

Genetic diversity of the novel coronavirus SARS-CoV-2 (COVID-19) in Portugal

More information at <https://insaflu.insa.pt/covid19>



Situation Report

September 10th, 2024

The National Institute of Health Doutor Ricardo Jorge, I.P. (INSA) has analysed **50286** SARS-CoV-2 genome sequences so far.

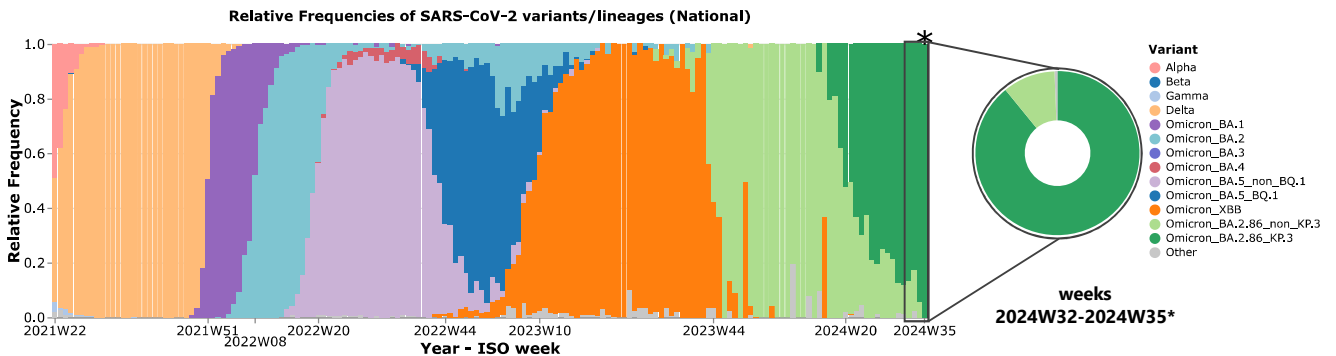


Figure 1: Evolution of the weekly relative frequency of the SARS-CoV-2 variants circulating in Portugal between ISO weeks 22/2021 (31/05/21 - 06/06/21) and 35/2024 (26/08/24 - 01/09/24), with emphasis on the latest weeks. *The presented relative frequencies refer to the period of ISO weeks 32/2024 to 35/2024. This and other graphs can be explored interactively on the website.

Main highlights

- The **XBB lineage** (and its descendants) **was dominant in Portugal, from week 10 of 2023 up to week 43** (Figure 1), presenting a decreasing trend since then. We have not detected any sequences from this lineage since week 21/2024.
- The **BA.2 lineage** was dominant in Portugal in the first months of 2022, having maintained a discreet circulation since then, until the emergence of its **sub-lineage BA.2.86**. This sub-lineage **is dominant in Portugal since week 44 of 2023**, with a **relative frequency of 99%** in the latest sampling between weeks 28/2024 and 31/2024 (Figure 1). Its sub-lineage **KP.3** and descendants are predominantly circulating in Portugal (Figure 2). Within the latter, we highlight the **considerable increase in circulation of sub-lineage KP.3.1.1**, which accounted for **76.2%** of the sequences analyzed between weeks 32/2024 and 35/2024. The sub-lineage **KP.3**, as well as other sub-lineages in circulation (e.g., KP.1 and KP.2), belongs to the list of variants under monitoring by ECDC (<https://www.ecdc.europa.eu/en/covid-19/variants-concern>) (Figure 2).
- Most of the lineages detected in this latest sampling exhibit a similar mutational profile in the Spike protein ("BA.2.86-like"), which is considerably divergent from the former dominant main lineage (XBB). This profile endows them a higher potential for immune system evasion and, potentially, increased transmissibility.

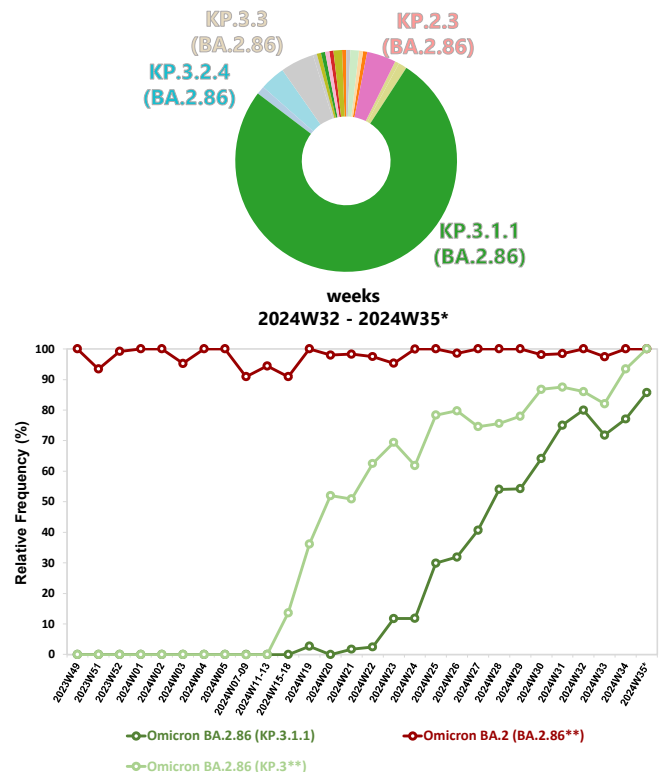


Figure 2: Evolution of the relative frequency of some sub-lineages of interest circulating in Portugal. The circular graph shows the distribution of the relative frequencies of SARS-CoV-2 sub-lineages in the period of ISO weeks 32/2024 and 35/2024 (05/08/24 - 01/09/24) highlighting the most frequent sub-lineages of the sequences analysed in this period. The evolution of BA.2.86, KP.3 and KP.3.1.1 relative frequencies during the last weeks is shown in the line plot. *The presented relative frequencies correspond to the sub-lineages and their descendants. Other graphs can be explored interactively on the website.

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Useful links

<https://www.ecdc.europa.eu/en/covid-19/situation-updates/variants-dashboard>
<https://www.who.int/activities/tracking-SARS-CoV-2-variants>
<https://cov-lineages.org/lineage-list.html>
<https://outbreak.info/>
<https://www.gisaid.org/>