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Genomic surveillance report

Update for Belgium, 19/07/2022

DEPARTMENT OF MI

Content

Executive summary	3
Epidemiological context and indicators related to diagnostic activities	4
Monitoring of Variants of Concern in Belgium	6

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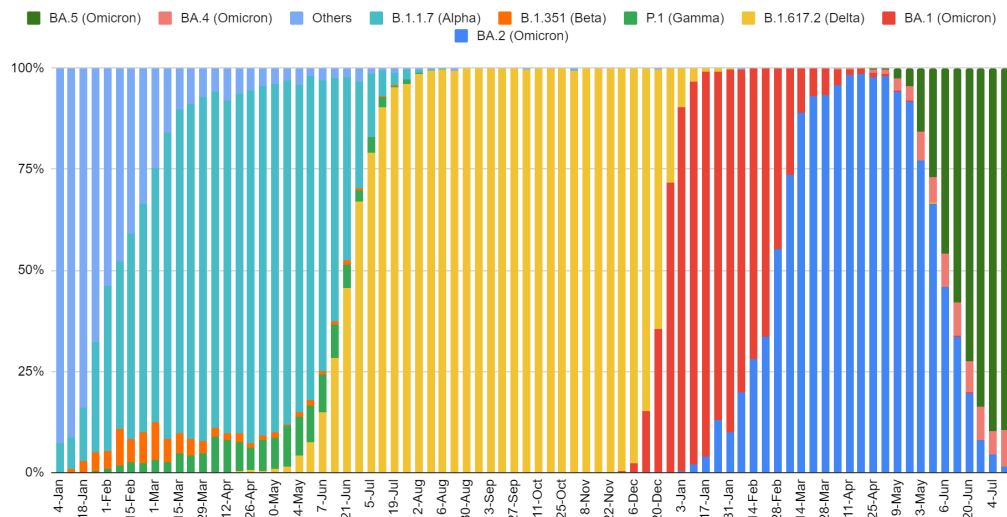
Belgian Sequencing Consortium:

Cliniques Universitaires Saint-Luc, Centre Hospitalier CHU UCL Namur, ULB, UMONS, UNAMUR, ULiège, UGent, UZA/UAntwerpen, JESSA ZH, AZ Delta, AZ Klinica, IPG, AZ St Lucas Gent, OLVZ Aalst, Briant network, ZNA, AZ St Jan Brugge, UZ Brussel, LHUB-ULB, UZ Leuven/KU Leuven and Sciensano HealthData.

Previous reports are available online using this [link](#).

Executive summary

Omicron BA.5 is now the dominant lineage in Belgium and accounts for around 90% of the most recent infections. This recent shift is associated with an increase in the number of infections ($R_t \sim 1.05$), increasing positivity rate (37%) despite an increased testing intensity, and an increase in the number of hospital admissions, including ICU admissions.



In the meantime, international genomic surveillance highlighted the emergence of a new variant (BA.2.75) which seems to harbor the potential to outpace BA.5. For now, no BA.2.75 samples have been identified in Belgium through our genomic surveillance program.

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 ~~some~~-specific diagnostic PCR kits as the latter variants present the deletion 69/70 in the S gene and therefore are characterized by an SGFT.

At this stage, SGTF samples are predominantly Omicron BA.5 and, to a lesser extent, BA.4. These samples represent 96-98% of the most recent samples analyzed (Figure 1).

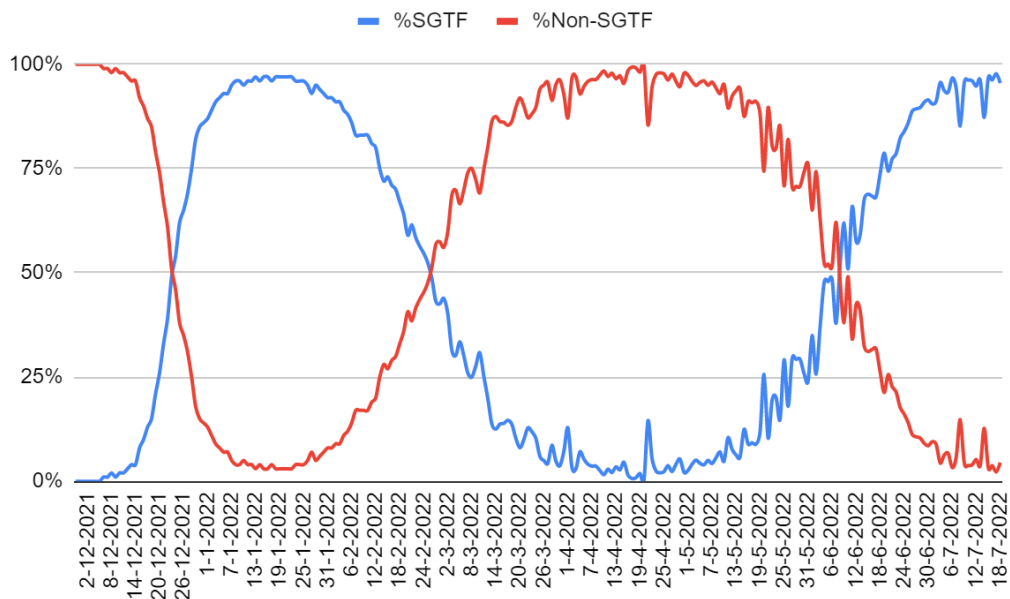


Figure 1: S gene target failure (SGTF, in blue: BA.4 and BA.5) and others (red: currently considered predominantly BA.2, but also possibly BA.2.75) among positive samples reported by the federal platform laboratories.

