



Genomic surveillance report

Update for Belgium, 16/08/2022

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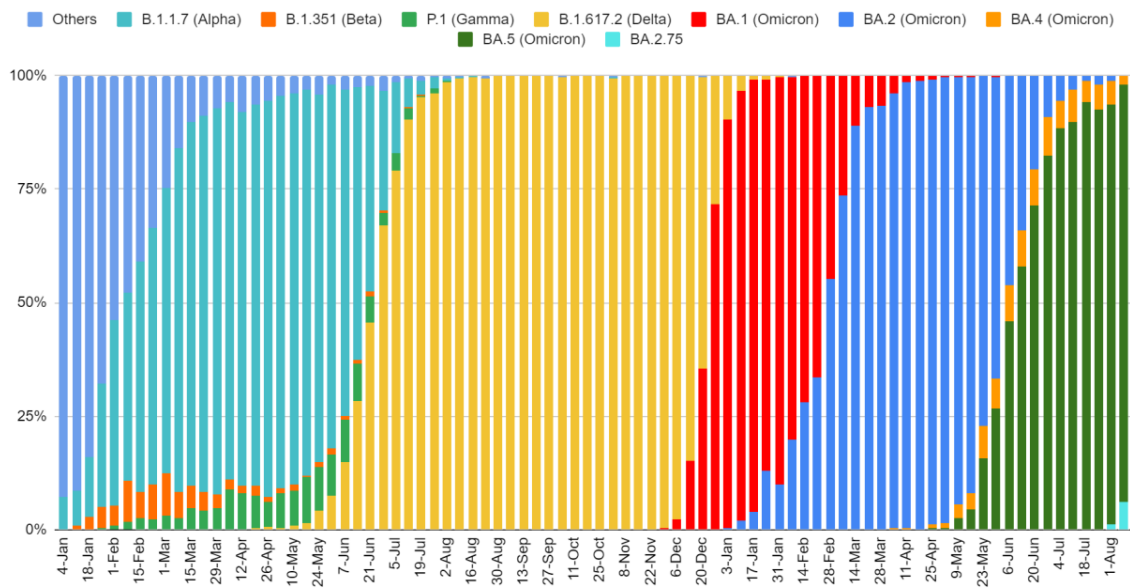
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Executive summary

Omicron BA.5 remains the dominant lineage in Belgium and accounts for around 90% of the most recent infections. The epidemic resurgence associated with the latest viral shift (BA.2 -> BA.5) has reached a peak, as highlighted by a decreasing number of infections ($R_t = 0.88$). Hospital admissions and ICU beds are also declining.



To this date, nine BA.2.75 samples have been detected through the national genomic surveillance program. BA.2.75 has now become the dominant variant in India and is being found in more and more countries around the world. Also in Belgium, it is likely that the percentage of BA.2.75 strains will continue to go up and that BA.2.75 and BA.5 will cocirculate over the coming weeks. If BA.2.75 will rapidly become dominant in countries that had a large BA.5 outbreak remains to be established.

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 using 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) represent 93-97% of the most recent samples analyzed (Figure 1).

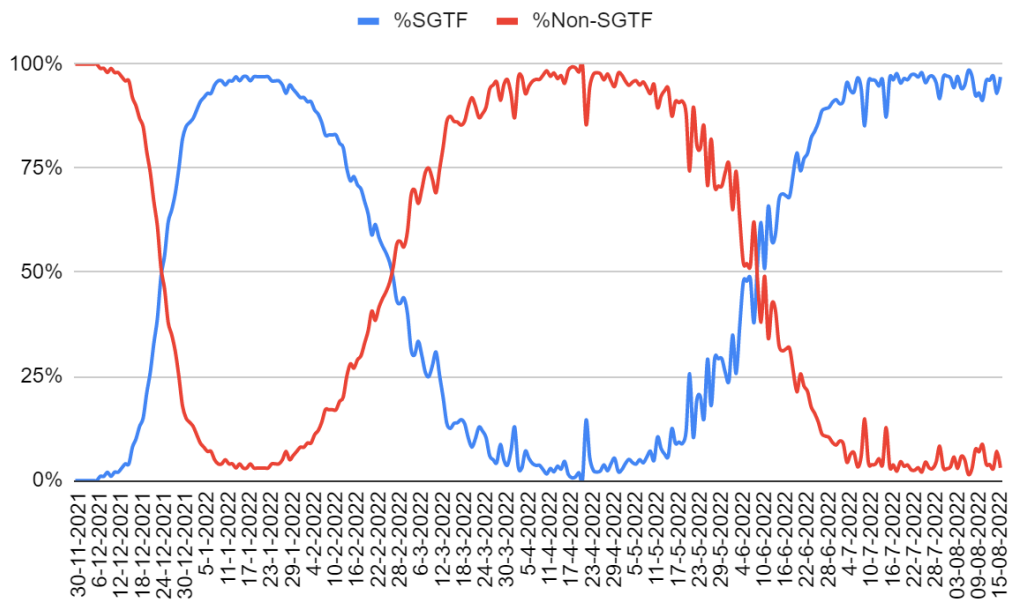


Figure 1: S gene target failure (SGTF, in blue: BA.4 and BA.5) and others (red: currently considered predominantly BA.2, but also possibly BA.2.75) among positive samples reported by the federal platform laboratories.

