

INSACOG BULLETIN

26 December, 2022

The INSACOG reports genomic surveillance of SARS-CoV-2 by whole genome sequencing of samples from sentinel sites across the country and international passengers arriving in India. A summary of the cumulative data of INSACOG and other state sequencing initiatives can be found in the INSACOG data portal along with other INSACOG related information at <https://ibdc.rcb.res.in/>

INSACOG:

- Total number of samples sequenced is 269,932

Samples sequenced by IGSLs under State government MoUs: 34,763

Total number of samples sequenced: 304,695

The number of samples with pangolin lineages assigned are given below:

Table 1: Cumulative samples with pangolin lineage assigned (as on 23.12.2022)

Community sample	Travelers sample	Total pangolin lineage assigned	Total VOC/VOI	Percentage
185821	12285	198106	163438	82.5

Distribution of VOC and B.1.617.1 & B.1.617.3 (as on 23-12-2022)

Alpha Variant			Beta Variant			Gamma Variant			Delta Variant			B.1.617.1 and B.1.617.3			AY Series			Omicron*			Recombinant														XE Variant	XT Variant	XU Variant	XJ Variant	Total VOC/VOI
Tr&Co	Com	Total	Tr&Co	Com	Total	Tr&Co	Com	Total	Tr&Co	Com	Total	Tr&Co	Com	Total	Tr&Co	Com	Total	Tr&Co	Com*	Total	XAR	XAH	XBB	XBB.1	XBB.1.1	XBB.1.3	XBB.2	XBB.3	XBB.3.1	XBB.4	XBB.5	XBD	OTHERS	Total					
577	3690	4267	117	105	222	1	2	3	387	43575	43962	84	5540	5624	227	20248	20475	5952	81187	87462	2	1	412	210	2	3	281	333	5	20	63	7	73	1412	1	0	6	2	163438
Tr&Co= Travelers and contacts ; Com= Community samples																																							

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Global Scenario

Globally, the number of new weekly cases was similar to last week (+3%), with over 3.7 million new cases reported. The number of new weekly deaths decreased by 6% as compared to the previous week^[1]. During last week, BA.5 and its descendent lineages are still dominant globally, accounting for 68.4% of sequences submitted to GISAID. The prevalence of BA.2 and its descendent lineages is rising, mainly due to BA.2.75; together they account for 12.6% of sequences submitted. BA.4 and its descendent lineages are declining with a prevalence of 1.2%. At the global level, six variants currently under monitoring account for 72.9% of prevalence, and have replaced the former BA.5 descendent lineages. These six variants under monitoring (and the respective prevalence) are BQ.1* (42.5%), BA.5 with one or several of five mutations (S:R346X, S:K444X, S:V445X, S:N450D, S:N460X) (13.4%), BA.2.75* (9.8%), XBB* (6.1%), BA.4.6* (1%), and BA.2.30.2* (0.1%). Based on current evidence, there is no indication of increased severity associated with these variants under monitoring compared to the former Omicron lineages.

