

NATIONAL WASTEWATER-BASED SURVEILLANCE OF SARS-COV-2 VARIANTS IN BELGIUM IN SUMMER 2023

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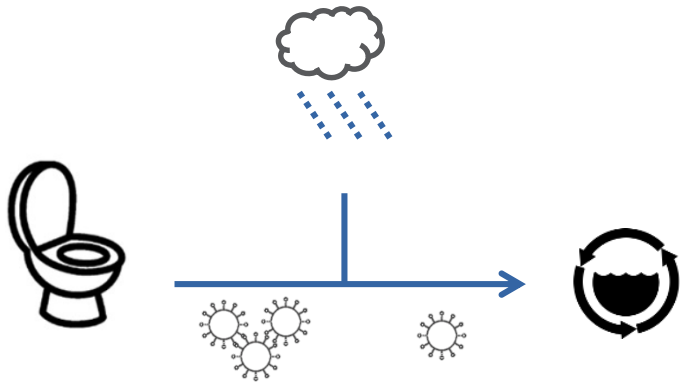
Town Hall X - November 2023

Surveillance systems of respiratory viruses

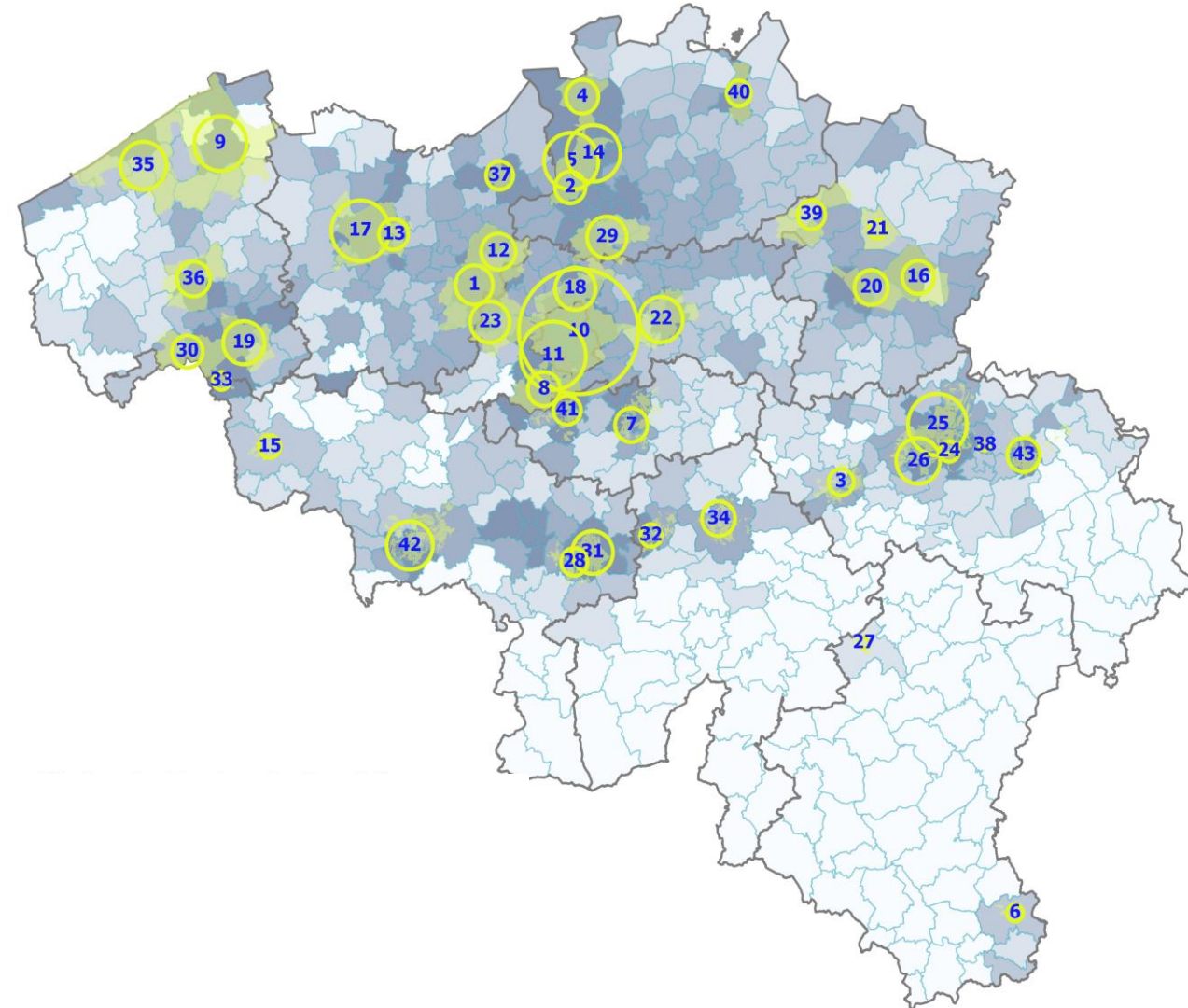
- Viruses of public health concern
- Representative
- Plan potential upscaling
- Monitoring the spread and intensity
- Important in the event of future pandemics
- Integrated genomic monitoring
- Ensure reliability and interpretability of findings

