

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

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



Situation Report

April 2nd, 2025

The National Institute of Health Doutor Ricardo Jorge, I.P. (INSA) has analysed **50618** SARS-CoV-2 genome sequences so far.

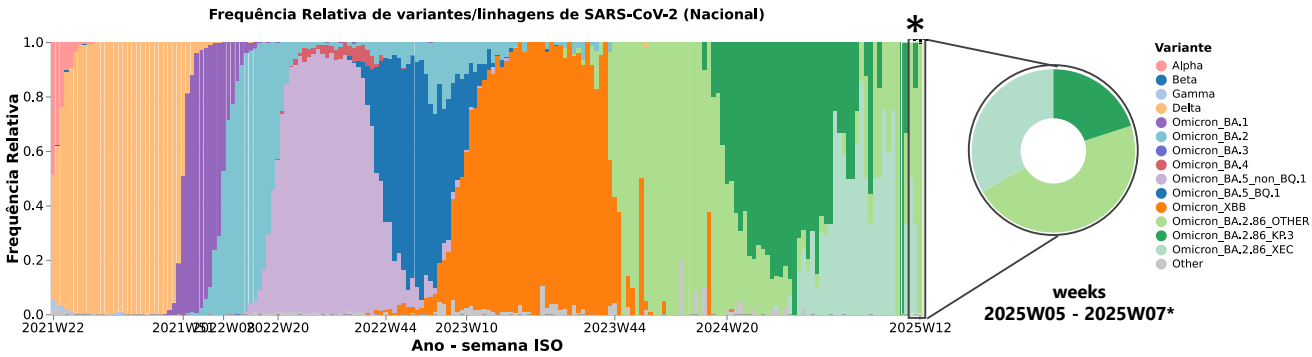


Figure 1: Evolution of the weekly relative frequency of the SARS-CoV-2 variants circulating in Portugal between ISO weeks 22/2021 (31/05/21 - 06/06/21) and 12/2025 (17/03/25 - 23/03/25), with emphasis on the latest weeks. *The presented relative frequencies refer to the period of ISO weeks 08/2025 to 12/2025. *This and other graphs can be explored interactively on the website.*

Main highlights

- The **lineage BA.2.86** of the *Omicron* variant has been **dominant in Portugal since week 44 of 2023**, following its first detection in week 33/2023. Among its lineages, **KP.3** stands out, as it included in the list of variants of interest by the ECDC (<https://www.ecdc.europa.eu/en/covid-19/variants-concern>). The **relative frequency of KP.3 (and its sub-lineages)** has been showing a **declining trend** in Portugal, with **three sequences** being found between weeks **08/2025** and **12/2025** (**Figure 1**).
- The **recombinant XEC lineage** of the *Omicron* variant, which resulted from the recombination between two BA.2.86 sublineages (KS.1.1 and KP.3.3), is included in the **ECDC's variants under monitoring (VUM)** list. Therefore, it is presented here independently from its ancestral lineage for better monitoring and interpretation of this report. **XEC** was first detected in Portugal in week 31/2024 (**Figure 2**), and in the latest sampling (weeks **08/2025** to **12/2025**), it accounted for **33%** of the sequences analyzed.
- Additionally, we identified **five sequences from lineage LP.8.1**, also recently classified as VUM by ECDC.

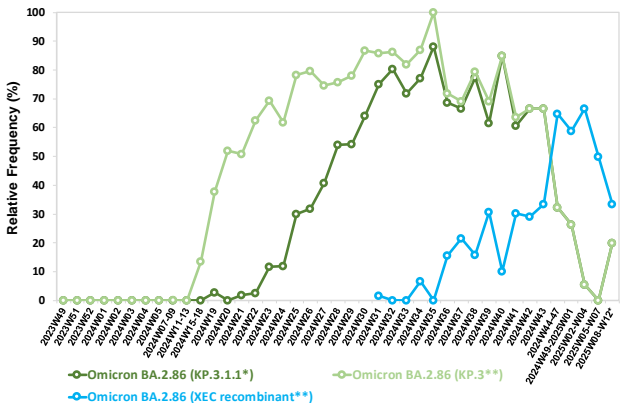
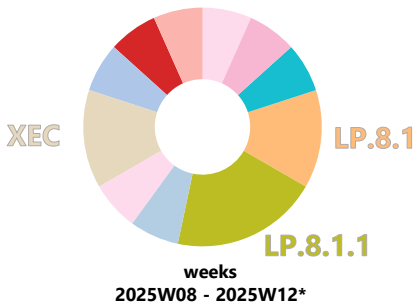


Figure 2: Evolution of the relative frequency of some sub-lineages of interest circulating in Portugal. The circular graph shows the distribution of the relative frequencies of SARS-CoV-2 sub-lineages in the period of ISO weeks 08/2025 and 12/2025 (17/02/25 - 23/03/25) highlighting the most frequent sub-lineages in this period. The evolution of relative frequencies of KP.3 and KP.3.1.1 lineages and the recombinant lineage XEC 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.*