Indian Scenario

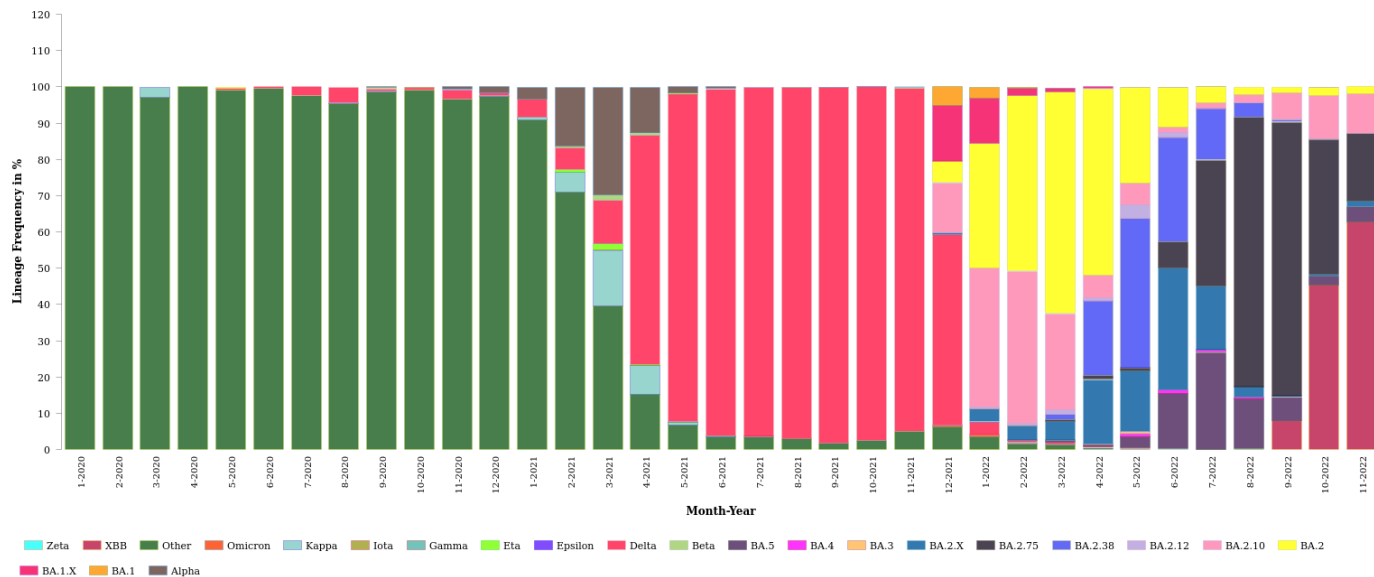
Omicron and its sub-lineages continued to be the dominant variant in India. Overall, the infection rate was around 200 per day. Among the samples collected till the end of November 2022, the prevalence of XBB and its sub-lineages was 62.6%, for BA.2.75, it was 18.7% whereas, BA.2.10 was 11.0% and those were continued to be the most commonly circulating Omicron sub-lineage. In northern half of India, BA.2.75 is the most prevalent sub-lineage whereas in middle and southern part of India, XBB is the most prevalent sub-lineage of omicron variant. Although the detection of different sub-lineages in different parts of India was dependent on variable collection dates in respective regions. However, any increase in disease severity or hospitalization has not been observed over this period. Any up-surge of BF.7 or BQ.1 sub-lineage has not been seen in India over last few weeks. However, INSACOG is closely monitoring the current scenario regarding those sub-lineages.

Country wide analysis:

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Month wise lineage distribution

As on: 23-12-2022

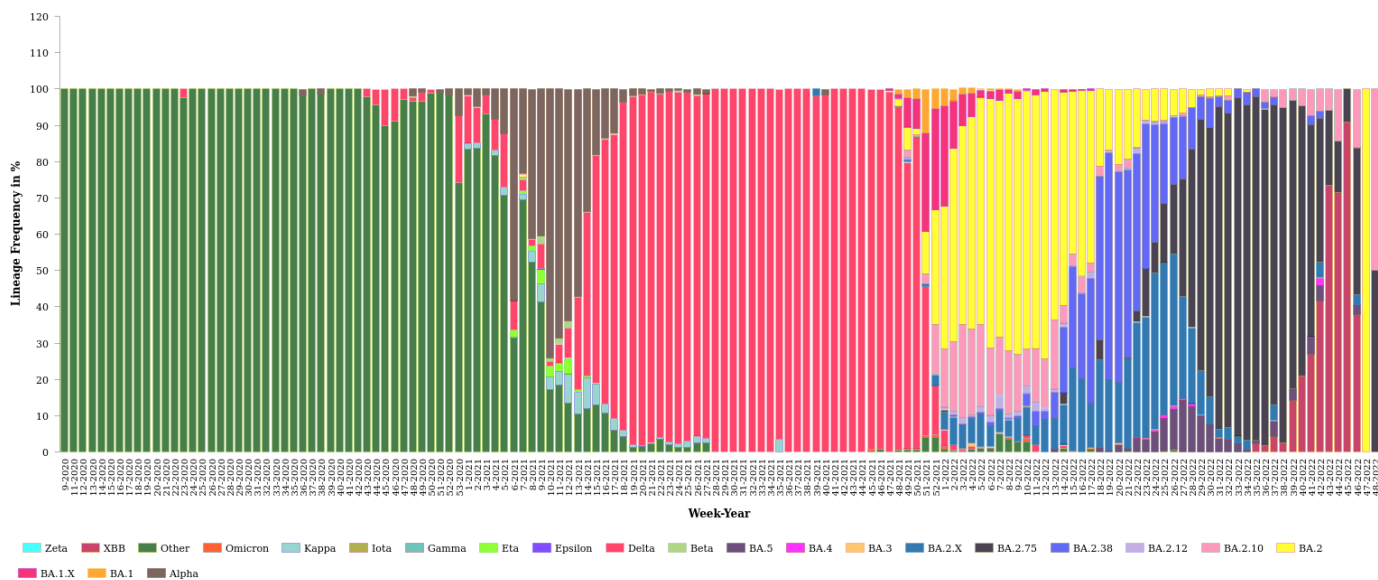


*BA.5 in the graph includes its sub-lineages also.