ECDC Operational considerations for respiratory virus surveillance in Europe, 18/07/2022

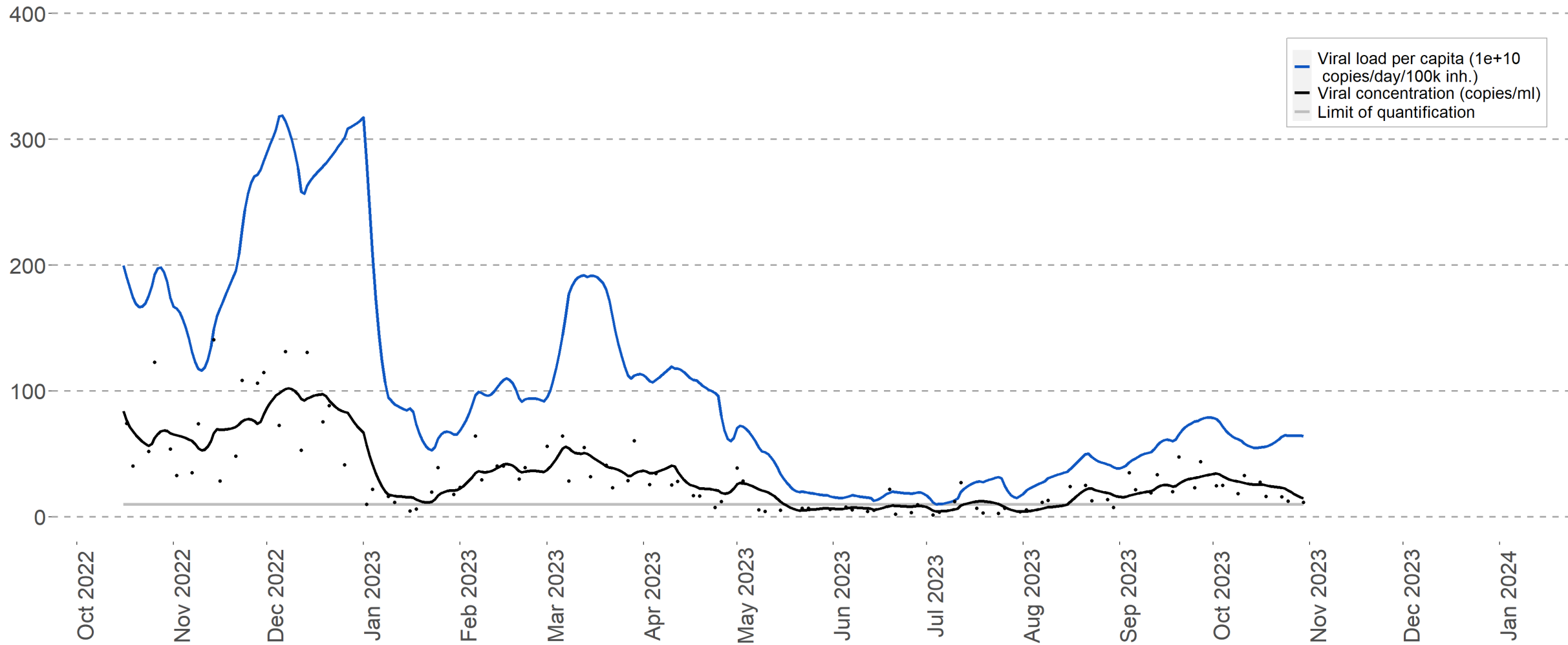
Impact for the wastewater-based surveillance in Belgium ?



