

A hand is shown cutting out letters from a newspaper. The letters are arranged to spell out 'Bicultural Healthy Living' in a colorful, blocky font. The background is a wooden surface covered with newspaper clippings and cut-out letters.

STRATEGY INTRO: Increase demand for, and access to flu, COVID-19, and other adult vaccinations via 40 pop-up community clinics at the places that cultural groups feel comfortable and connected, and increase regularity of vaccine promotion in priority communities; and increase the percentage of pan-Asian and pan-African seniors who are up-to-date with recommended adult vaccinations.

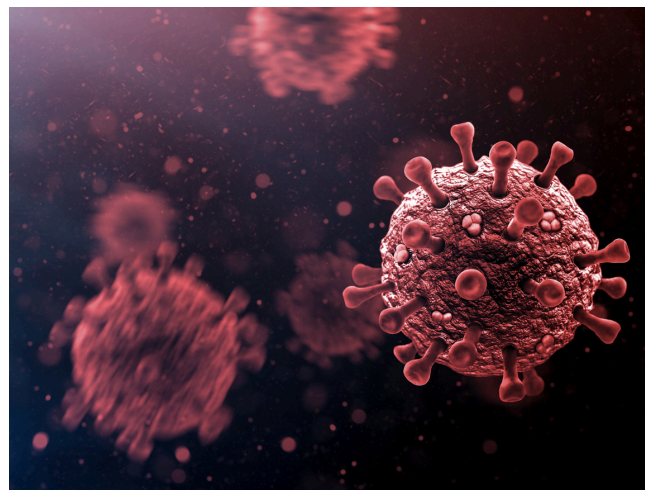
THE EMERGENCE OF COVID-19 VARIANTS IN SUMMER 2025: NB.1.8.1 AND XFG CHALLENGE GLOBAL HEALTH RESPONSE

As summer 2025 unfolds with travel at an all-time high, health officials are closely monitoring multiple new COVID-19 variants that have emerged as significant concerns. The variants NB.1.8.1 and XFG are beginning to reshape the pandemic landscape as they spread across the United States and other countries worldwide, presenting a complex challenge for global health authorities.

WHAT IS NB.1.8.1?

NB.1.8.1 is a descendant of the Omicron JN.1 lineage, and has demonstrated increased transmissibility compared to LP.8.1, the previously dominant global strain, making it a formidable contender for driving summer case increases.

The variant first gained attention in late April 2025 when it began surging in



China. Within weeks, it had spread internationally, with detection confirmed in multiple U.S. states including New York, Illinois, Texas, and California. Global genome sequencing data shows that NB.1.8.1 accounted for 10.7% of sequenced COVID cases worldwide between April 21-27, 2025, representing a dramatic increase from just 2.5% a month earlier. (1)

WHAT IS XFG?

Adding to the complexity of the summer 2025 variant landscape, the World Health Organization recently designated XFG as a "variant under monitoring"—the least urgent of WHO's variant categories but still significant enough to warrant close observation. (2) XFG is spreading most widely in Southeast Asia, although cases have been reported in 38 countries worldwide. According to the UK Health Security Agency (UKHSA), XFG variants currently account for just over 30% of COVID cases in the U.K. and 14% of confirmed cases in the U.S., according to the Centers for Disease Control and Prevention.

Perhaps most concerning, samples of XFG sent to the global database of genetic virus sequences jumped from 7% of all COVID-19 samples in May 2025 to nearly 23% just a few weeks later. XFG represents a unique evolutionary development as it derives from the JN.1 Omicron group through recombination—a combination of two other variants, LF.7 and LP.8.1.2. Compared to the currently dominant NB.1.8.1 variant, XFG contains nine additional mutations in the spike protein, potentially affecting its transmissibility and immune evasion capabilities. (3)

Table 1: Global proportions of SARS-CoV-2 Variants, epidemiological week 19 to 22 of 2025

