INSACOG BULLETIN

3rd April, 2023

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 276,292

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

Total number of samples sequenced: 311,055

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

Table 1: Cumulative samples with pangolin lineage assigned (as on 31.03.2022)

Community sample	Travelers sample	Total pangolin lineage assigned	Total VOC/VOI	Percentage
192500	**12449**	**204949**	**170072**	**83.0**

DISTRIBUTION OF LINEAGES (AS ON 31-03-2023)

Alpha Variant			Beta Variant			Gamma Variant			Delta variant			B.1.617.1 and B.1.617.3			AY Series			Omicron*		
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
577	3691	4268	117	105	222	1	2	3	442	44217	44659	84	5540	5624	270	20357	20627	6265	84306	90894

Tr&Co= Travelers and contacts ; Com= Commumity samples

DISTRIBUTION OF LINEAGES (AS ON 31-03-2023)

Recombinant																																							XE Variant	XM Variant	XU Variant	XJ Variant	XG Variant	Total VOC/VOI
XAR	XAH	XAB	XAG	XAW	XBB	XBB.1	XBB.1.1	XBB.1.2	XBB.1.3	XBB.1.4	XBB.1.5	XBB.1.5.4	XBB.1.5.5	XBB.1.5.7	XBB.1.5.8	XBB.1.5.18	XBB.1.9	XBB.1.9.1	XBB.1.9.2	XBB.1.11	XBB.1.16	XBB.1.16.1	XBB.2	XBB.2.1	XBB.2.3	XBB.2.4	XBB.3	XBB.3.1	XBB.4	XBB.5	XBC	XBC.1	XBD	XBF	XBP	XBL	OTHERS	Total						
3	1	1	2	1	662	767	4	3	8	2	248	1	2	1	1	1	17	29	12	2	477	21	548	1	195	45	435	5	25	83	1	1	6	7	1	3	137	3759	1	2	10	1	2	170072

Tr&Co= Travelers and contacts ; Com= Commumity samples

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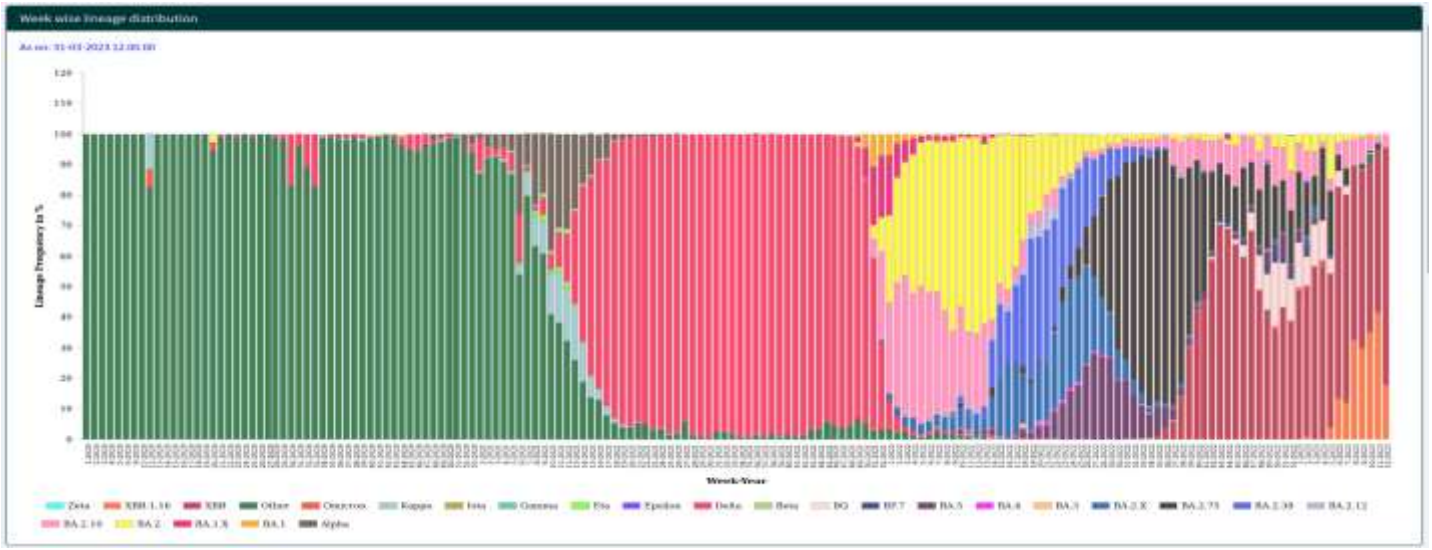
Global Scenario

