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Genomic surveillance report

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Content

Executive summary	3
Epidemiological context and indicators related to diagnostic activities	4
Monitoring of Variants of Concern in Belgium	6
Implementation of a genomic surveillance program for antiviral resistance	7

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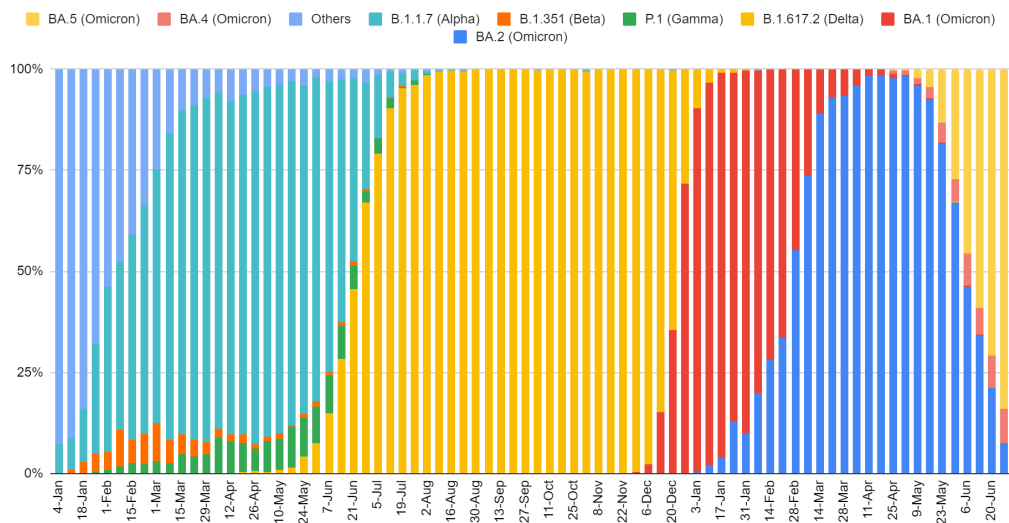
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Executive summary

Omicron BA.5 is now the dominant lineage in Belgium and now accounts for around 90% of the most recent infections. This recent shift is associated with an increase in the number of infections (Rt 1.1), high testing positivity rate (30%) despite an increased testing intensity and an increase in the number of hospital admissions.



International genomic surveillance highlighted the emergence of a new variant (BA.2.75) which seems to harbor the potential to outpace BA.5. These early observations mainly arise from India, but also from other continents including Europe. This emerging variant will be closely followed-up during the next weeks.

1 Epidemiological context and indicators related to diagnostic activities

Omicron BA.2 can be distinguished from BA.4 and BA.5 using some specific diagnostic PCR kits as the latter variants present the deletion 69/70 in the S gene and therefore are characterized by an SGTF.

In the current epidemiological context, samples without SGTF are most likely to be BA.2 infections (including BA.2.12.1). These samples currently represent 4-9% of positive tests in the country (declining share week by week). SGTF samples are presumed to be predominantly Omicron BA.5 and, to a lesser extent, BA.4. These samples represent 91-96% of the most recent samples analyzed (Figure 1).

Although the current testing policies do not allow precise estimations, the current doubling time of BA.5/BA.4 positive samples observed at the level of federal platform laboratories is between 7 and 10 days.

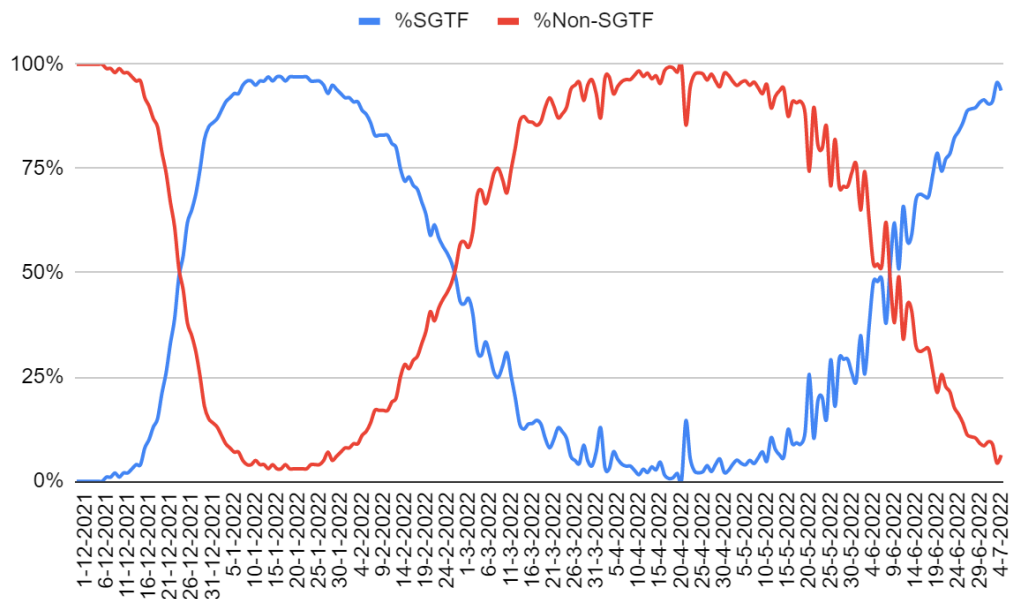


Figure 1: S gene target failure (SGTF, in blue: BA.1 & BA.1.1, BA.4 and BA.5, and potentially BA.2 with 69/70 deletion) and others (red: currently considered predominantly BA.2) among positive samples reported by the federal platform laboratories.

