KU LEUVEN

DEPARTMENT OF MICROBIOLOGY, IMMUNOLOGY AND TRANSPLANTATION

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Genomic surveillance report

Update for Belgium, 20/09/2022

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Content

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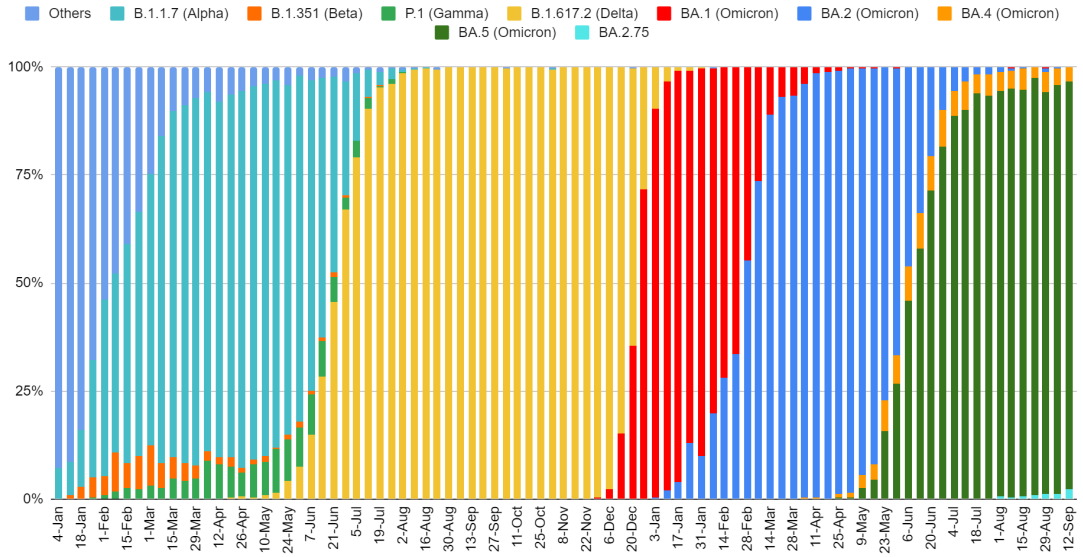
Previous reports are available online using this link.

Executive summary

Omicron BA.5 remains the dominant lineage in Belgium and accounts for around 94% of the most recent infections. The genomic situation is currently stable.



To date, BA.2.75 samples account for approximately 1% of the circulating strains.

1 Epidemiological context and indicators related to diagnostic activities

Omicron BA.2 and BA.2.75 can be distinguished from BA.4 and BA.5 as the latter variants present a deletion 69/70 in the Spike gene (S gene target failure, SGTF).

At this stage, SGTF samples (BA.5 and BA.4) still represent the vast majority of the most recent infections, but a slow decline in favor of non-SGTF samples (including BA.2.75) may have started since a couple of weeks (Figure 1). These recent changes must be interpreted with caution as there is currently a low number of samples analyzed by the federal PCR platform (figure 2). This signal will nevertheless be followed-up carefully in the coming weeks. Note that the numbers have been adapted compared to the previous weeks, as it has been noticed that some QC results had been included.

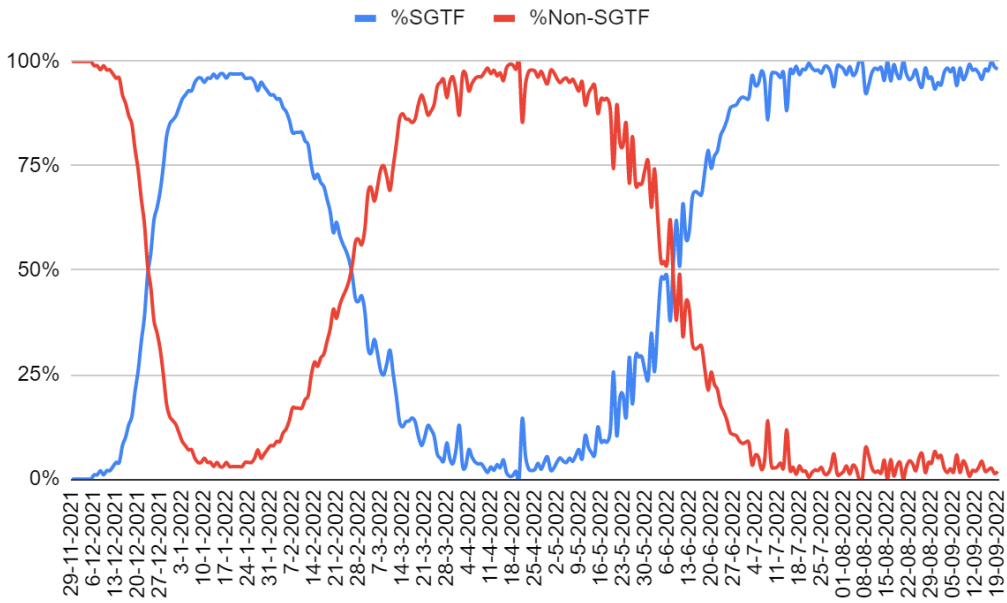


Figure 1: *S gene target failure (SGTF, in blue: BA.4 and BA.5) and others (red: currently considered predominantly BA.2 and BA.2.75) among positive samples reported by the federal platform laboratories.*