Region-wise analysis:

North India - Week wise lineage distribution

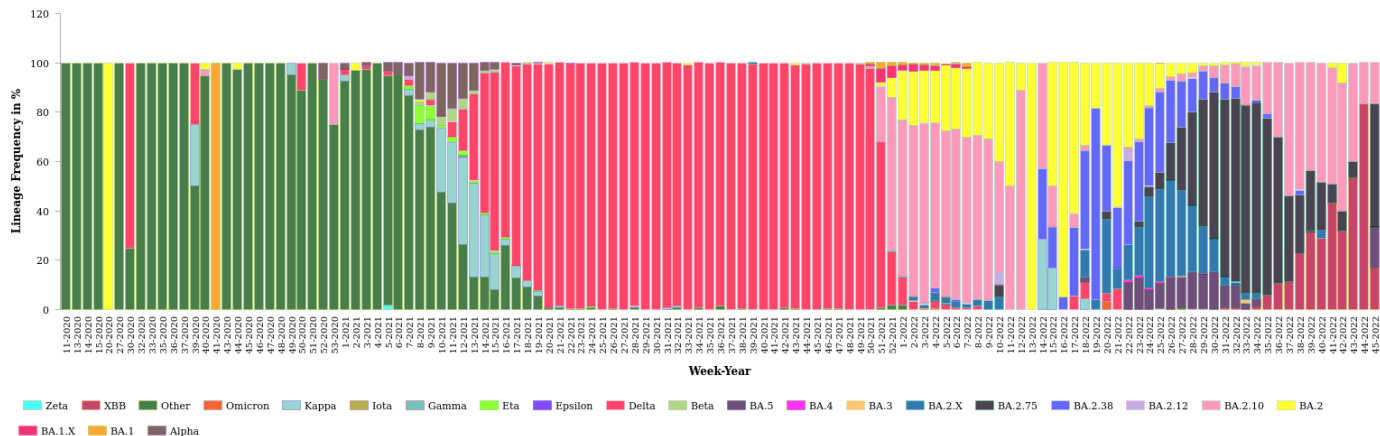
As on: 23-12-2022



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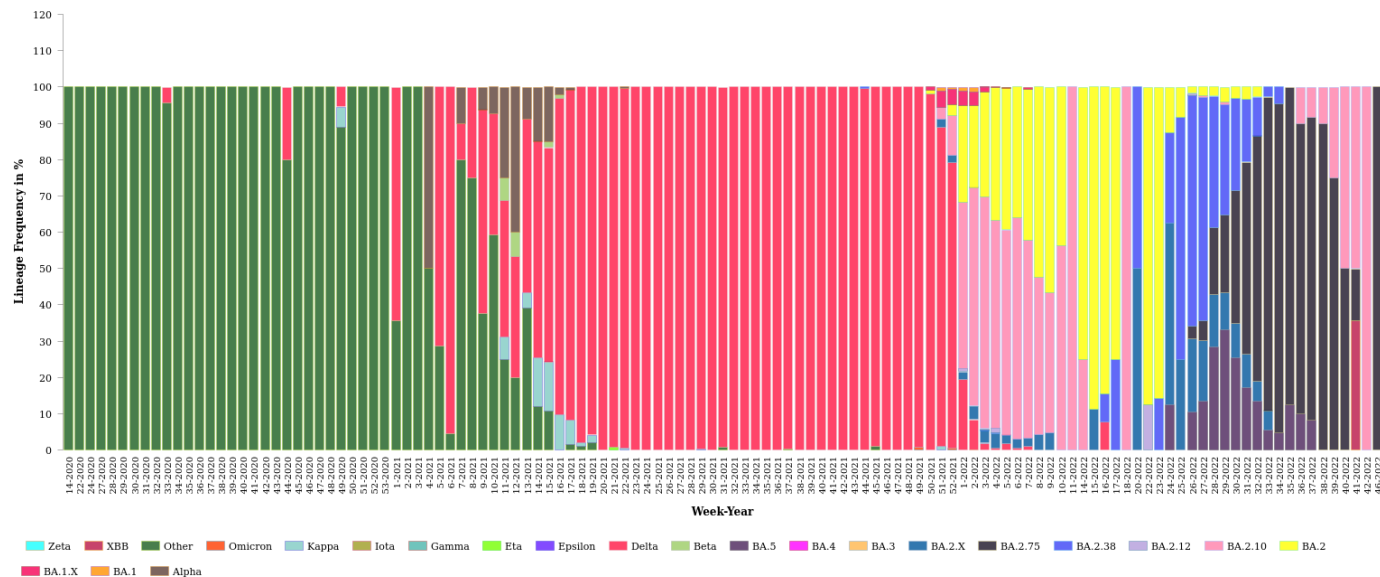
East India - Week wise lineage distribution

