

# WASTEWATER SURVEILLANCE FOR COVID-19: FAST FACTS

Wastewater surveillance – the ongoing systematic testing, analysis, and interpretation of wastewater data to inform public health practice – has earned a reputation as a valuable health tool during the COVID-19 pandemic

## A new application for a seasoned technology

Although already in use for 20 years, wastewater surveillance has rapidly expanded during COVID-19 as an effective way to track disease outbreaks, trends, and community transmission. Since March 2020, public health officials have used SARS-CoV-2 concentrations in untreated wastewater from facilities (university dorms, nursing homes, veterans' homes, prisons, mental health facilities) and communities (by sampling from manholes in the sewer network or at the influent to water resource recovery facilities) to:

- Confirm clinical testing data
- Provide a leading indicator for the number of COVID-19 cases and related hospitalizations
- Indicate the presence of variants of concern
- Shape public health policies
- Direct public health resources—such as increased testing of individuals—where needed

## Offers distinctive benefits relative to individual testing

- 1 Anonymous:** a pooled wastewater sample captures an entire group, thereby protecting individual privacy
- 2 Cost-effective:** analyzing a single wastewater sample for SARS-CoV-2 costs can capture hundreds to millions of people
- 3 Flexible:** wastewater testing can provide relevant information throughout an outbreak, and is useful for other diseases besides COVID-19
- 4 Unbiased:** wastewater results are not influenced by testing availability or healthcare access

## Leveraged by the Centers for Disease Control and Prevention

CDC established the National Wastewater Surveillance System (NWSS) in late 2020 to understand COVID-19 disease spread in US communities. NWSS has grown to include 37 states, four cities, and two territories, with the health department partners regularly using wastewater data to make public health policy. Although still focused on COVID-19, NWSS is designed to expand to other public health concerns in the future.

### What's next?

Both NWSS and wastewater surveillance are here to stay. Beyond COVID-19, wastewater surveillance will be useful for tracking the presence of antibiotic resistant bacteria, other diseases (influenza, norovirus, Hepatitis A), and maybe even markers of human health.

### How to get started?

A successful wastewater surveillance program starts with a strong collaboration between public health and wastewater partners. For more information on wastewater surveillance generally, and how to partner with health departments for NWSS-related programs specifically, please visit [nwbe.org](http://nwbe.org).

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