



## NEWS RELEASE

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### **Illinois Department of Public Health and the Discovery Partners Institute Announce Statewide System to Monitor COVID-19 in Wastewater**

*Analysis will start with 10 counties before expanding to statewide by year-end*

**SPRINGFIELD** - The Illinois Department of Public Health (IDPH) and the Discovery Partners Institute (DPI) today announced a statewide system to monitor the virus that causes COVID-19 and its variants in wastewater, providing public health officials with early warnings of a potential outbreak on a county-by-county basis.

SARS-CoV-2, the virus that causes COVID-19, is detectable in human waste nearly from the onset of infection, while symptoms may not appear for three to five days. IDPH is providing \$5.5 million to build and support the monitoring system for the next year.

“Data generated through sampling wastewater will help public health officials better understand the extent of COVID-19 infections in communities,” said IDPH Director Dr. Ngozi Ezike. “Wastewater testing has been used successfully in the past for early detection of diseases, such as polio. Measuring the virus levels in untreated wastewater can serve as an early indicator of increasing infections in a community and can inform our public health actions.”

Together IDPH and DPI will implement the program in phases, starting with sampling and analysis in 10 Illinois counties, expanding to 35 counties in mid-summer, and to all 102 Illinois counties by the end of the year. The 10 counties include Carroll, Cass, Franklin, Fulton, Jefferson, Lawrence, Livingston, Macon, Montgomery, and Vermilion.

Wastewater monitoring involves treatment plant personnel collecting 8-ounce (250ml) samples twice weekly and shipping them overnight for laboratory analysis. A rapid, automated sample processing and analysis system will be built to measure SARS-CoV-2 levels, which will indicate a rise or fall of COVID-19 infections in the community served by the treatment plant.

Samples will be further analyzed at Argonne National Laboratory and IDPH laboratories using genetic sequencing to track COVID-19 variants.

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DPI's Wastewater-Based Epidemiology (WBE) science team, led by University of Illinois Chicago (UIC) Professor Rachel Poretsky and DPI Senior Research Scientist Charlie Catlett, includes scientists at DPI, UIC, Northwestern University, the University of Illinois Urbana-Champaign, and Argonne National Laboratory. (Photos and b-roll are [here](#).)

The team has developed methods for assessing COVID-19 vulnerability by county and translating wastewater lab results into actionable information for public health.

“This project is a great example of DPI bringing the best scientists from its partner institutions to help Illinois address an urgent public health need,” said DPI Executive Director Bill Jackson. “Through this project as well as our support of the University of Illinois System’s COVID-19 testing efforts, we’ve demonstrated a nimbleness that is uncommon in academia, and that’s because we have all of the scientific talent and business acumen we need right here.”

“Wastewater analysis is an ideal method for understanding COVID-19 trends in communities, complementing individual testing and providing an early indicator of outbreaks,” said DPI Director of Research Dr. Venkat Venkatakrishnan. “The testing is sensitive enough to detect a handful of COVID-19 cases in a population of tens of thousands yet is completely anonymous.”

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