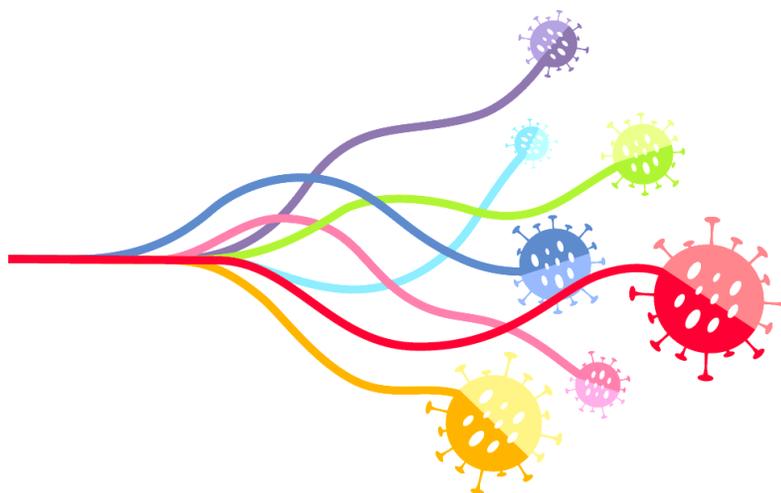


SARS-CoV-2 Variants in Bangladesh

Technical briefing

Interim Report: January 2022

This briefing provides an update on variants identified from 1 to 31 January 2022



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SUMMARY

According to WHO, 5 variants of concern (VOC) and 7 variants under investigation (VUI) have been reported globally. The **Omicron variant** is the latest addition which has been designated as VOC because of its transmissibility, immune system evasion, and vaccine resistance. It has already spread to 160 countries including 208 cases in Bangladesh as of 7 February 2022 (GIASID.ORG).

This report shares partial data on SARS-CoV-2 variant surveillance in Bangladesh during 1-31 January 2022.

Principal findings are:

- The **Omicron variant accounted for 80%** and Delta 20% from 1 to 31 January 2022.
- Overall, Omicron BA.1 (39%) and Omicron BA.2 (41%) were the most prominent lineages.
- Omicron BA.2 (79%) became dominant lineage in 2nd half of January 2022.
- Delta AY.131 (18%) emerged in December 2021 and became the leading Delta lineages.
- No variant unique to Bangladesh has been detected.

1. Variants in Bangladesh: 1-31 January, 2022

The consortium has sequenced 148 samples collected between 1 to 31 January 2022. These samples were collected from 8 divisions. Table 1 shows the total number of variants sequenced by region.

Table 1. Total number of confirmed cases by variant and region, 1-31 January, 2022

Division	Sample received	Omicron BA.1	Omicron BA.2	Delta AY.131	Other Delta	Total sequenced
Dhaka	83	39	26	5		70
Chattogram	51	6	8	4		18
Rajshahi	34	4	11	3	4	22
Khulna	26	5	7	2		14
Barisal	15		6	3		9
Sylhet	10	1	2	3		6
Rangpur	14	3		4		7
Mymensingh	5			2		2
TOTAL	238	58	60	26	4	148

Out of 148 samples, 118 were Omicron (80%) and 30 Delta (20%). Among those, Omicron BA.1 (39%) and Omicron BA.2 (41%) were the most prominent lineages. We have also identified Delta AY.131 (18%) and other Deltas (2%). Figure 1 shows the percentage of the geographical distribution of different SARS-CoV-2 variants between 1 to 31 January 2022.

National SARS-CoV-2 Variant Surveillance in Bangladesh

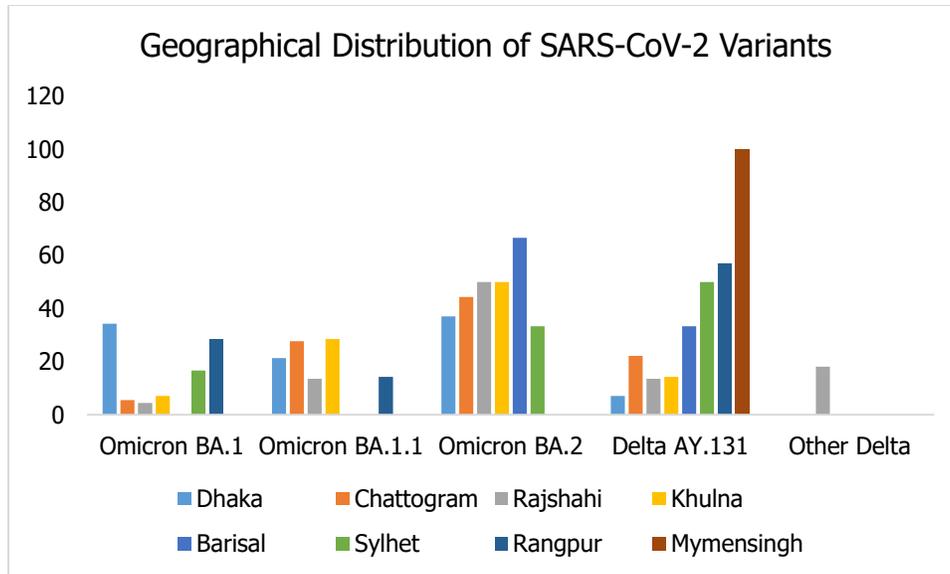


Figure 1. Geographical distribution percentage of SARS-CoV-2 variants in Bangladesh, 1-31 Jan 2022

3. NextStrain build of SARS-CoV-2 variant distribution in Bangladesh (1-31 January 2022)

A phylogenetic tree of the 148 complete genomes of Bangladesh variants (collected between 1-31 January 2022) sequenced by the consortium was constructed using NextClade (clades.nextstrain.org). Phylogenetic analysis reveals that there have been multiple introductions of Delta variants (clade 21J, 21K and 21L) across the country (Figure 2). From 1-31 January 2022, variant unique to Bangladesh has been detected.

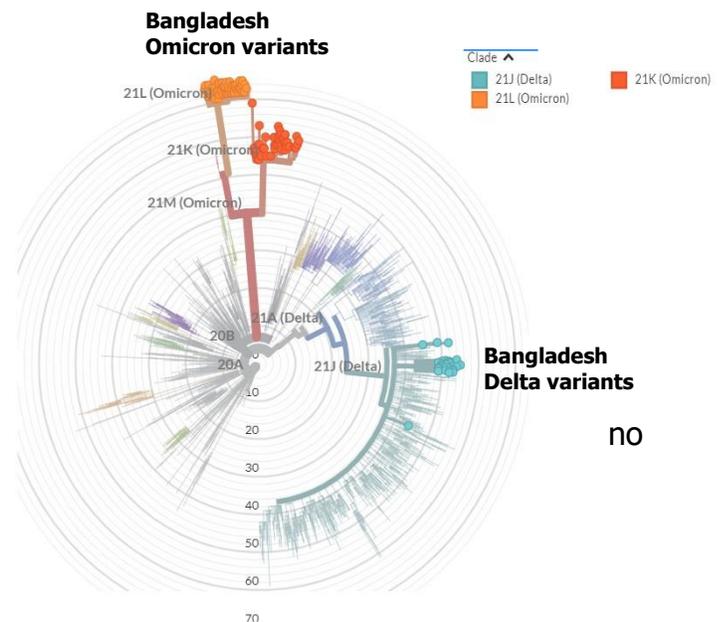


Figure 2. Phylogenetic tree of the 148 SARS-CoV-2 Bangladeshi variants in closed circle (collected 1-31 January 2022) sequenced by the consortium.