Globally, nearly 3.6 million new cases and 25000 deaths have been reported in the last 28 days[1]. During the week 10 of the year 2023, there has been a continued increasing trend in the proportions of recombinant lineages globally. Despite this overall downward trend, it is important to note that several countries have recently reported significant increases in cases. Currently, there is one variant of interest (VOI), XBB.1.5, and six variants under monitoring (VUMs). The VUMs are BQ.1, BA.2.75, CH.1.1, XBB, XBF and XBB.1.16; XBB.1.16 was added to this list on 22 March 2023. XBB.1.16 is a recombinant of BA.2.10.1 and BA.2.75 and has three additional mutations in the SARS-CoV-2 spike protein (E180V, F486P and K478R) compared to its parent lineage XBB. The F486P mutation is shared with XBB.1.5. 712 XBB.1.16 sequences have been reported from 21 countries. However, so far reports do not indicate a rise in hospitalizations, ICU admissions, or deaths due to XBB.1.16.

Indian Scenario

Omicron and its sub-lineages continue to be the dominant variants in India. An increase in infection rate has been observed. A newly emerged recombinant variant XBB.1.16 has been observed in Western and Southern part of India, accounting for 17.8% of the infection till date. Among the samples collected till the third week of March 2023, XBB continued to be the most commonly circulating Omicron sub-lineages (77.8%). A few BA.2.10 sub-lineage was detected in some part of India**,** whereas XBB was the most prevalent sub-lineage of omicron variant. Since the number of samples were relatively low in some part of India, the graphical representation should be considered in that perspective too. However, no increase in disease severity or hospitalization has been observed.

Country wide analysis:



Region-wise analysis:

INDIAN SARS-CoV-2 GENOMICS CONSORTIUM

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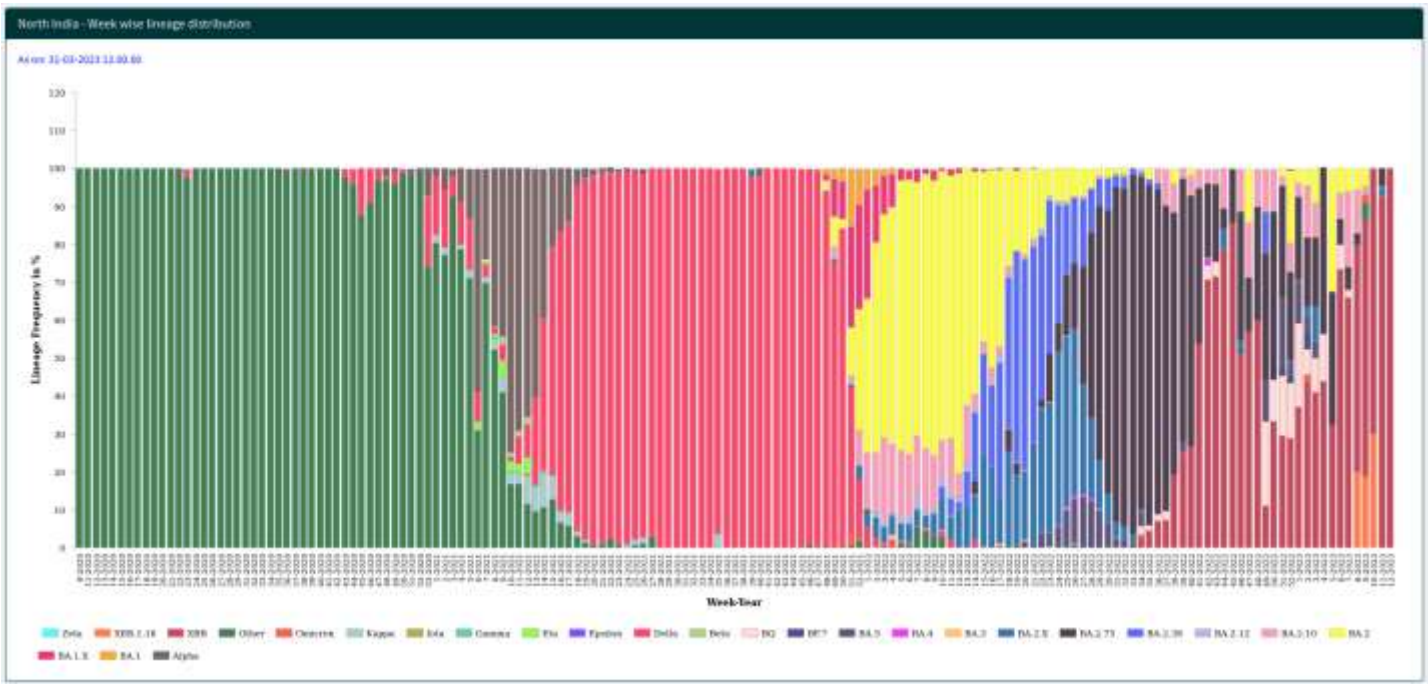