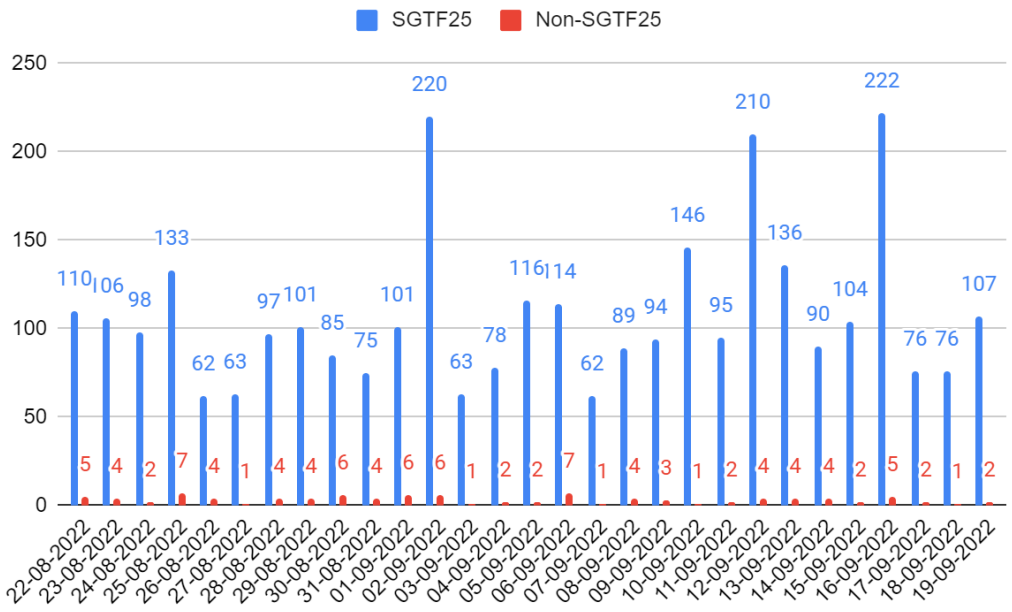


Figure 2: *S gene target failure (SGTF, in blue: BA.4 and BA.5) and others (red: currently considered predominantly BA.2 and BA.2.75) among positive samples reported by the federal platform laboratories.*

We have been informed that the government will stop the activity of the federal platform PCR laboratories in the coming weeks. This implies that in the future, figure 1 and figure 2 will not be updated and genomic surveillance in Belgium will solely rely on sequencing efforts.

2 Monitoring of Variants of Concern in Belgium

During the last two weeks of baseline surveillance - 05/09/2022 to 18/09/2022 - (533 sequences collected at this stage), BA.5 represented 94%, BA.4 represented 4% and BA.2.75 represented 1% of the samples sequenced. The BA.2.75 subvariant is currently classified as a variant of interest (VOI) by the ECDC, and seems to have a (modest) transmission advantage over BA.5.

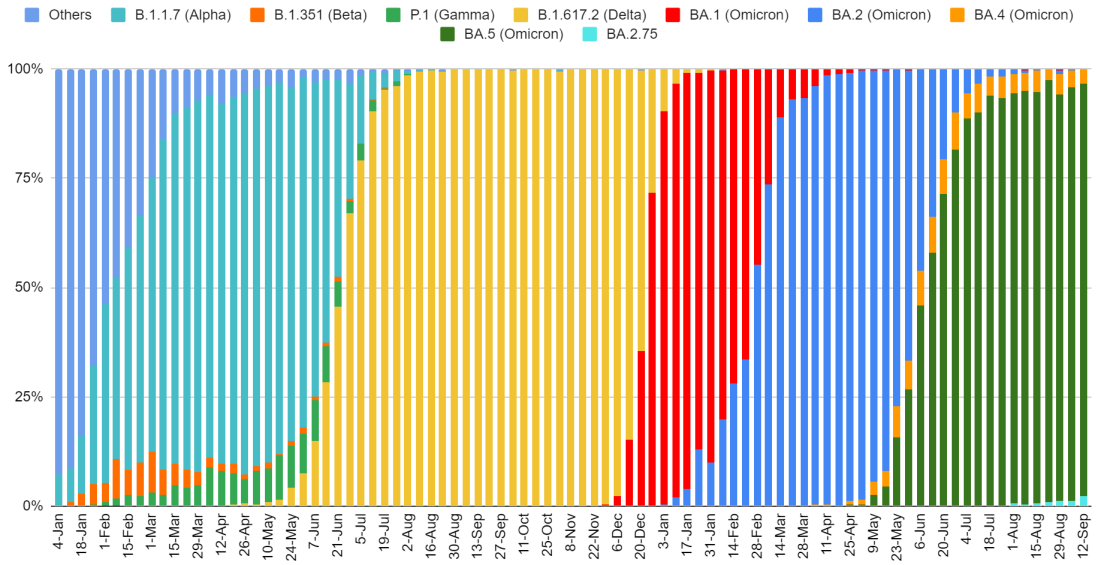


Figure 3: *Share of variants of concern per week in Belgium since January 2021.*