# Wastewater Sequencing Trend Report: Detection of SARS-CoV-2 Variants of Concern by Metagenomic Sequencing
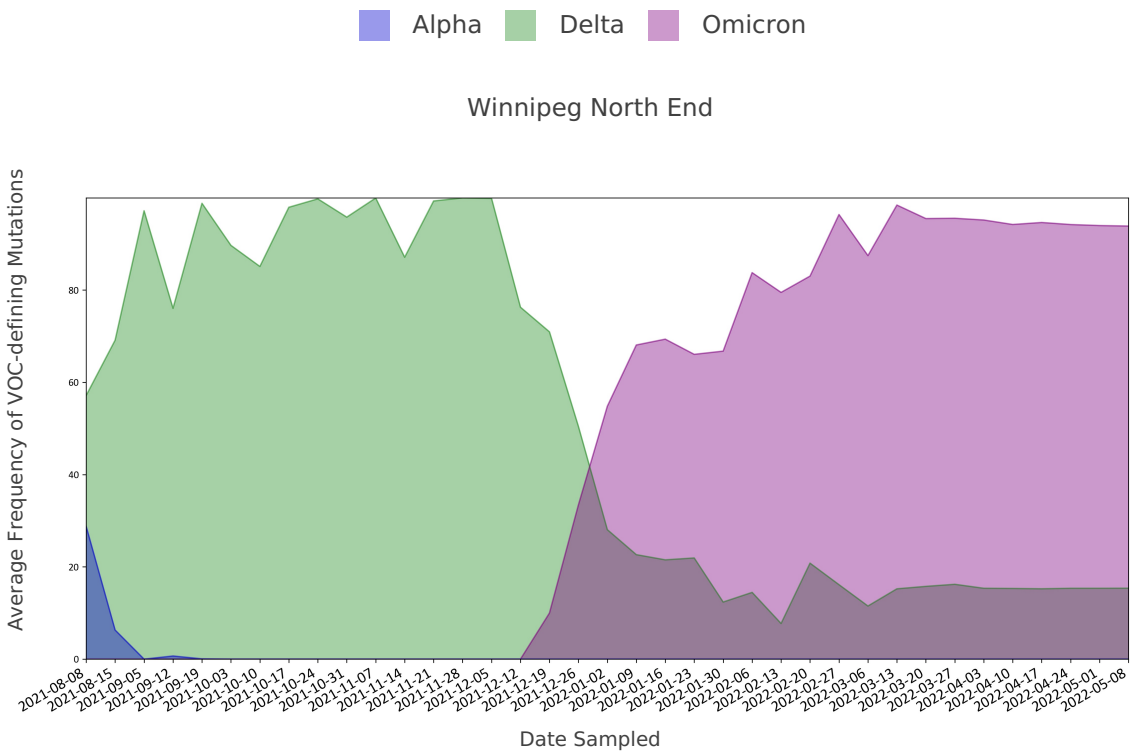
**Public Health Agency of Canada** — **Agence de la santé publique du Canada**
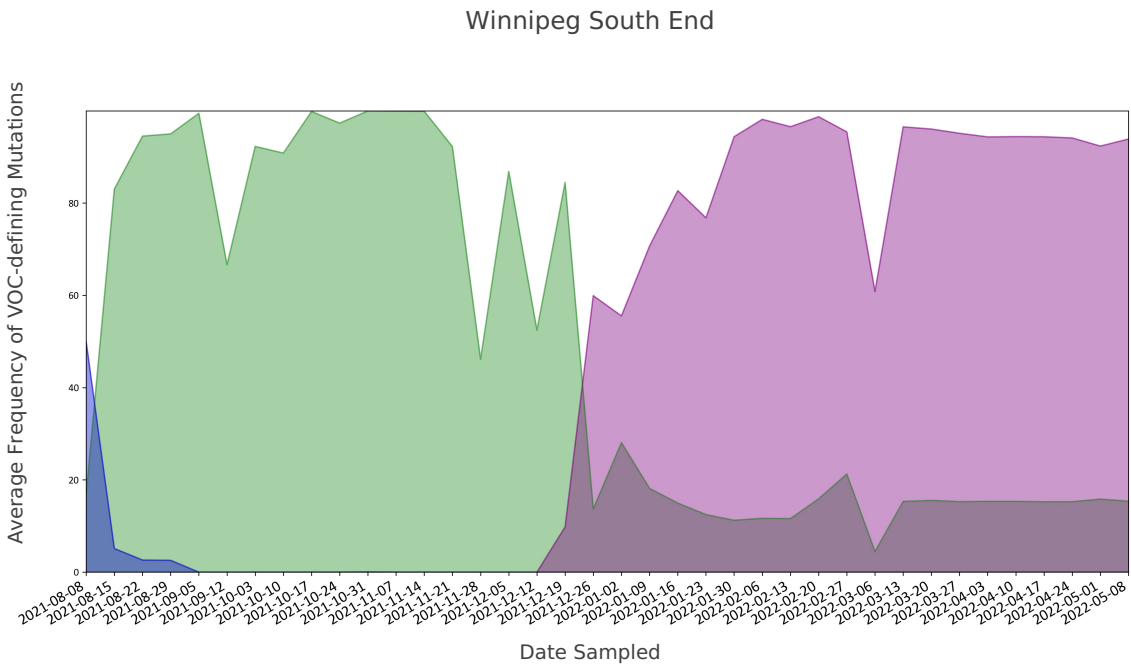
**Longitudinal wastewater sequencing data ending 2022-05-08**