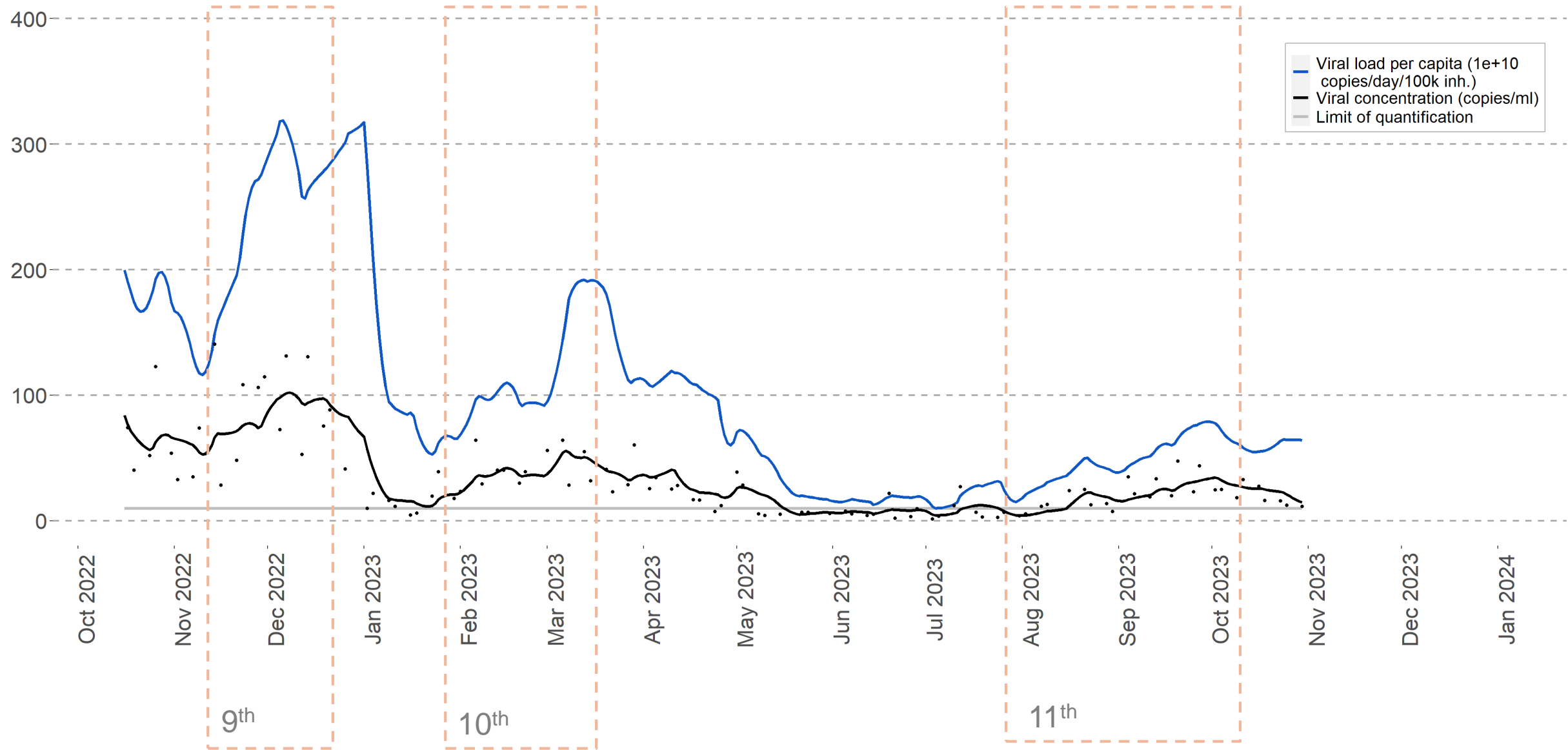
- Over 40 treatment plants in highly populated areas
- Sampled twice per week since Sept. 2020
- Around 13 000 samples analyzed
- SARS-CoV-2 viral cc. corrected for the rain impact
- Sequencing at spreads and peaks