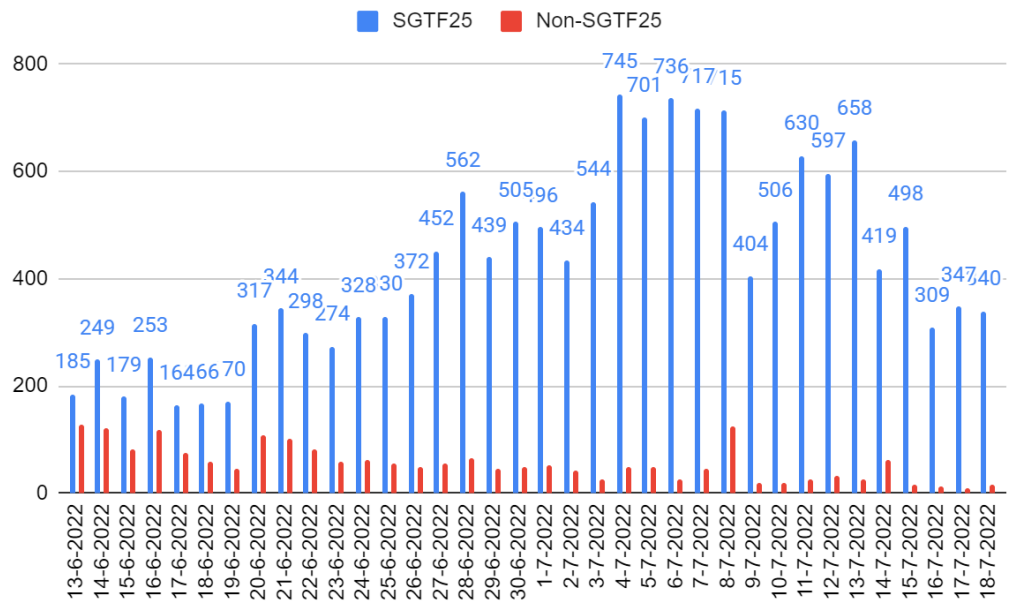


Figure 2: S gene target failure (SGTF, in blue: BA.4 and BA.5) and others (red: currently considered predominantly BA.2, but also possibly BA.2.75) among positive samples reported by the federal platform laboratories.

2 Monitoring of Variants of Concern in Belgium

During the last two weeks of baseline surveillance - 04/07/2022 to 17/07/2022 - (1184 sequences collected at this stage), BA.5 represented 89%, BA.4 represented 6% and BA.2 represented 4%. No BA.2.75 have been identified at this stage. In the meantime, we keep monitoring the situation abroad and state of knowledge regarding the emergence and spread of BA.2.75 (currently classified as a variant of interest by the ECDC).

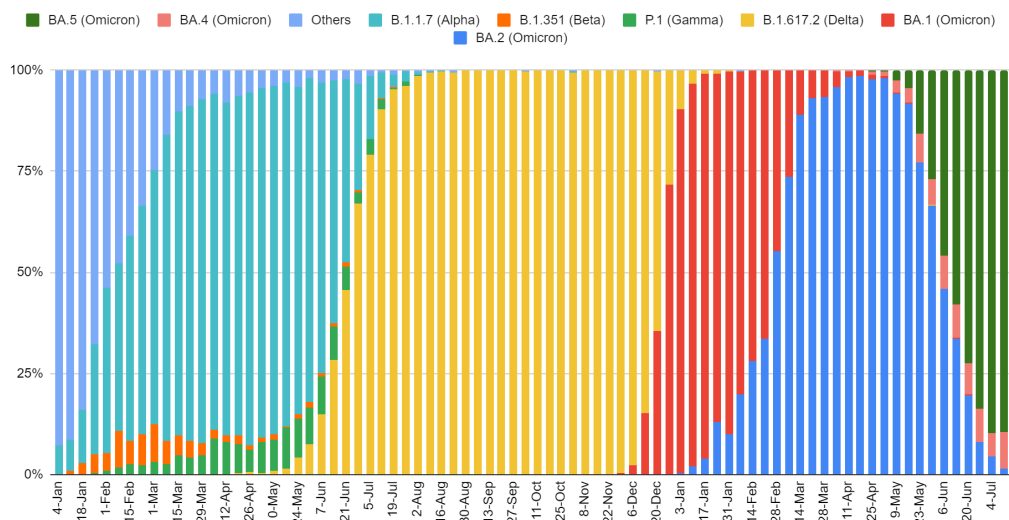


Figure 3: Share of variants of concern per week in Belgium