Wastewater Monitoring

CDC | U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION

Data from CDC's Wastewater Program allows anyone, from clinicians to members of the public, to understand infectious disease levels in their community.

Wastewater-Informed Public Health Actions

- Alerting people when illnesses might be spreading or increasing in their community.
- Updating health care providers about disease trends that help determine testing and treatment plans.
- Helping determine placement of vaccination or testing locations.
- Helping hospitals plan for surges.

CDC's Wastewater Program monitors infectious diseases by analyzing wastewater (sewage) from communities across the United States, providing timely, population-level data that can complement other public health information. Because wastewater monitoring can detect changes in disease trends before clinical cases are reported, it serves as an important early warning system that supports faster, data-driven decisions. These insights can be used to guide prevention and response strategies, helping policymakers and public health officials better protect communities.

> **95% of adults surveyed said they would take steps to protect their health if they saw high wastewater viral activity levels in their community.**

Investment in Wastewater Monitoring

CDC awarded more than $500 million in supplemental wastewater funding for state, local, territorial, and tribal health departments. These investments support an expert workforce, testing capacity in public health laboratories, early outbreak detection, data analysis and visualization, and six wastewater Centers of Excellence.

Pre-Pandemic: $0

Prior to the COVID-19 pandemic, **there was no national wastewater monitoring network** in the U.S.

2021-2025

$500M+ Awarded

CDC established a **robust and nimble national wastewater monitoring system** for infectious disease threats.

Explore near real-time wastewater data for common respiratory viruses like F**lu, RSV, and COVID-19,** and for outbreaks like **Bird Flu (H5), Monkeypox, and Measles.**

● Detection ● No Detection ○ No Data
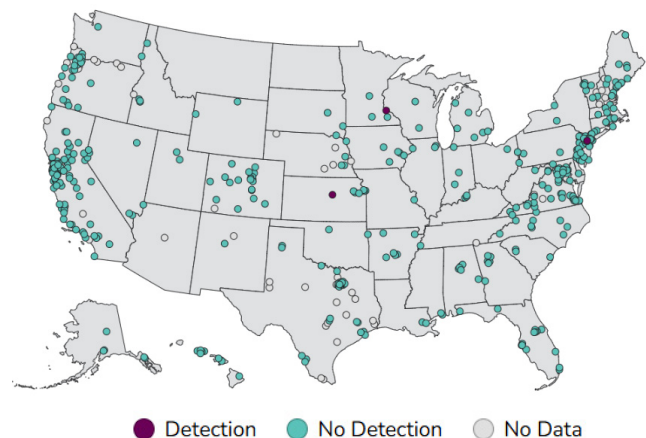
www.cdc.gov/wastewater

Wastewater Monitoring Informs Public Health Action Nationwide

Colorado

In Colorado, wastewater monitoring for **enterovirus D68 (EV-D68)** helped detect the virus up to a month before identifying a case through clinical testing. EV-D68 typically causes respiratory illness, which can be mild (like a common cold) but can also play a role in more severe illness. Early detections of EV-D68 in wastewater help healthcare facilities prepare for a potential surge during the respiratory virus season.

Houston

Citywide wastewater monitoring helped local health department staff track respiratory diseases such as **influenza and RSV** in the Houston area, including in K-12 schools. High, consistent influenza virus detections in wastewater at the schools activated community vaccination clinics. These clinics also offered opportunities for families to catch up on flu and other routine vaccinations.

Los Angeles County

In 2025, the Los Angeles County Department of Public Health declared a community-wide **hepatitis A** outbreak following a rise in cases and increased virus levels detected in wastewater. Traditional clinical hepatitis A virus surveillance often misses cases due to patients who don't seek clinical care or receive testing. Los Angeles County used wastewater monitoring to help fill in gaps in hepatitis A surveillance and inform efforts to stop outbreaks.

Wastewater Monitoring Fast Facts

1500 Communities representing 150 million people (**45% of the US population**) are covered by wastewater monitoring.

$500M+ Awarded to health departments in all **50 states, 7 local jurisdictions, 7 territories**, and some **tribal communities** for wastewater monitoring activities.

6 Wastewater Centers of Excellence advance wastewater monitoring across the US through partnerships between public health departments and academic institutions in the **City of Houston, California, Colorado, New York, North Carolina, and Wisconsin.**

New Mexico

Health officials in New Mexico partnered with Rice University to implement weekly wastewater testing for **measles** in spring 2025, in response to a growing outbreak in the region. The measles virus was detected in wastewater six days before the first clinical case was reported in the state. Information from wastewater testing directed health department strategies such as increasing vaccine availability and following up with exposed individuals to stop further spread.

West Virginia

In 2023, West Virginia created a mobile wastewater monitoring laboratory to gather **COVID-19 and norovirus** data while hosting the National Scout Jamboree event. Wastewater testing offered an efficient approach to daily testing of more than 15,000 individuals. Wastewater testing did not identify any outbreaks, and participants could be reassured that the event was safe from COVID-19 and norovirus.

Learn how Wastewater Monitoring Works

For more information, visit **www.cdc.gov/wastewater**