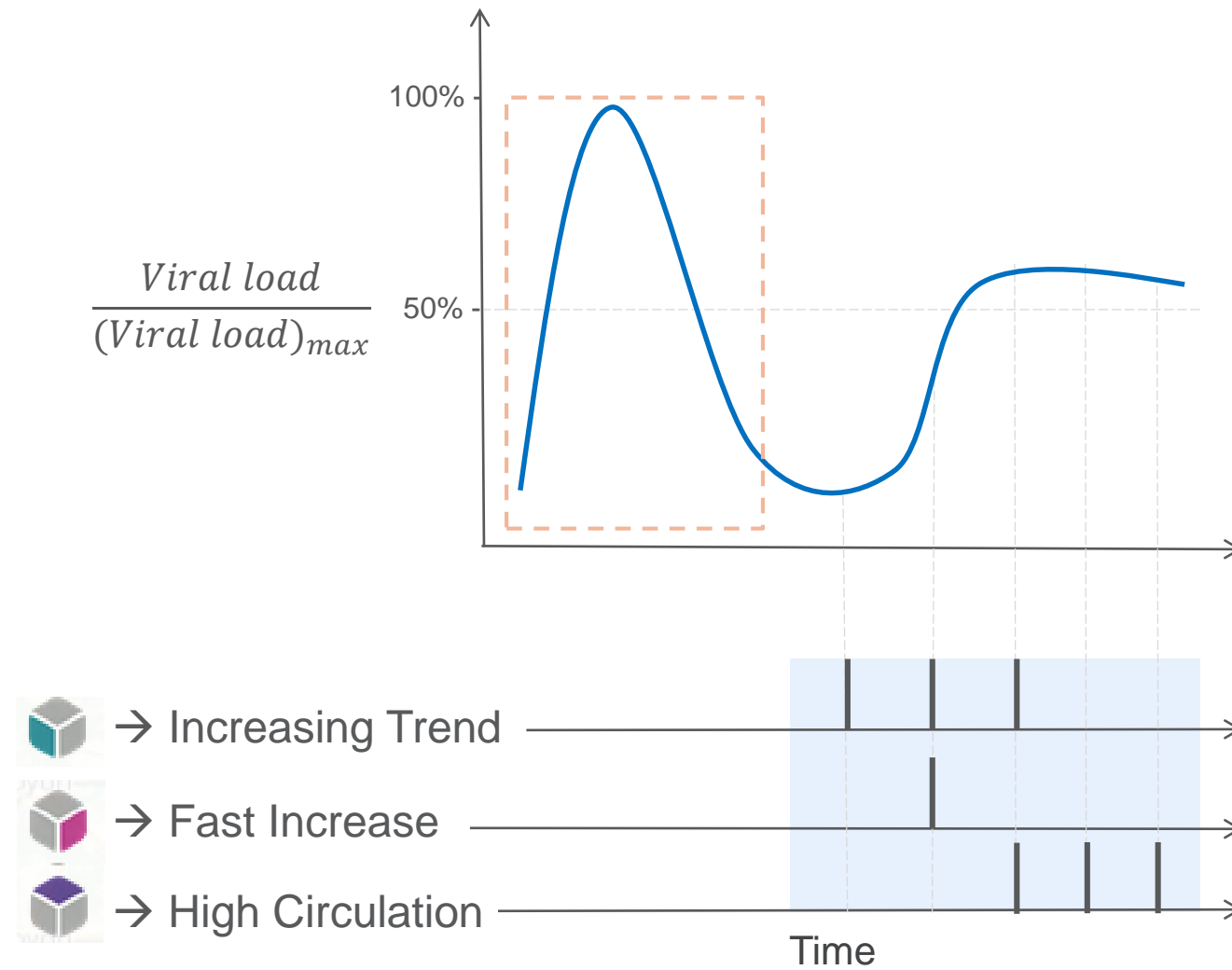


SARS-CoV-2 in wastewater at national level

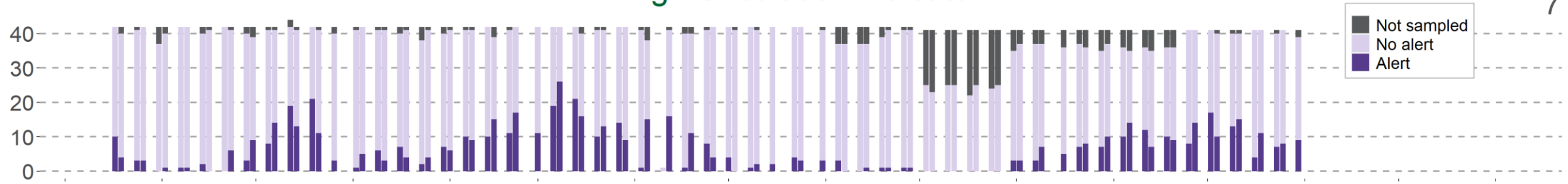


SARS-CoV-2 in wastewater at national level

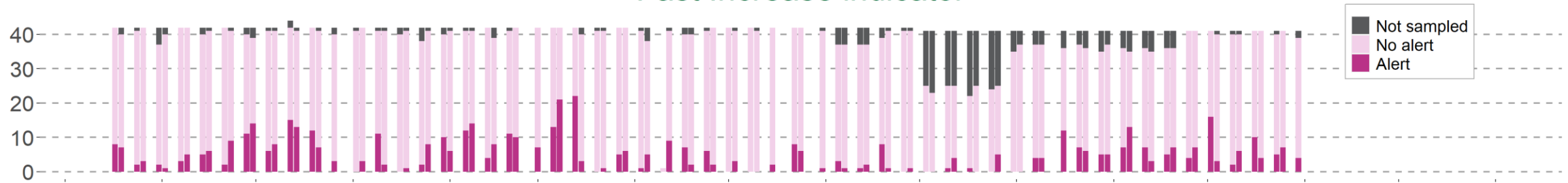




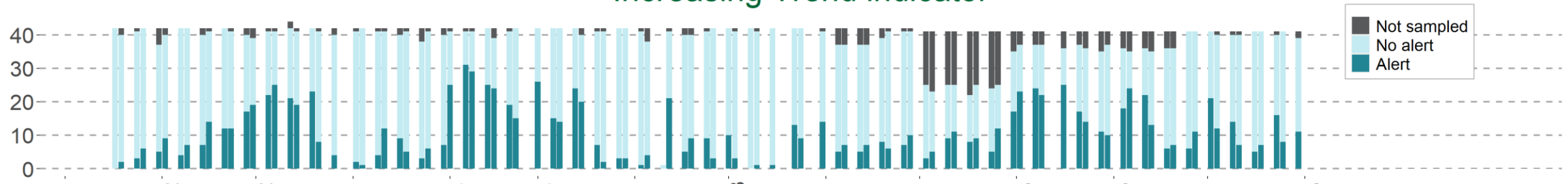
High Circulation indicator



Fast Increase indicator



