WASTEWATER ACTION ALLIANCE

Strengthening Measles Response Systems with Wastewater Monitoring

A Highly Contagious Threat to Public Health

Measles is one of the world's most contagious diseases. If one person has measles, up to 9 out of 10 people nearby will become infected if they are not protected. Measles is airborne and can lead to severe complications, especially in children under 5, and death. Symptoms usually appear 7 to 14 days after contact with the virus.[1] Measles is preventable through immunization, which is typically administered during childhood.

Last year, the U.S. recorded its highest number of measles cases since the disease was declared eliminated in our country in 2000 — and the most confirmed infections in more than 30 years.[2] In 2025, more than 2,000 measles cases were confirmed across 45 localities, resulting in three deaths.

As we enter 2026, more than 1,200 new measles cases have been reported across 31 jurisdictions. With the continued spread, the U.S. faces a growing risk of losing its elimination status.[3]

Testing for Measles in Wastewater

Detection of measles RNA in wastewater indicates that one or more individuals in the community are shedding measles RNA through excretions such as feces, urine, or saliva. WastewaterSCAN developed and validated a highly specific and sensitive test that detects measles RNA in wastewater from people who are infected with the virus.

Since scaling measles monitoring in May 2025 to all 147 WastewaterSCAN sites across 40 states, there have been detections at 37 WastewaterSCAN sites across 20 states*: Alaska, California, Colorado, Connecticut, Florida, Georgia, Iowa, Idaho, Illinois, Indiana, Kansas, Maryland, Michigan, Minnesota, Nebraska, Nevada, New York, Texas, Utah, and Vermont.

WastewaterSCAN is in close contact with local public health leaders to discuss and help interpret the wastewater data, providing timely information to help inform responses at the community level. WastewaterSCAN measles data available on data.wastwaterscan.org

Early Warning System

Wastewater data serves as a valuable complement to traditional infectious disease surveillance methods, such as clinical testing. Early community detection of measles is crucial because it enables rapid implementation of containment measures that can prevent large outbreaks. Data show that an advantage of monitoring wastewater for measles is its use as an early warning system, detecting the presence of the virus before individuals develop symptoms or seek medical care. Wastewater monitoring provides a community-wide snapshot of diseases circulating, showing virus levels and trends that can help inform personal and public health decisions.

Wastewater Tracking Noted by Health Officials in Measles Response

*"**Wastewater sampling** is a new and useful tool for public health. Information from wastewater will be most useful when it is positive in areas where no one has been identified with measles. When that happens, we will be able to **use the data to alert clinicians in those areas to make sure they are aware** someone with measles may come in for care."*

Dr. Leisha Nolen, state epidemiologist at the Utah Department of Health and Human Services (DHHS).[4]

*"We think this [detection in wastewater] is real. And **we want to use it to say to people, 'Hey, measles is in the area**. Please check your immunity records. Consider making sure you're up to date and your children are up to date on the measles vaccine."*

Dr. Christine Hahn, Idaho Department of Health and Welfare Epidemiologist.[5]

Wastewater Monitoring in Action

As measles began to spread across the country, detections of wild-type measles virus provided critical data to public health leaders, helping to guide response efforts and alert communities to the presence of the disease.

NEBRASKA

On January 16th, 2026, measles was first detected in wastewater in Lincoln, located in Lancaster County, at the Theresa Street Water Resource Recovery Facility that participates in WastewaterSCAN. Soon after the detection, the Lincoln-Lancaster County Health Department issued a news release confirming a detection of measles in wastewater. The release advised the public to check their measles vaccination status and to call their healthcare provider if they had symptoms of measles. Additional measles detections by the WastewaterSCAN program occurred on January 26th and January 28th. On January 28th, the Lincoln-Lancaster County Health Department reported its first case of measles since 1990.

IDAHO

On August 1, 2025, the Idaho Department of Health and Welfare issued an alert for healthcare providers following the detection of measles in wastewater by WastewaterSCAN on July 29 and July 30. The alert advised providers to prepare for potential measles cases, and to consider measles when diagnosing patients with compatible symptoms. On August 7, 2025, public health officials confirmed two clinical cases of measles in the community.

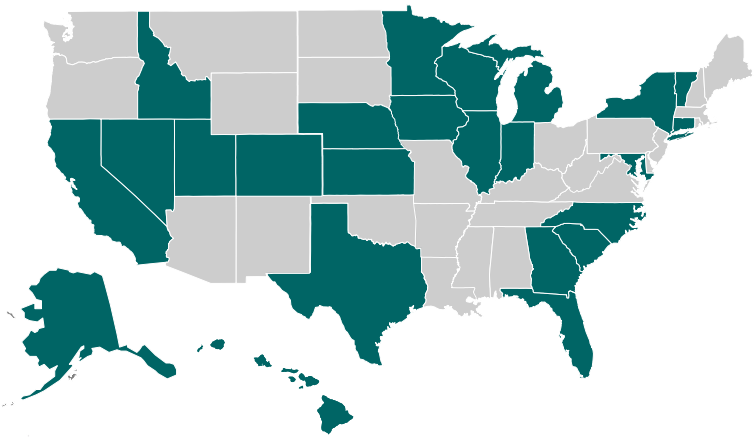
CALIFORNIA

In May 2025, WastewaterSCAN alerted the California Department of Public Health of measles detections in Sacramento wastewater on May 20 and 21. In response, Sacramento County Public Health issued a measles health alert, urging vigilance and reinforcing best practices for measles prevention. On June 16, 2025, Sacramento County Public Health reported a clinical measles case in the area.

MICHIGAN

On June 9, 2025, measles was first detected in wastewater in Traverse City, Michigan. Since the first detection, WastewaterSCAN has identified 11 detections in Traverse City wastewater*. On June 18, 2025, Grand Traverse County health officials confirmed the first measles case in the county. By June 24, 2025, the Grand Traverse County Health Department and the Michigan Department of Health and Human Services declared a measles outbreak, defined as three or more related cases of measles in a single county.

States shown in dark green indicate at least one positive measles detection in wastewater, based on CDC National Wastewater Surveillance System (NWSS) reporting as of February 28, 2026.



Funding for Wastewater Monitoring

Whether it is measles, seasonal viruses, or the next pandemic, wastewater monitoring plays a crucial and cost-effective role in detecting disease threats before they show up in hospitals, empowering communities and individuals to respond and make health care decisions. Sustainable federal funding for wastewater monitoring is critical to the continued use and expansion of wastewater monitoring.

For more information visit Wastewateraction.org

[1] CDC: About Measles (May 29, 2024)
[2] Johns Hopkins International Vaccine Access Center: U.S. Measles Cases Hit Highest Level Since Declared Eliminated in 2000 | International Vaccine Access Center (July 7, 2025)
[3] CDC: Measles Cases and Outbreaks (March 6, 2026)
*WastewaterSCAN measles data, March 6, 2026.
[4] Utah Department of Public Health press release on measles detection in wastewater (7/11/2025)
[5] Idaho Capital Sun, Kyle Pflannenstein: Measles detected in wastewater in Coeur d'Alene. But no Idaho cases reported amid national outbreak (8/5/2025)
*WastewaterSCAN data June 9 - August 18, 2025