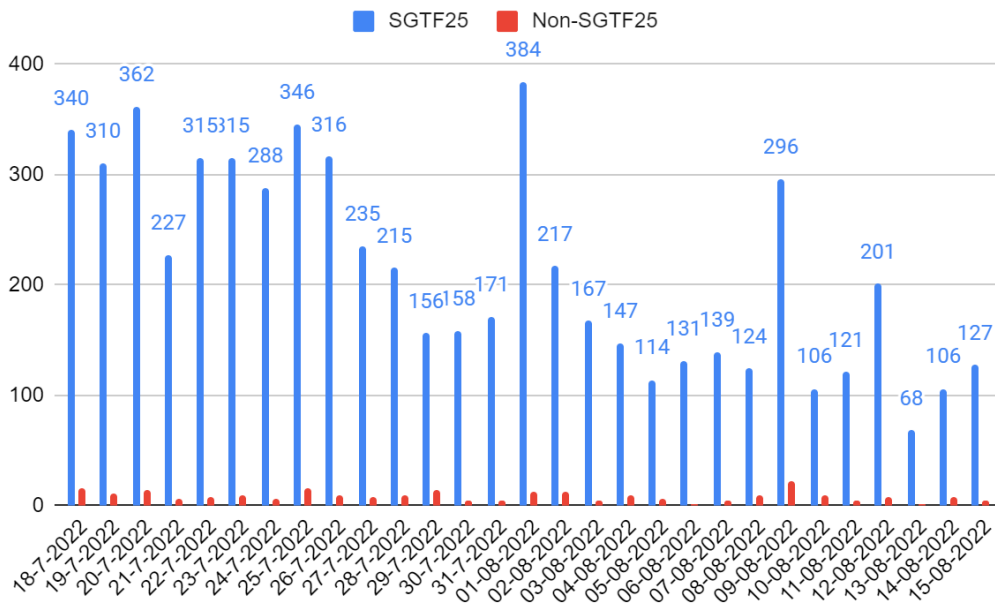


Figure 2: S gene target failure (SGTF, in blue: BA.4 and BA.5) and others (red: currently considered predominantly BA.2, but also possibly BA.2.75) among positive samples reported by the federal platform laboratories.

2 Monitoring of Variants of Concern in Belgium

During the last two weeks of baseline surveillance - 01/08/2022 to 14/08/2022 - (491 sequences collected at this stage), BA.5 represented 92%, BA.4 represented 5%, BA.2 represented 1% and BA.2.75 represented 2%. Nine BA.2.75 samples have been identified at this stage. The first BA.2.75-positive patient in this surveillance was sampled in Belgium on 31/7/2022.

BA.2.75-positive samples have also been isolated in 28 other countries. In India, BA.2.75 now accounts for more than 50% of the genotyped strains, but with limited impact on hospitalisations.

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. It is likely that the percentage of BA.2.75 strains will continue to go up in Belgium and that BA.2.75 and BA.5 will cocirculate over the coming weeks. If BA.2.75 will rapidly become dominant in countries that had a large BA.5 outbreak remains to be established.

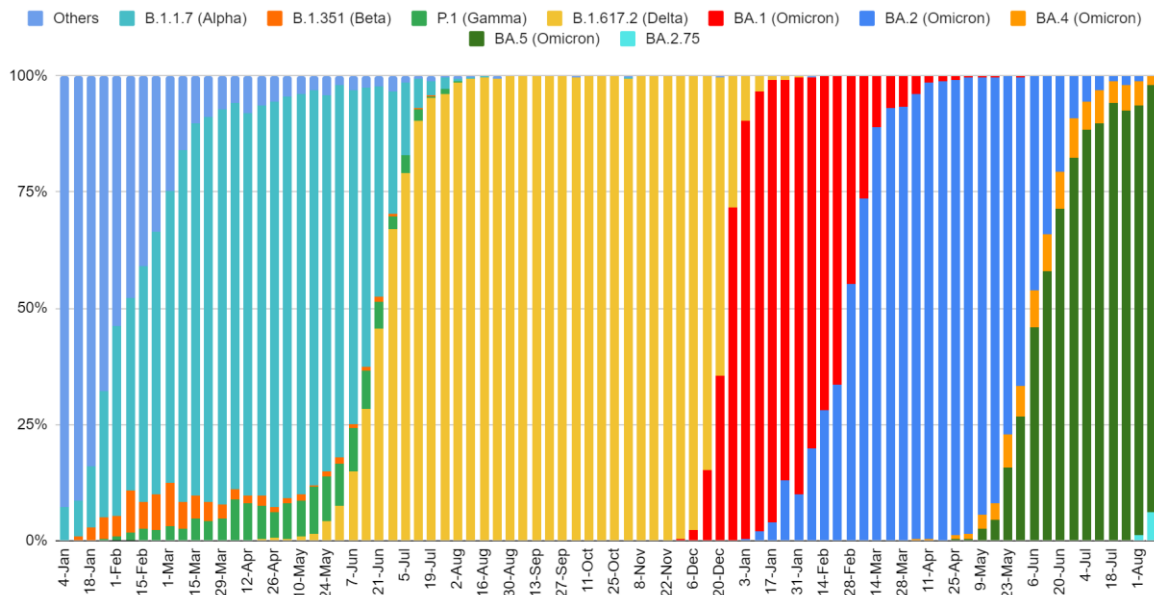


Figure 3: Share of variants of concern per week in Belgium since January 2021.