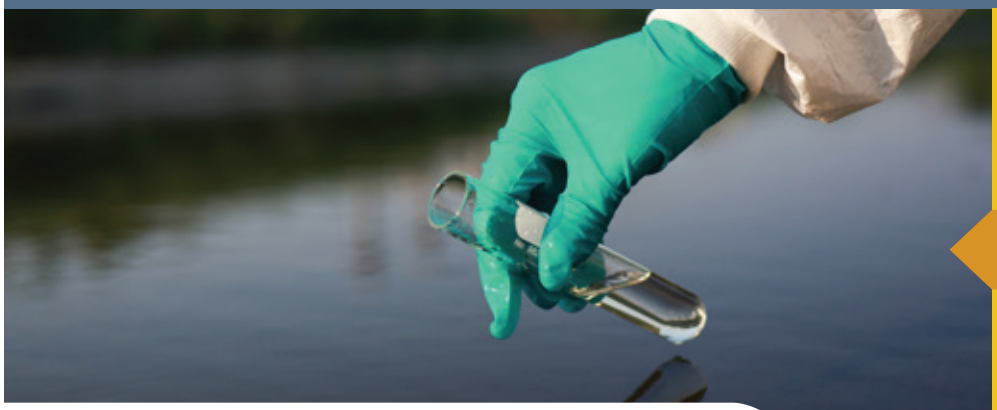
DISEASE PREVENTION AND EPIDEMIOLOGY NEWSLETTER



EpiNotes

SUMMER 2025

IN THIS ISSUE:

Enhancing Hepatitis C Follow-up Through Provider Collaboration

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Hepatitis C (HCV) continues to be a priority for public health intervention in South Carolina. DPH conducts follow-up on all newly reported HCV cases to confirm patient notification, assess linkage to care, and identify potential barriers to treatment.

Thanks to advancements in medicine, HCV is now a curable condition. With direct-acting antivirals, most people can be cured within eight to 12 weeks. As part of our surveillance and response efforts, DPH case workers engage with patients to ensure they are informed of their diagnosis, connected to care, and supported throughout the treatment process.

This work strengthens patient outcomes while informing data-driven efforts to reduce transmission and enhance care access in regions experiencing higher case rates.

Health care providers are key partners in this public health initiative. Under S.C. Code 44-29-10 and SC Regulations 61-20 and 61-21, HCV is a legally reportable condition. When a positive result is received, DPH routinely follows up with the provider and the patient to support case verification and care coordination.

Providers are encouraged to:

- Notify patients at the time of the diagnosis that they may be contacted by DPH as part of standard public health protocol
- Respond to DPH requests for clinical information to assist with follow-up

We only request relevant data necessary for confirming case status, facilitating linkage to care, and guiding prevention efforts.

To further support engagement, DPH offers education and training on HCV surveillance, legal reporting requirements, and best practices for communicating with patients. To schedule a training, please contact **Birddie Felkel** (felkelba@dph.sc.gov).

We deeply appreciate your continued partnership in protecting the health of our communities. By working together to ensure thorough follow-up and care coordination, we can significantly reduce HCV and improve the lives of those affected.

For additional information, please contact **Aliaya McFadden** (mcfadda@dph.sc.gov) or **Kenya Whitfield** (whitfik1@dph.sc.gov). For complete information on reporting requirements, see the South Carolina List of Reportable Conditions.

Wastewater surveillance: A Valuable Tool for Respiratory Disease Monitoring

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Wastewater surveillance complements traditional epidemiologic monitoring methods by monitoring pathogens shed in human waste, providing population-level data regardless of health care-seeking behavior, symptom presence, or testing availability.

The South Carolina Department of Public Health (DPH) Wastewater Surveillance Program launched in 2022 as a partner in the Centers for Disease Control and Prevention's (CDC) National Wastewater Surveillance System (NWSS). The program currently monitors SARS-CoV-2, influenza A, influenza B, and respiratory syncytial virus (RSV) through partnerships with 26 wastewater treatment utilities across all four regions of the state, serving 22.15% of South Carolina's population. Samples are analyzed at the Public Health Laboratory using digital PCR technology, with results uploaded weekly to the CDC's data collection hub.

Unlike clinical surveillance systems that depend on people seeking health care, getting tested, and having results reported, wastewater surveillance captures viral presence from entire sewershed populations. This includes asymptomatic infections, people who choose not to seek medical care, and those who lack access to health care services. The approach provides a comprehensive picture of disease prevalence in communities, particularly for respiratory viruses, where infections may go undetected through traditional surveillance.

Wastewater data is analyzed to account for variations in flow rates, population served, and laboratory methods. The CDC uses a standardized metric called Wastewater Viral Activity Level (WVAL) to categorize viral activity as minimal, low, moderate, high, or very high compared to historical baseline levels, allowing for comparisons across different treatment plants and time periods.

