewide Training & Collaboration

By hosting trainings and workshops, the Lab strengthened relationships with state and national partners and provided a better understanding of their shared work and goals.

**8** trainings & workshops  
hosted in 2018

### **Campylobacter Isolation and Identification in Foods Workshop** May 2018

- Participants from the cheese-making industry learned proper sample collection techniques and how to test for Campylobacter, a leading cause of food-borne illness in Vermont.

### **Biothreat Agents 101 Workshop** December 2018

- Participants from five hospital labs in Vermont attended. Hospital labs are most likely the first to detect a possible biothreat agent, and this training reinforced the process for referring specimens to the Health Department Lab for appropriate testing.

## Ensuring Preparedness as a Biosafety Level 3 Laboratory

Biosafety level 3 (BSL-3) indicates the level of precaution observed at the Lab when working with organisms that can cause serious or lethal harm through inhalation. The Lab maintains a secure BSL-3 suite in its facility to handle such events.



## Participating in National and Global Public Health Networks

### **CaliciNet**

- National norovirus outbreak surveillance network that allows for quick identification of outbreaks and the source of the outbreak
- The Lab is the only norovirus testing lab in Vermont.

### **World Health Organization Influenza Surveillance Lab**

- Global network that tracks what influenza viruses are circulating and detects changes in the virus
- Helps determine what influenza strains to include in the next year's vaccine

### **PulseNet**

- National network that groups together people who most likely ate the same contaminated food to identify clusters of foodborne illness
- Allows for earlier identification of the cause of an outbreak and earlier intervention

### **CDC Lab Response Network**

- Network of national and international labs that allows for quick response to public health emergencies
- Integrates public health labs, veterinary, agriculture, military, and water and food-testing labs