Lineage*	Countries§	Sequences§	2025-19	2025-20	2025-21	2025-22
VOIs						
JN.1	144	342221	9.2	9.0	10.7	15.3
VUMs						
KP.3	86	61946	1.9	1.2	1.4	0.8
KP.3.1.1	91	119109	5.0	3.9	3.9	3.8
LB.1	99	25816	0.6	0.5	0.9	0.3
XEC	78	54778	11.0	9.9	6.1	5.2
LP.8.1	60	21618	33.5	30.1	30.0	22.6
NB.1.8.1	37	4176	25.1	29.6	26.4	24.9
XFG	38	1649	7.4	9.5	15.7	22.7
Recombinant	145	514376	6.2	6.1	5.2	4.4
Others	111	35307	0.1	0.1	-	-

SYMPTOMS AND CLINICAL PRESENTATION

One of the most notable characteristics of NB.1.8.1 infections is the severity of throat symptoms, leading some to nickname it the "razor blade throat" variant. Patients frequently report intense throat pain that distinguishes this variant from previous strains. While the complete symptom profile is still being documented, the throat

symptoms appear to be more pronounced and persistent than those typically associated with other recent variants. One of the most noticeable symptoms of the XFG (Stratus variant) is hoarseness, which includes a scratchy or raspy voice. Despite these concerning symptoms, health experts emphasize that the variant does not appear to cause more severe illness overall or show significant ability to evade immune protection compared to previous strains. (4)

SUMMER 2025 SURGE POTENTIAL

Health authorities across multiple continents are preparing for a potential summer surge driven by NB.1.8.1 and XFG. The timing is particularly concerning as it breaks from typical seasonal patterns. Traditionally, respiratory viruses like COVID-19 have shown more predictable seasonal behaviors, but recent variants have demonstrated the ability to cause significant waves throughout the year, regardless of season. (2)



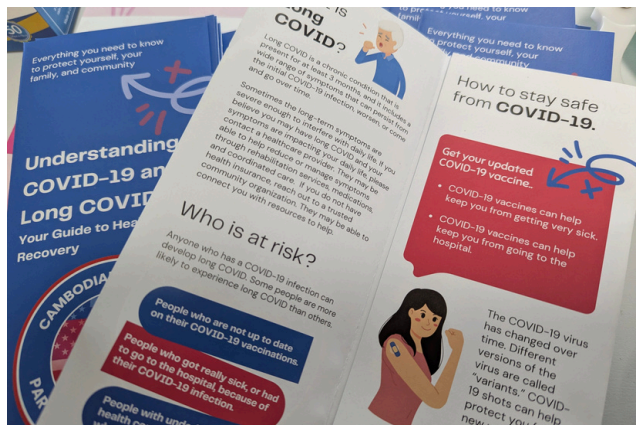
VACCINE EFFICACY AND NEEDED PUBLIC RESPONSE

Existing immunity, whether from prior infection or vaccination, is expected to provide some protection against severe illness, as NB.1.8.1 and XFG remain phylogenetically linked to the Omicron family. The 2024-2025 COVID-19 vaccine should offer cross-protection. Public reaction to the new variant has been polarized. While some individuals express concern and advocate for renewed preventive measures such as masking and booster vaccinations, others dismiss the risks, arguing that COVID-19 no longer poses a significant threat. (1)

Nevertheless, with hundreds of Americans still dying weekly from the virus, health officials stress that precautions remain vital, particularly for vulnerable populations, including older adults and immunocompromised individuals. To minimize transmission, experts recommend:

- Receiving the updated vaccine, especially for high-risk groups
- Wearing high-quality masks (KN95/N95) in crowded indoor settings
- Testing and isolating when symptomatic to prevent further spread

Although NB.1.8.1 and XFG do not appear to cause more severe illness than previous variants, its increased transmissibility could lead to higher case numbers, potentially burdening healthcare systems though. The ongoing debate over vaccines and masking reflects broader societal fatigue with pandemic-related measures. However, experts emphasize that COVID-19 remains a persistent public health challenge. Continuous monitoring of the variant's spread and adaptive prevention strategies will be essential for mitigating its impact in the coming months.



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