

CDC turns to wastewater data to track COVID's spread

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(HealthDay)—It's less enchanting than reading tea leaves, but federal

health officials announced Friday that they are expanding nationwide efforts to track COVID-19 by monitoring virus levels found in raw sewage.

The U.S. Centers for Disease Control and Prevention expects to add an additional 250 surveillance sites over the next few weeks to a list of more than 400 places that already regularly test their [wastewater](#) for bits of COVID-19 virus, Amy Kirby, program lead for the CDC's National Wastewater Surveillance System, said during a morning media briefing.

"Because increases in wastewater [virus] generally occur before corresponding increases in clinical cases, wastewater surveillance serves as an early warning system for the emergence of COVID-19 in a community," Kirby said. "These data are uniquely powerful because they capture the presence of infections from people with and without symptoms, and they're not affected by access to health care or availability of clinical testing."

The CDC is also adding [wastewater surveillance data](#) to the agency's COVID Data Tracker site, so people can see trends in their communities, Kirby added.

Estimates suggest between 40% and 80% of people infected with COVID-19 shed viral RNA in their feces, whether or not they've developed symptoms, Kirby said.

"The shedding in feces starts very early after someone is infected. It's in fact one of the first signs that we see of infection, which is really important for this early warning capability for wastewater," Kirby said. "We see those rates go up very, very high, so lots of virus shed in feces very early in the infection, and then it tails off."

With this in mind, the CDC started the National Wastewater

Surveillance System (NWSS) in September 2020 to forewarn communities facing a future COVID-19 surge. The NWSS now collects more than 34,000 samples daily representing approximately 53 million Americans, Kirby said.

Public health agencies can use COVID wastewater tracking to plan where to place mobile testing and vaccination sites within communities, as well as warn local hospitals to brace themselves for an upcoming surge, Kirby noted.

Some states are also performing genetic sequencing on their wastewater samples, she added, to track the potential emergence of new [COVID variants](#).

New York City's wastewater tracking program recently detected COVID-19 fragments with unique mutations never before seen in human patients. These "cryptic lineages" could be evidence of new variants, researchers reported Thursday in the journal [Nature Communications](#).

"Many of our states are sequencing their wastewater samples, and that data will be coming in to CDC within the next few weeks. We will have that available to monitor as well," Kirby said. "That's a very powerful method for tracking variants of concern in wastewater."

Tracking sewage for virus isn't a new concept, Kirby said. Locales overseas use wastewater as part of their polio eradication efforts, for example.

And while the NWSS was created as part of the COVID-19 response, the CDC is working to expand the system's ability to track other [pathogens](#).

Future targets will include antibiotic-resistant germs, foodborne

infections, influenza, and emerging fungal pathogens, Kirby said.

More information: Visit the [COVID Tracking Project](#) to see the new wastewater surveillance program.

SOURCE: U.S. Centers for Disease Control and Prevention, media briefing, Feb. 4, 2022 with Amy Kirby, PhD, MPH, program lead, CDC's National Wastewater Surveillance System

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