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 present in the wastewater sample. The shaded areas in the plot show Delta in green, Omicron in purple and where applicable, Alpha in blue.
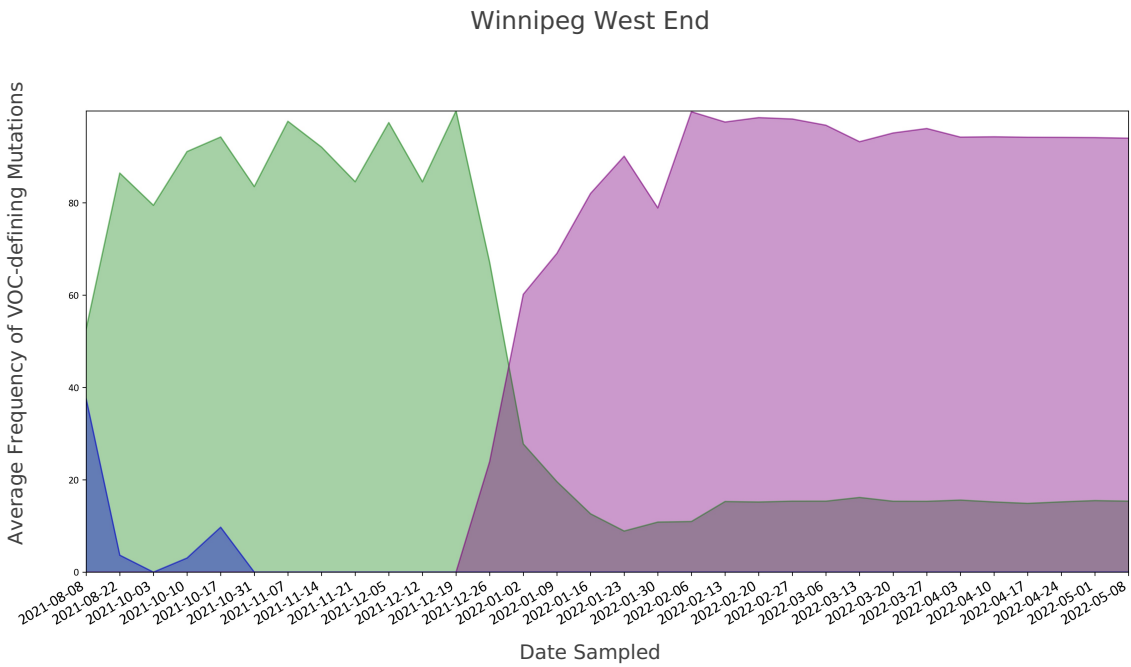
## Winnipeg



Winnipeg North End

The plot shows a high presence of Delta until mid-December, followed by a rapid decrease in presence. This decrease in Delta is accompanied by a sharp increase of Omicron that has been detected at a sustained high level in samples collected up to May 8, 2022. Omicron was first detected in wastewater samples collected from this site on December 14, 2021.



Winnipeg South End

The plot shows a high presence of Delta until mid-December, followed by a rapid decrease in presence. This decrease in Delta is accompanied by a sharp increase of Omicron that has been detected at a sustained high level in samples collected up to May 8, 2022. Omicron was first detected in wastewater samples collected from this site on December 14, 2021.



Winnipeg West End

The plot shows a high presence of Delta until mid-December, followed by a rapid decrease in presence. This decrease in Delta is accompanied by a sharp increase of Omicron that has been detected at a sustained high level in samples collected up to May 8, 2022. Omicron was first detected in wastewater samples collected from this site on December 14 2021.