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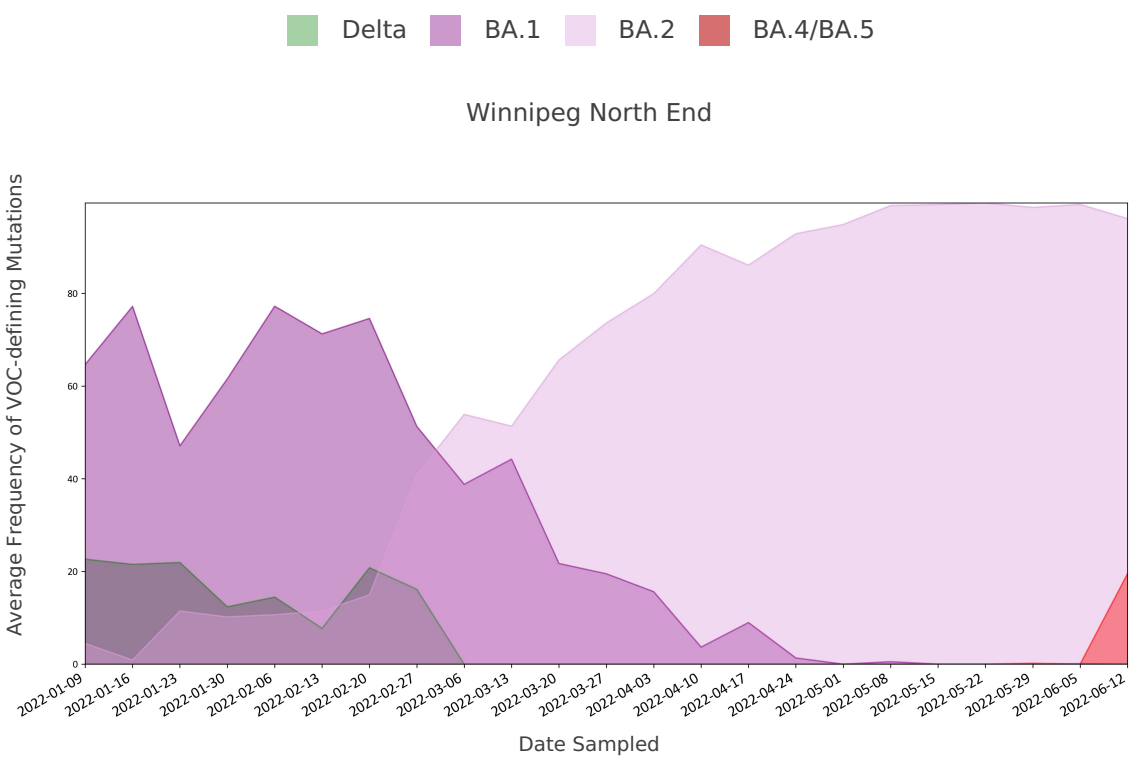
Wastewater Sequencing Trend Report: Detection of SARS-CoV-2 Variants of Concern by Metagenomic Sequencing

Public Health Agency of Canada | Agence de la santé publique du Canada

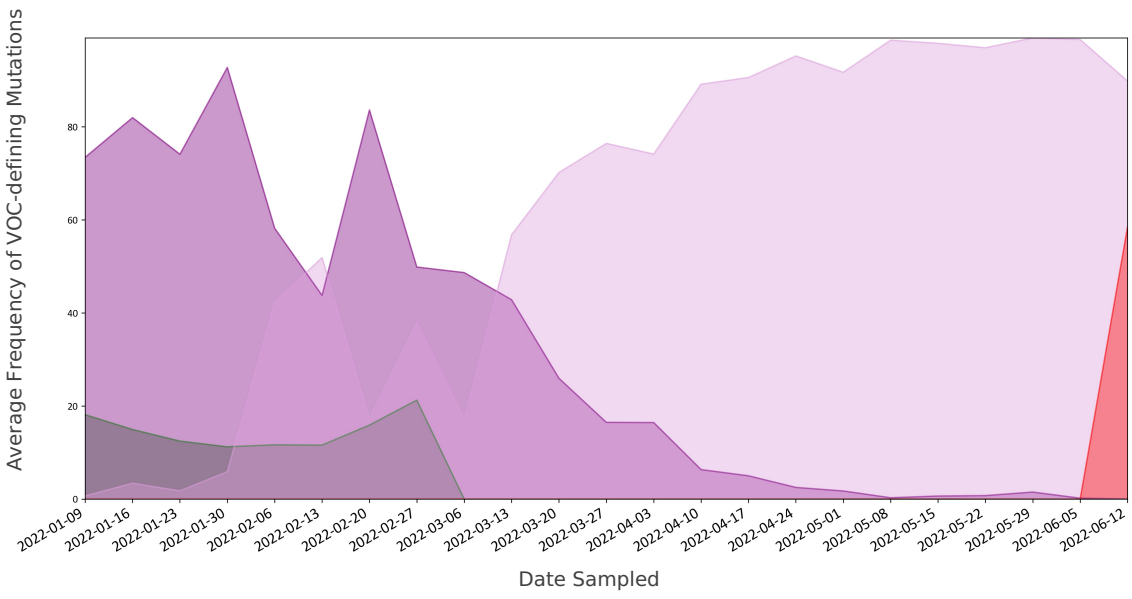
Longitudinal wastewater sequencing data ending 2022-06-12