Increasing Trend indicator



Oct 2022

Nov 2022

Dec 2022

Jan 2023

Feb 2023

Mar 2023

Apr 2023

May 2023

Jun 2023

Jul 2023

Aug 2023

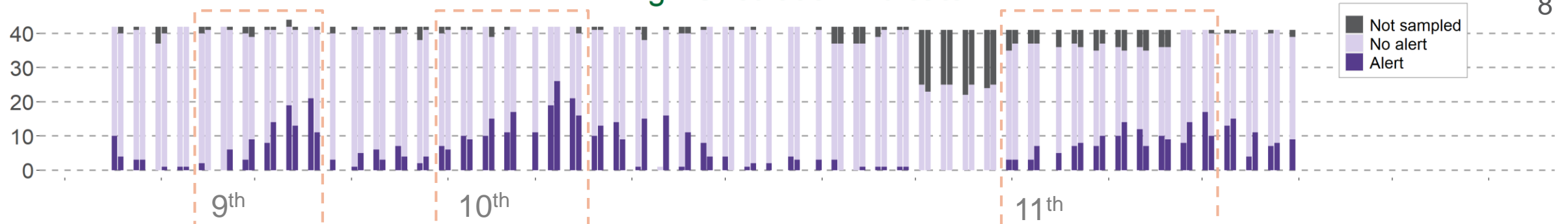
Sep 2023

Oct 2023

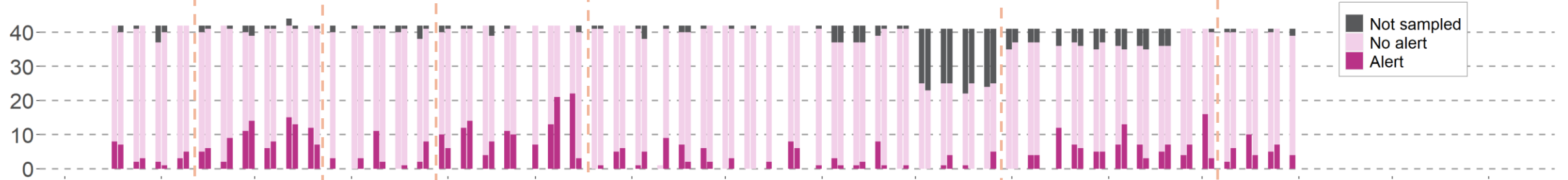
Nov 2023



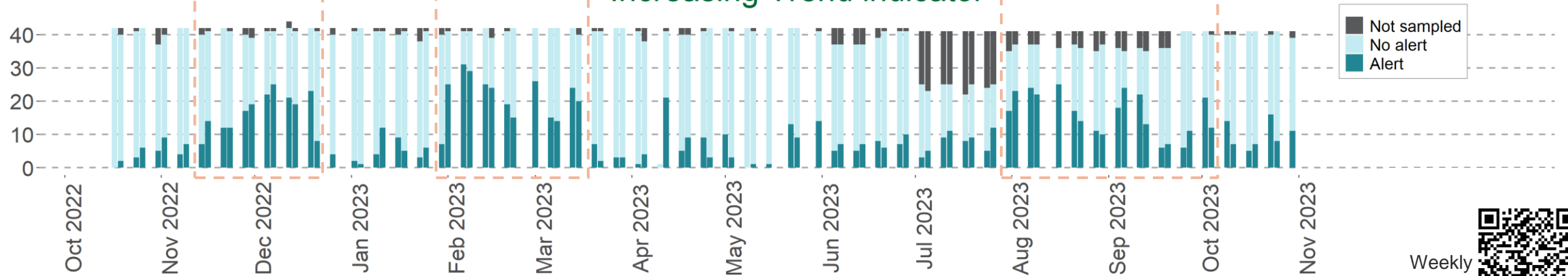
High Circulation indicator

