

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

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



Situation Report

September 27th, 2022

The National Institute of Health Doutor Ricardo Jorge, I.P. (INSA) has analysed **41994** SARS-CoV-2 genome sequences so far.

Relative Frequencies of SARS-CoV-2 variants/lineages (National)

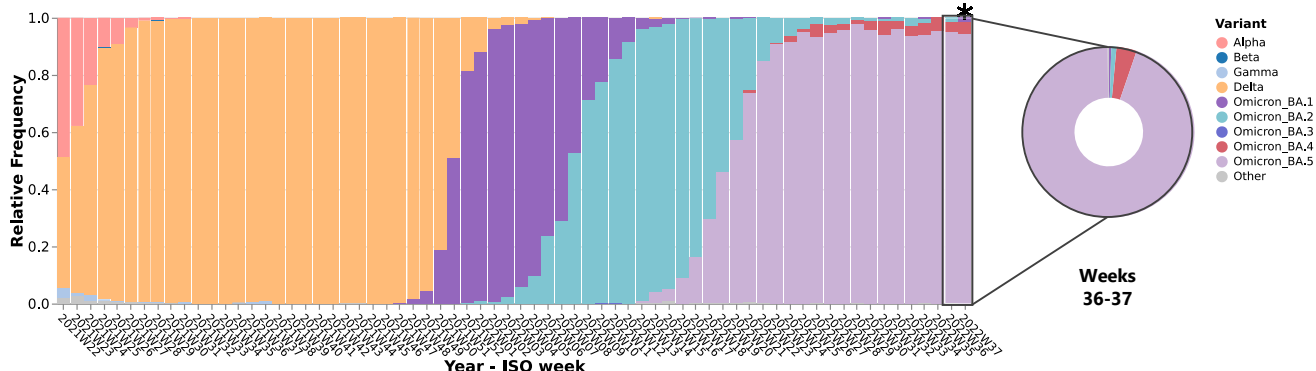


Figure 1: Evolution of the weekly relative frequency of the SARS-CoV-2 variants circulating in Portugal between ISO weeks 22 (31/05/21 - 06/06/21) and 37 (12/09/22 - 18/09/22). The frequencies presented for the last week under analysis (ISO week 37*) might change in the next report, given that some data from that period is still being processed. *This and other graphs can be explored interactively on the website.*

Main highlights

- Lineage BA.5 of the variant Omicron (including its multiple sub-lineages) is dominant in Portugal since week 19 (09/05/22 - 15/05/22) and presents a relative frequency of 94.2% according to the most recent national sequencing survey on week 37 (12/09/22 - 18/09/22).
- Lineage BA.4 of the variant Omicron has revealed a stable relative frequency in the latest sequencing surveys, representing 3.8% of the sequences analysed in weeks 36 and 37.
- Lineage BA.2 of the variant Omicron was dominant in Portugal between weeks 8 (21/02/22 - 27/02/22) and 19 (09/05/22 - 15/05/22). Since then, its relative frequency decreased continuously, representing ~1% of the sequences in weeks 36 and 37.
- On behalf of the continuous monitoring of the introduction and circulation of (new) SARS-CoV-2 (sub-)lineages in Portugal, we have been observing the emergence of some mutations of interest, namely mutations potentially associated with resistance to neutralizing antibodies. Among these, we highlight an additional mutation in position 346 of Spike protein, which has already been detected in several sub-lineages of BA.2 (e.g., BA.2.75.2), BA.4 (e.g., BA.4.6) and BA.5 (e.g., BF.7), some of them showing considerable circulation in some countries. In Portugal, we highlight the circulation of BF.7 and BA.4.6 sub-lineages, both with an increasing trend in its relative frequency, with values of ~4% and ~3%, respectively, in the period of weeks 36 and 37.

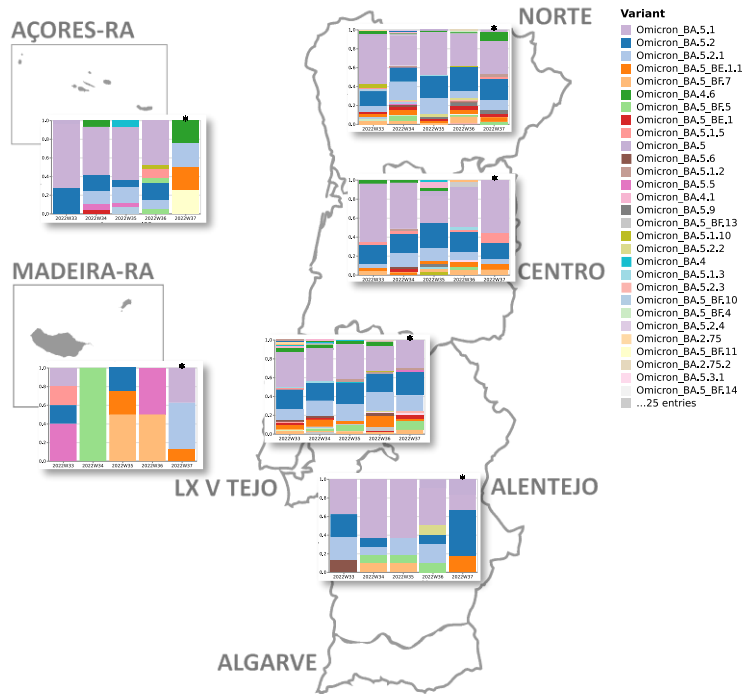


Figure 2: Evolution of the weekly relative frequency of SARS-CoV-2 lineages in each Health Region, between ISO weeks 33 (15/08/22 - 21/08/22) and 37 (12/09/22 - 18/09/22). Regional relative frequencies must be interpreted with caution due to the low number of samples in some of the regions. It is expected that the frequencies presented for the last week under analysis (ISO week 37*) might change in the next report, given that some data from that period is still being processed. *These and other graphs can be explored interactively on the website.*

Autorship

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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/>