Analysis of South Carolina data demonstrates correlations between wastewater viral activity levels and emergency department visits for respiratory illnesses, with correlation coefficients ranging from 0.67 to 0.96 across different pathogens. These findings validate wastewater surveillance as an indicator of disease activity in communities, potentially providing health care providers and facilities with population-level intelligence for public health decision-making.

While wastewater surveillance cannot replace traditional surveillance methods, it serves as a complementary tool that enhances situational awareness, supports resource planning, and provides independent verification of disease trends. This approach offers a window into community-level disease dynamics that can inform public health responses and help guide targeted interventions.

For more information about South Carolina's wastewater surveillance program, please contact **Heidi Schmidt** at schmidhl@dph.sc.gov.

Brucella Exposures Still Require Public Health Attention and Action

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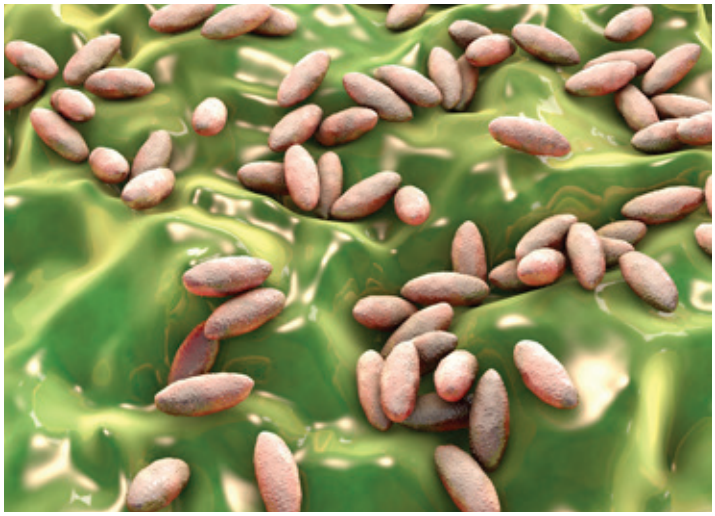
In early 2025, the Federal Select Agent Program removed Brucella from the **list of Select Agents** and clinical laboratories no longer have federal reporting responsibilities. However, this change in designation does not decrease the hazards of working with this organism or its biosafety level designation. Brucellosis still requires public health attention and action.

Brucellosis is a disease caused by one of four disease-causing Brucella species: *Brucella abortus, canis, melitensis, and suis*. If an infection with one of these organisms is undetected, left untreated, or if treatment is delayed, infections can spread to the heart (valves), bone, nervous system, liver, or spleen. Due to the severity of illness, low infectious dose, and potential for aerosolization of the organism, this organism is classified as a BioSafety Level 3 organism. Level 3 organisms require enhanced safety practices to prevent laboratory acquired infections. Brucellosis is the most commonly reported laboratory-associated bacterial infection[1].

When someone is diagnosed with Brucellosis, it is important to work with DPH to determine all potential avenues of exposure to the organism. Assessment begins from the point of patient exposure and continues through successful antibiotic treatment. In the Microbiology laboratory, exposures occur when laboratory technologists observe open culture plates, manipulate colonies, and perform panel/automated test methods outside of the Biological Safety Cabinet. Exposures may be increased if the microbiology laboratory is located within an open lab space or is used as a pass-through for other laboratory sections. All laboratorians should wear proper PPE and report any incident where a specimen is aerosolized (a spill or splash) or the specimen has come into contact with broken skin.

Brucella infections can be acute or insidious in nature, where symptoms may be mistaken for other illnesses and ignored. Hospitalized patients tend to have acute infections or complications from misidentified illness and, therefore, contact with or aerosolization of the patient's blood poses a risk of Brucella transmission to health care personnel. To detect all potential clinical exposures, the patient's medical activity must be tracked from the onset of symptoms through the entire course of the illness.



Identifying possible exposures requires a collaborative effort between the Public Health Laboratory, Epidemiology, hospitals, and providers in our communities. Common questions for consideration are:

- What was the condition of the patient upon arrival at the emergency room?
- How was the patient transported to the facility?
- Was CPR performed on the patient?
- Was the patient intubated?
- Did the patient visit multiple health care facilities?
- Were specimens collected? What types of specimens were collected? Blood specimens?
- What tests were performed? Manual differential? Blood cultures? Urine cultures?
- What procedures were performed? Biopsies? Bone marrow aspirate? Lumbar puncture? Biopsy?

Based on CDC's **Brucellosis Reference Guide: Exposures, Testing, and Prevention**, exposures are classified as high, low and minimal but not zero. Depending on the exposure risk level, public health follow-up may include symptom monitoring for six weeks, possible serological monitoring, and post exposure prophylaxis. It is important for all health care staff to be aware of the potential exposures to Level 3 organisms within the hospital and to ensure measures are in place ahead of time to help mitigate possible occurrences.

References

1. CDC. **Laboratory Risks for Brucellosis.** Brucellosis. Published 2024.
2. **Brucellosis Reference Guide: Exposures, Testing, and Prevention.** Centers for Disease Control and Prevention; 2017.

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