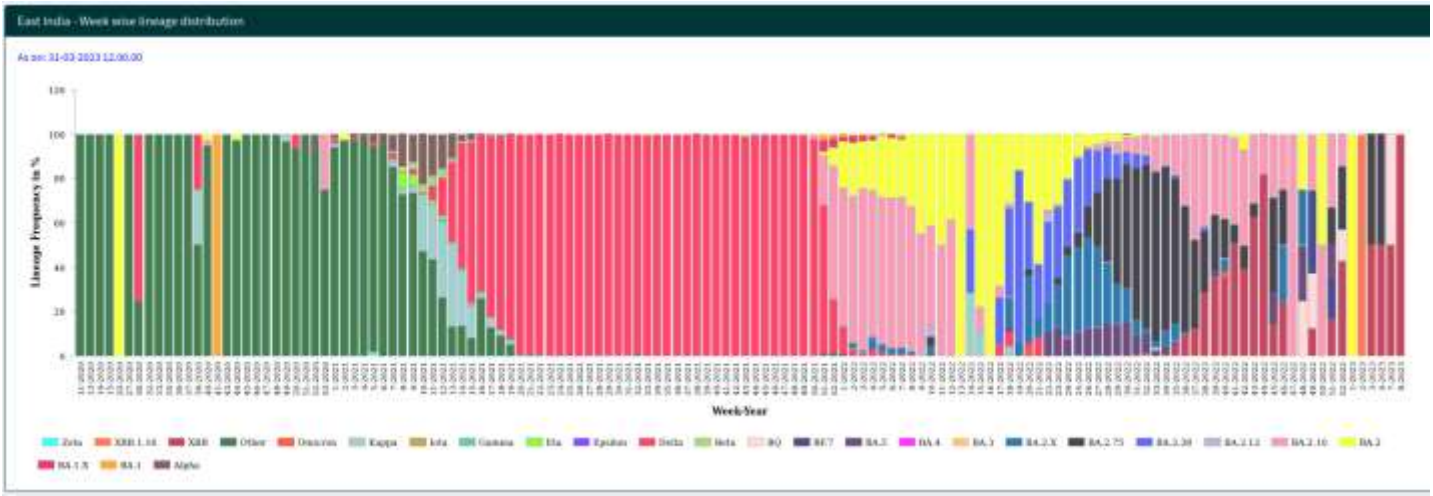

INDIAN SARS-CoV-2 GENOMICS CONSORTIUM

