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

More information at **https://insaflu.insa.pt/covid19**

Situation Report

August 16th, 2022

The National Institute of Health Doutor Ricardo Jorge, I.P. (INSA) has analysed **40420** SARS-CoV-2 genome sequences so far.

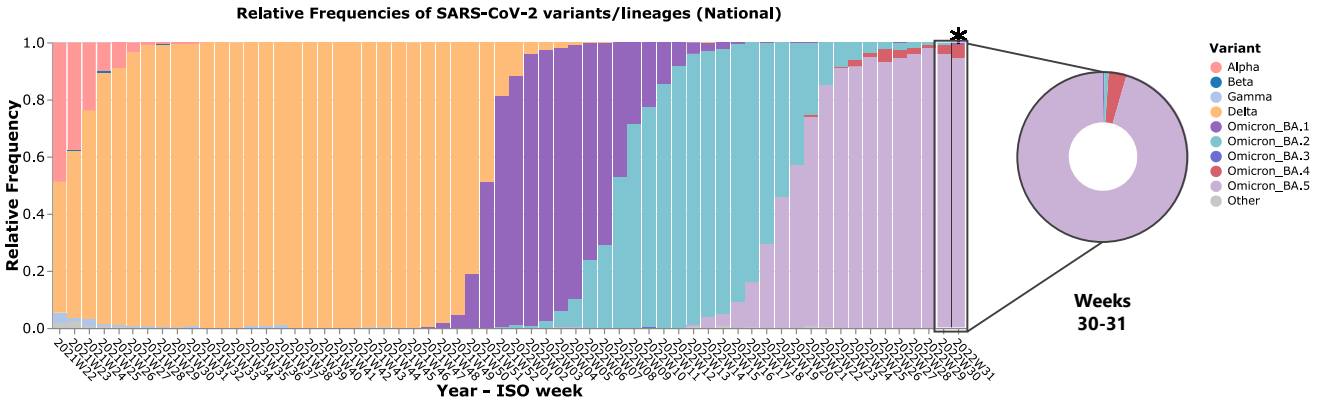

Figure 1: **Evolution of the weekly relative frequency of the SARS-CoV-2 variants circulating in Portugal between ISO weeks 22 (31/05/21 - 06/06/21) and 31 (01/08/22 - 07/08/22).** The frequencies presented for the last week under analysis (ISO week 31*) might change in the next report, given that some 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 mutiple sub-lineages) **is dominant in Portugal** since week 19 (09/05/22 - 15/05/22) and presents a **relative frequency of 94,5%** according to the most recent national sequencing survey on week 31 (01/08/22 - 07/08/22).

- **Lineage BA.4 of the variant Omicron** has revealed a **stable relative frequency** in the latest sequencing surveys, **representing 3.4%** of the sequences analysed in weeks 30 and 31.

- **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 has been continuously decreasing, representing **0.8% of the sequences in weeks 30 and 31**. We have been monitoring the circulation of BA.2 sublineages with an additional mutation in position L452 of Spike protein (associated with resistance to neutralizing antibodies). Among those, it is highlighted the circulation of **BA.2.12.1**, although its **relative frequency has not exceeded 2% so far**. Of note, no sequences of the sub-lineage of interest BA.2.75 have been detected so far in Portugal.

- It is estimated that the circulation of **lineage BA.1 of the variant Omicron** (dominant between weeks 51/2021 and 7/2022) is **currently residual.**

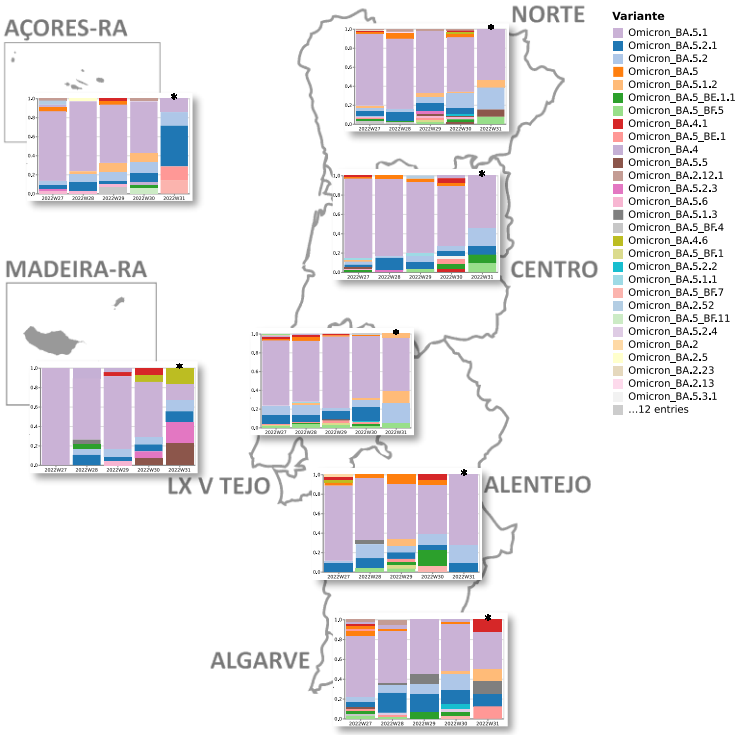

Figure 2: **Evolution of the weekly relative frequency of SARS-CoV-2 lineages in each Health Region, between ISO weeks 27 (04/07/22 – 10/07/22) and 31 (01/08/22 – 07/08/22).** *It is expected that the frequencies presented for the last week under analysis (ISO week 31*) might change in the next report, given that some data from that period is still being processed.* ***This and other graphs can be explored interactively on the website.***

Autorship

Genomics and Bioinformatics Unit
Department of Infectious Diseases
NATIONAL INSTITUTE OF HEALTH DOUTOR RICARDO JORGE
Avenida Padre Cruz, 1649-016 Lisboa, PORTUGAL

Recommended citation

National Institute of Health (INSA) Doutor Ricardo Jorge. Genetic diversity of the novel coronavirus SARS-CoV-2 (COVID-19) in Portugal. Lisbon, Portugal INSA; 2022. Available at: https://insaflu.insa.pt/covid19

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/

REPÚBLICA PORTUGUESA SAÚDE
SNS SERVIÇO NACIONAL DE SAÚDE
Instituto_Nacional de Saúde Doutor Ricardo Jorge