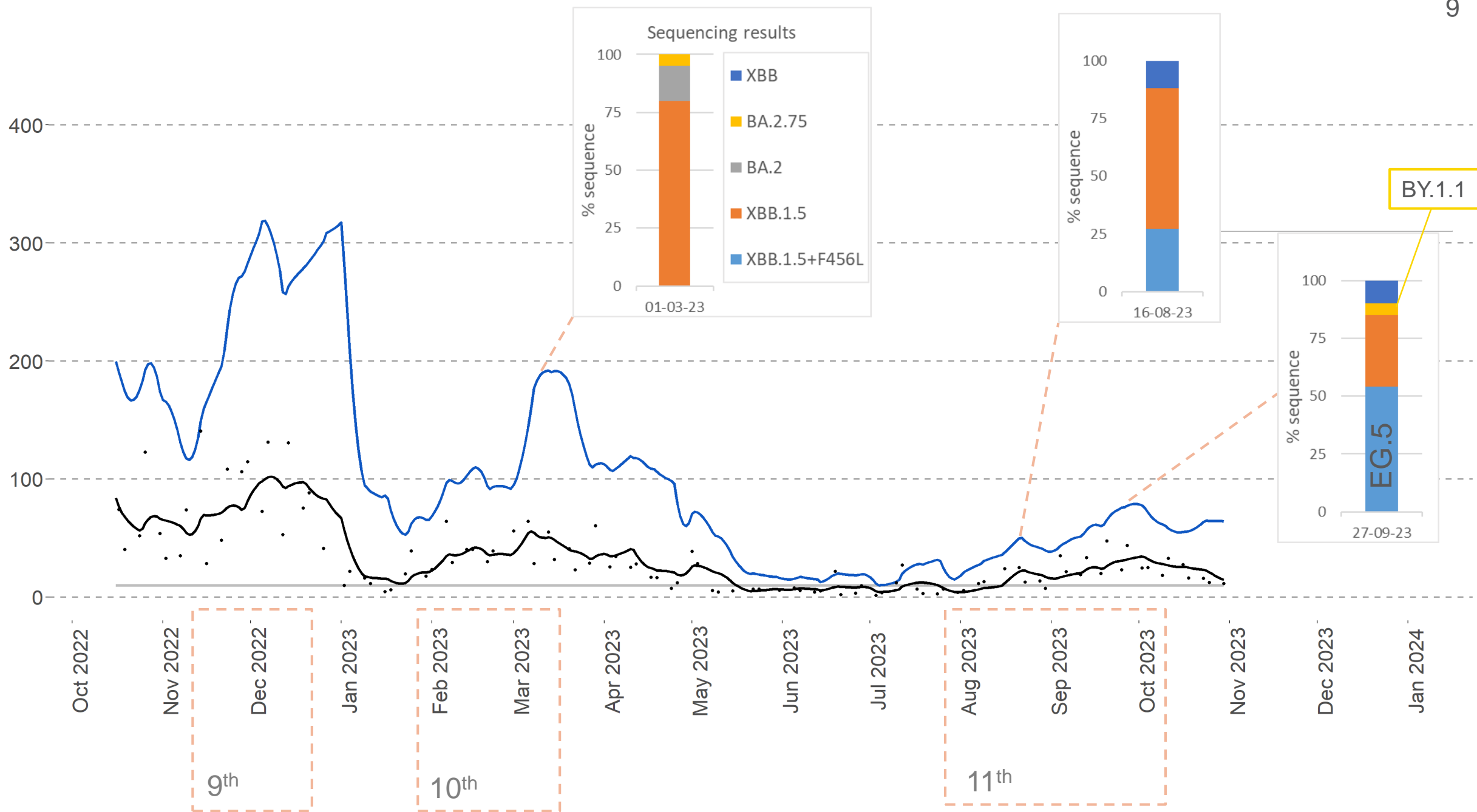


Fast Increase indicator



Increasing Trend indicator





ECDC recommendation

Surveillance systems of respiratory viruses

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Actions in Belgium

Wastewater-based surveillance

- SARS-CoV-2 since Sept. 2020
- 40% of population
- dPCR quantification
- Indicators developed
- Infrastructure in place with bio-banking
- Genomic surveillance in place (community)
- Communication strategy

Perspectives for 2024

- Extend to FLU, RSV
- Start ww-based polio surveillance

Contact

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