As on: 23-12-2022



NorthEast India - Week wise lineage distribution

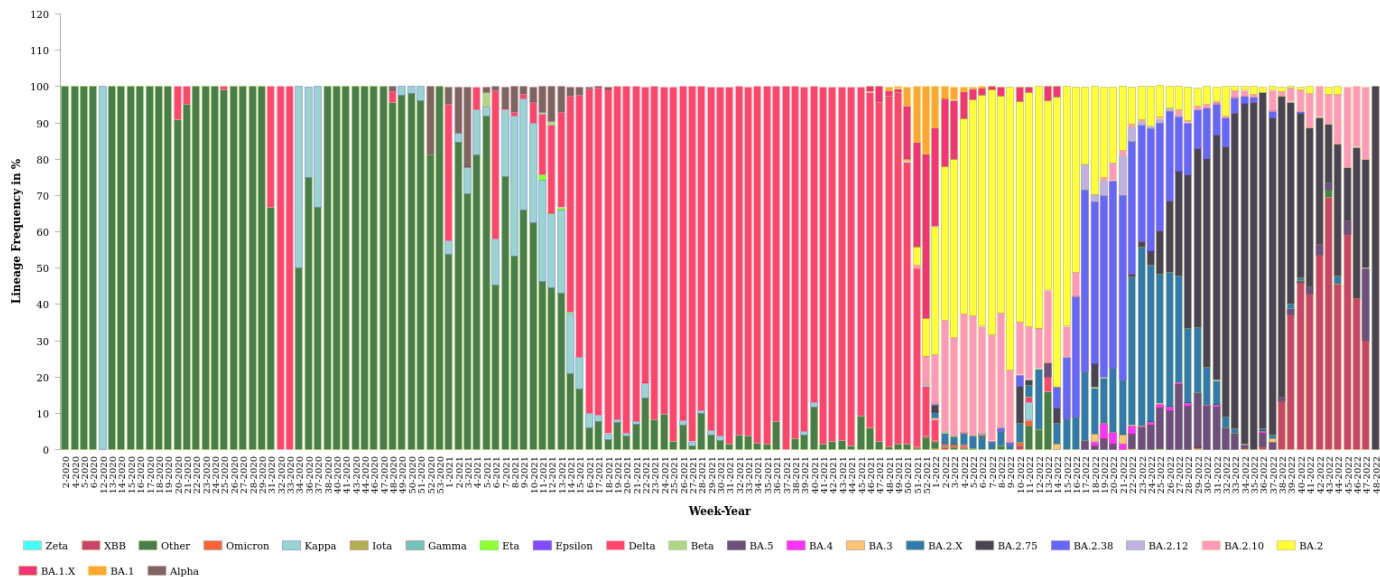
As on: 23-12-2022



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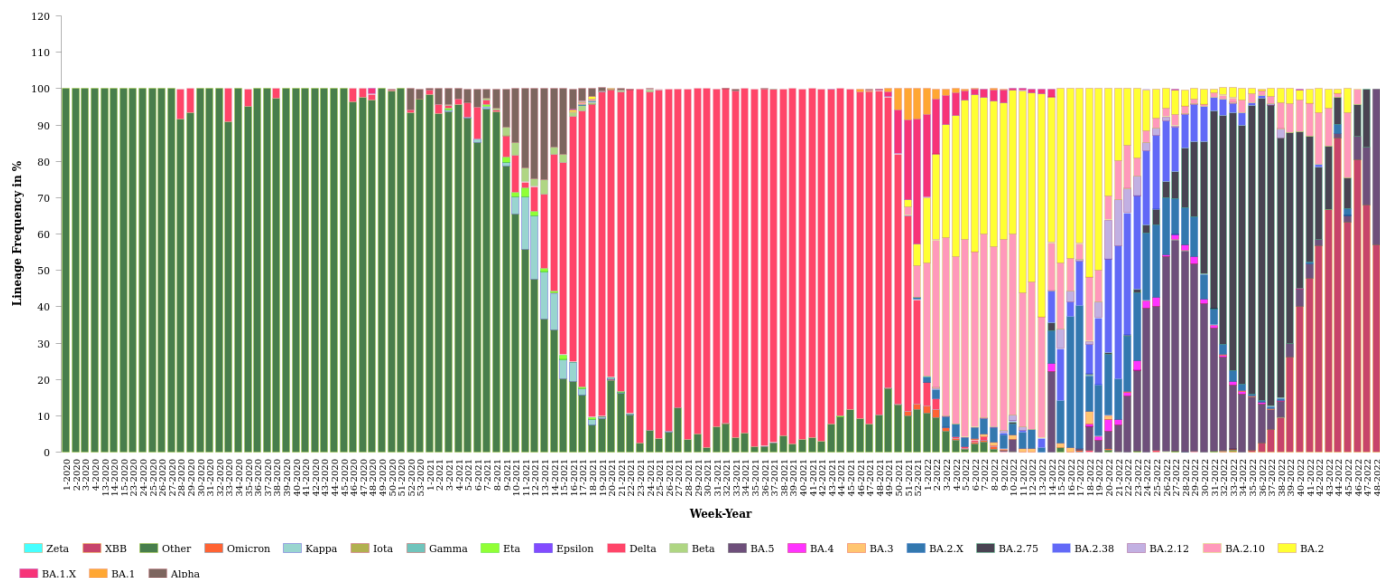
West India - Week wise lineages distribution

As on: 23-12-2022