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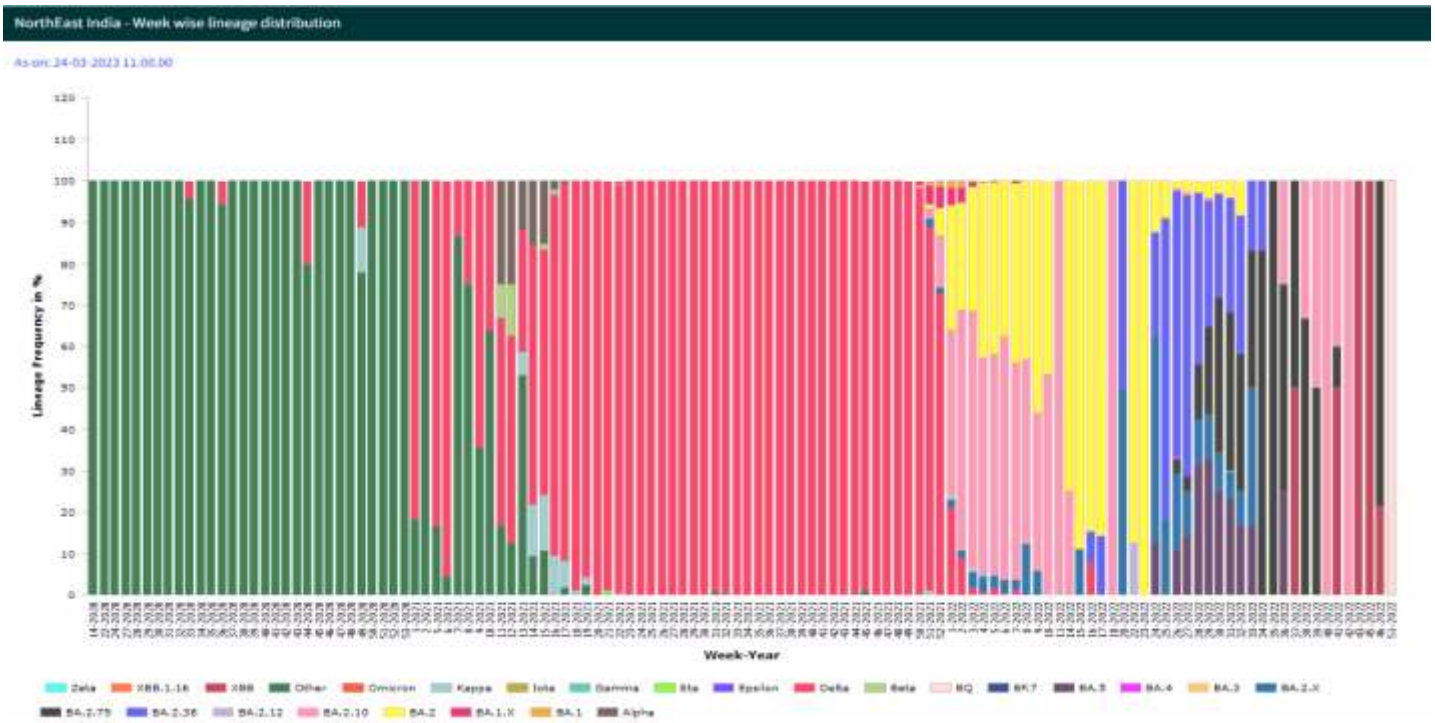

