

# Further increase in coronavirus concentrations found in wastewater

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Coronavirus concentrations in Gothenburg wastewater are continuing to rise from an already high level, University of Gothenburg researchers have found. The current figures are well above the peak noted during the third wave last spring.

Last week, a sharp rise in SARS-CoV-2 in the wastewater of Gothenburg was reported. This was the largest increase in a single week since the [second wave](#) of the pandemic roughly a year ago.

The latest coronavirus measurements are based on samples taken in the week from 27 December 2021 to 2 January 2022, showing a further rise in one week.

The level is markedly higher than the crest of the third wave in late March 2021, and close to the second wave's much higher peak in December 2020.

"We're not quite there yet, but we're approaching the second wave's peak, and now just below it," says Heléne Norder, adjunct professor of microbiology at Sahlgrenska Academy, University of Gothenburg, and microbiologist at Sahlgrenska University Hospital.

## **Omicron overtakes delta**

The proportion of coronavirus accounted for by the [omicron](#) variant rose successively during December 2021, while the relative share of the delta variant fell. According to the latest measurements, omicron has now taken the lead.

"It's a clear trend: As in other countries, we're getting a very clear increase in omicron, and there now seems to be significantly more omicron than delta in the wastewater here in Gothenburg. Within a few weeks, in all probability, omicron will have completely crowded out the delta variant in the area," Norder says.

To a varying degree, the proliferation of coronavirus in wastewater, and thus increased prevalence of COVID-19 in the community, has made it possible to predict peak loads on health care during the pandemic. The question is what happens when omicron, which is described as more contagious but also causing milder disease, begins to predominate.

"Currently, we're not seeing any real improvement. Overall levels are rising, but the slightly smaller increase compared with the figures from the previous set of samples indicates a modest slowdown in its spread. But it's still extensive, with a lot of people in the community infected simultaneously. The delta variant is still around, and there are people who haven't yet been vaccinated."

## **More norovirus and influenza**

The monitoring of SARS-CoV-2 in wastewater has been underway since February 2020. It is done in collaboration with municipally owned Gryaab, which carries out [wastewater](#) treatment in Gothenburg and the surrounding municipalities. The company sends one sample a week, composed of samples collected daily, to Norder's research group.

The scientists regularly report their findings to care providers and the Infection Control Unit in Region Västra Götaland. These include figures on concentrations of influenza viruses, norovirus (the "winter vomiting bug") and the respiratory syncytial virus (RSV), which causes infections of the airway and can make young children seriously ill.

The latest week's analysis indicates rising concentrations of norovirus and Influenza A, while Influenza B and RSV are at very low levels.

Provided by University of Gothenburg

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