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TO: Public Release
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CC: File
SUBJECT: COVID in Decline

Yorkville-Bristol Sanitary District Sewer Surveillance Reports Sub-Threshold COVID-19 Detection

WHEATON, ILLINOIS—June 25, 2021—The proliferation of SARS-CoV-2 across the globe during 2020 created a health crisis pandemic on a scale not seen for a century. As communities explored options to get a handle on outbreaks, Yorkville-Bristol Sanitary District (YBSD) began a pilot program with RJN Group, Inc., and GT Molecular to leverage an existing technology in a new way: sewer surveillance to identify COVID-19 infections. Seven months after the program’s initiation, results have been gathered that give hope that YBSD’s communities have turned a corner.

Dr. Rose Nash, Director of Research and Development at GT Molecular, said that while it’s still early and more data is needed to confirm a trend, the results were very promising.

“We have been monitoring SARS-CoV-2 levels in wastewater for YBSD since last November and this week we are happy to report the viral load for the community has dropped below our ultrasensitive method’s threshold for detection.” Nash said. “In short, for the first time, we are seeing no detectable virus in the samples, which is a strong indicator that COVID-19 transmission levels with the community are very low.”

“Across the nation, we are seeing low levels and overall trends downward, but YBSD appears to be leading with only a few other communities to levels below our ability to detect,” she added.

Sewer surveillance, or sewer sampling, has been used for years in developing nations to track outbreaks of diseases, such as polio. Looking for innovative ways for the Sanitary District to use existing resources to inform public health officials during the pandemic, YBSD Executive Director Cyrus McMains, PE, said “Sewer sampling offered a novel first alert that outbreaks were on the horizon.”

“We worked with RJN and GT Molecular to provide our community with additional tools in their management of the local pandemic response,” Cyrus said. “The goal was to be able to detect the prevalence of elevated virus levels in the sewers and monitor the trends observed and then communicate this data to public health and academic entities for their use as quickly as possible.”

“After the year we just had, it’s a tremendous relief for us to observe evidence that we’re getting closer to putting COVID behind us,” he added.

RJN Group, Inc., a local engineering firm specializing in the assessment and rehabilitation of sanitary sewers, has created a partnership with GT Molecular, a molecular detection technology company, to open up new avenues of information to communities and provide officials with the best information available for making informed decision, in conjunction with CDC guidance. District staff uses existing sampling equipment to collect samples. GT Molecular then analyzes the samples with a custom process that provides information on infection rates. RJN created a dashboard, viewable at www.ybsd.org, to track the collected data.