South India - Week wise lineages distribution

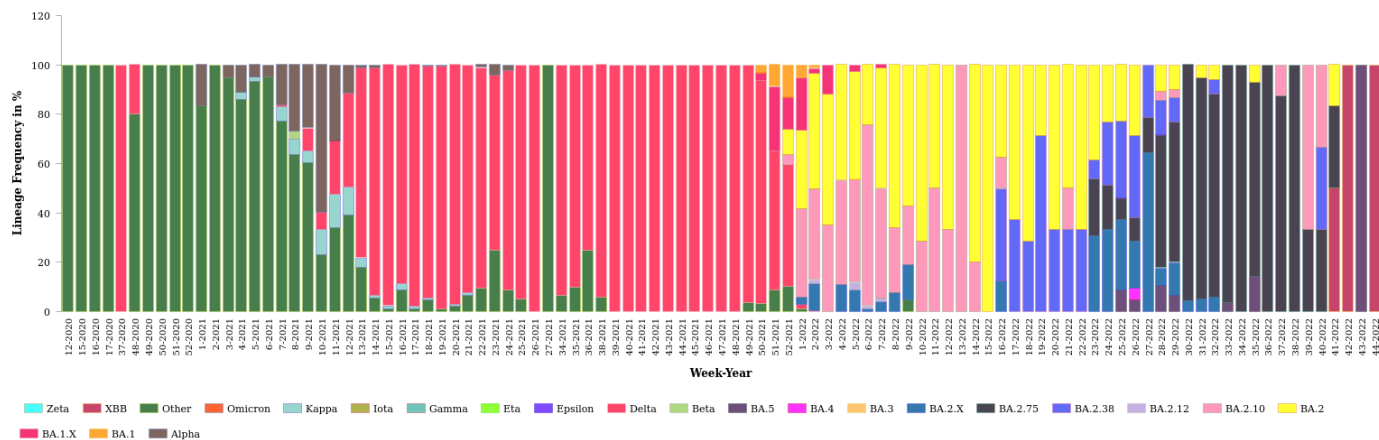
As on: 23-12-2022



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Central India - Week wise lineage distribution

As on: 23-12-2022



Reference:

1. WHO weekly epidemiological report.