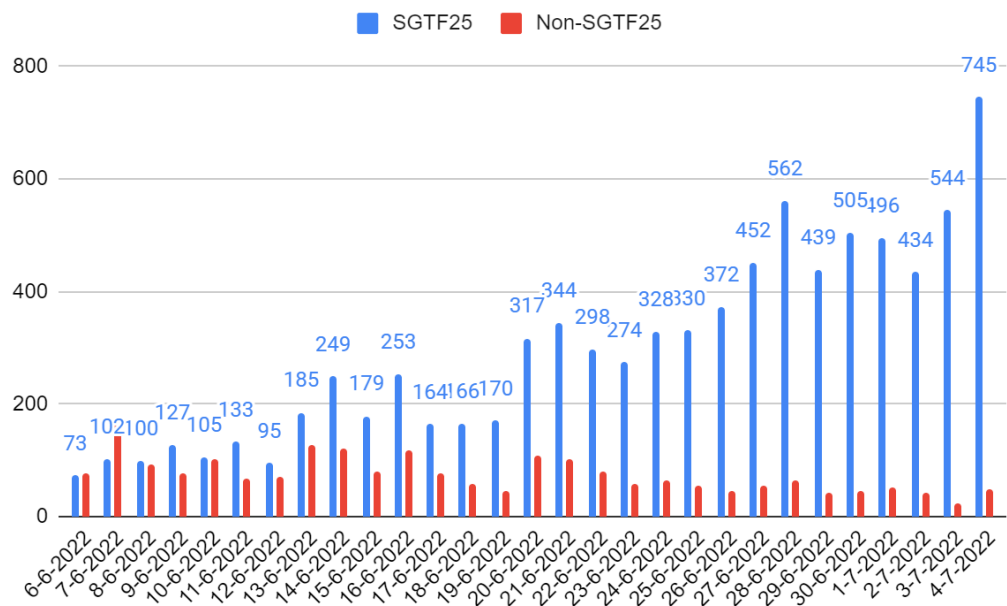


Figure 2: S gene target failure (SGTF, in blue: BA.4 and BA.5, and potentially BA.2 with 69/70 deletion) and others (red: currently considered predominantly BA.2) among positive samples reported by the federal platform laboratories.

2 Monitoring of Variants of Concern in Belgium

During the last two weeks of baseline surveillance - 20/06/2022 to 03/07/2022 - (1006 sequences collected at this stage), BA.5 represented 74% (increasing trend), BA.2 represented 18% (decreasing trend) and BA.4 represented 8% (stable trend).

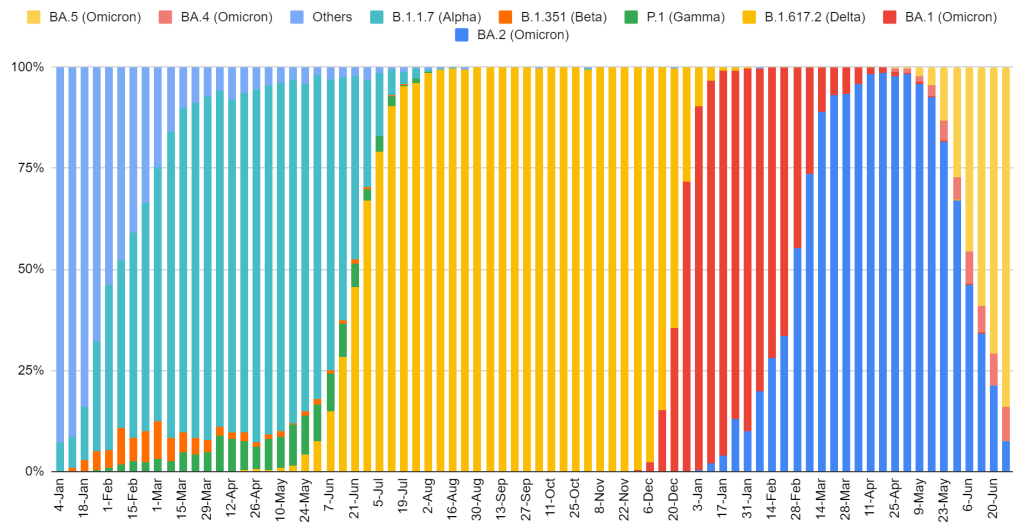


Figure 3: Share of variants of concern per week in Belgium