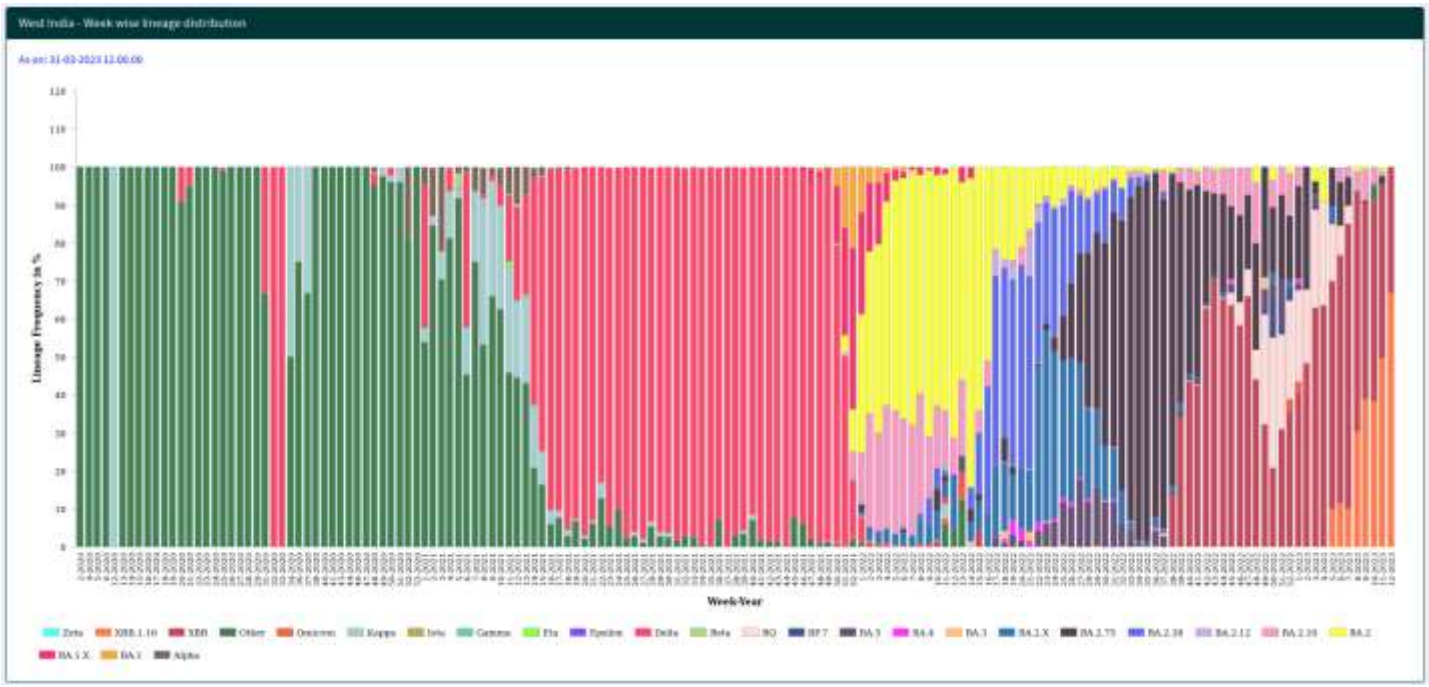

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