The plots show the percentage of three SARS-CoV-2 variants of concern (Alpha, Delta and Omicron) detected in wastewater samples collected from different sites using metagenomic sequencing. SARS-CoV-2 viral fragments present in the wastewater are isolated and sequenced to obtain a genomic \"blueprint\" of the virus. Each variant of concern carries small differences in their genomic blueprint called mutations that can be queried using specialized software to identify the presence and abundance of Alpha, Delta and Omicron (BA.1, BA.2 and BA.4 or BA.5) present in the wastewater sample. The shaded areas in the plot show Delta in green, BA.1 in dark purple, BA.2 in light purple, BA.4 or BA.5 in red and where applicable, Alpha in blue.

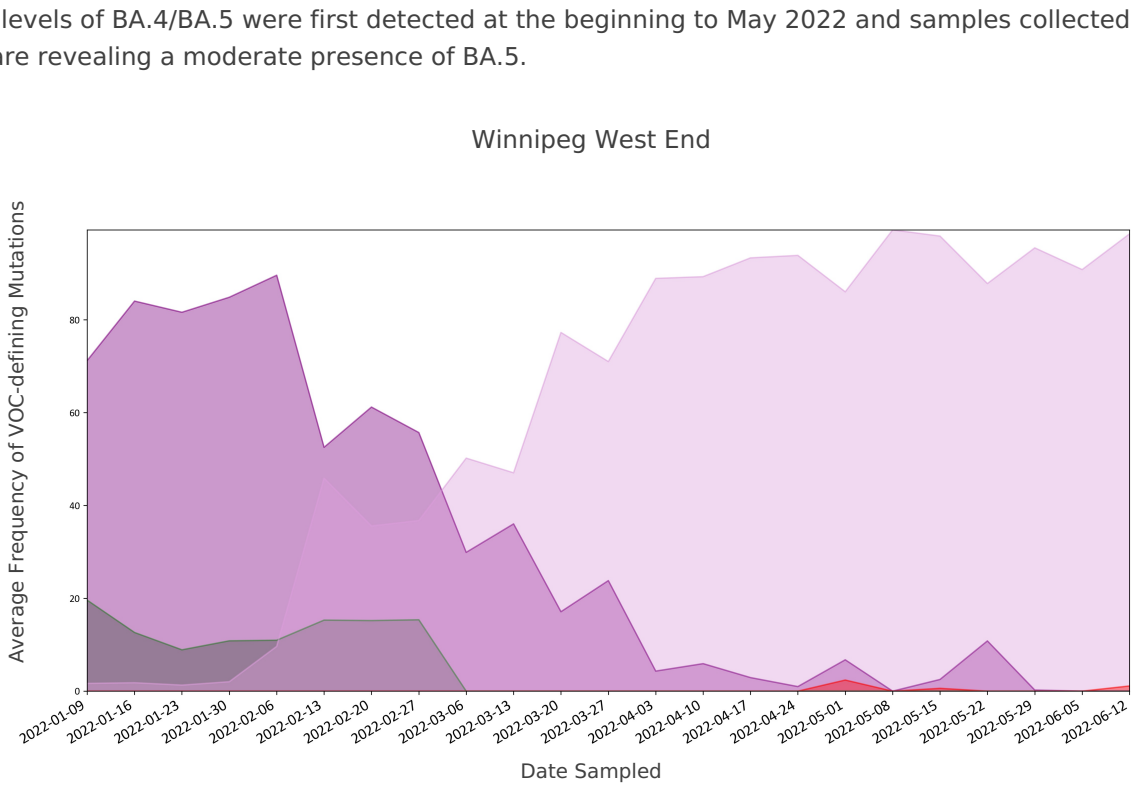
Winnipeg



The plot shows a moderate to high presence of BA.1 until late February when BA.2 levels begin to increase and overtake BA.1. BA.2 levels increased rapidly and have remained high in samples collected up to June 12, 2022. Trace to low levels of BA.4/BA.5 were first detected at the beginning to May 2022 and have been detected in samples collected up to June 12, 2022.



The plot shows a high presence of BA.1 until late February when BA.2 levels begin to increase and overtake BA.1. BA.2 levels increased rapidly and have remained high in samples collected up to June 12, 2022. Trace to low levels of BA.4/BA.5 were first detected at the beginning to May 2022 and samples collected in June 2022 are revealing a moderate presence of BA.5.



The plot shows a high presence of BA.1 until late February when BA.2 levels begin to increase and overtake BA.1. BA.2 levels increased rapidly and have remained high in samples collected up to June 12, 2022. Trace to low levels of BA.4/BA.5 were first detected at the beginning to May 2022 and have been detected in samples collected up to June 12, 2022.