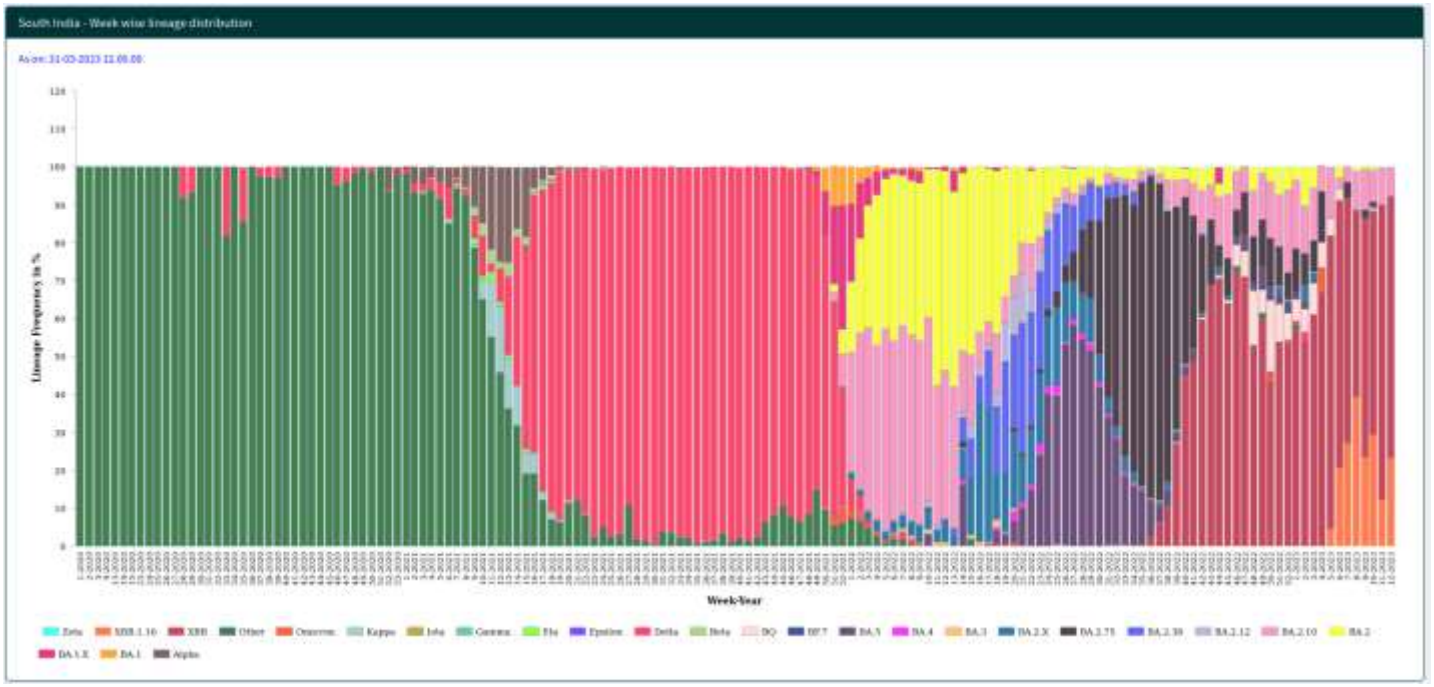

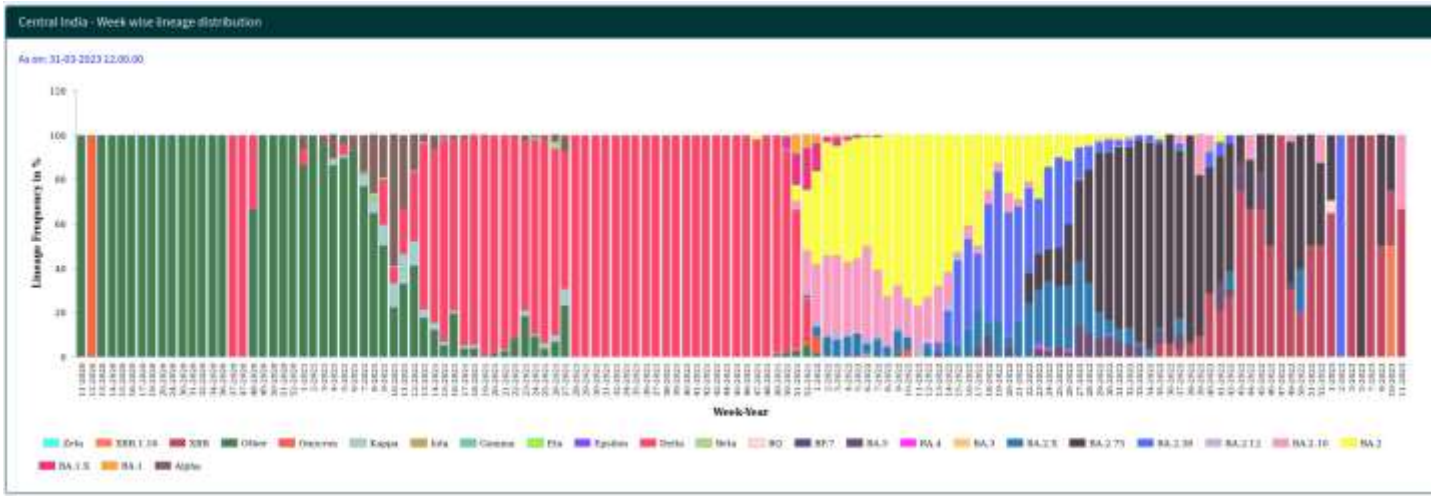

Reference:

1. WHO weekly epidemiological report.