



COVID-19 Omicron Subvariant XBB.1.5

January 2023

Background

Since the COVID-19 Omicron variant was deemed a variant of concern in November 2021, it has become the dominant strain of COVID-19 globally and continues to circulate. While many are familiar with the BA lineages ([BA.1](#), [BA.2](#), [BA.3](#), [BA.4](#), [BA.5](#), etc.) that caused the majority of infections in 2022 in BC and across Canadaⁱ, research shows that a newer sublineage referred to as XBB.1.5 appears to be increasing rapidly throughout the world and is now being detected in British Columbia.ⁱⁱ

The XBB.1.5 sublineage is part of a larger family of XBB sublineages, all of which are evolutions of the preceding Omicron BA strains.ⁱⁱⁱ XBB.1.5 contains a larger number of mutations than the previous Omicron subvariants, thus leading to its increased transmissibility.^{iv} Real world data also shows that XBB.1.5 jumped from approximately 1.3% of COVID-19 cases in the United States in the first week of December 2022, to 40.5% of the cases by December 31, 2022.^v In the northeastern region of the United States, it has increased even more, accounting for approximately 70% of total cases as of January 2023.^{vi} Globally, XBB.1.5 appears to be growing sporadically in some centres, but is expected to continue to grow based on its rapid activity in the US.

In Canada, as of January 4, 2023, the Public Health Agency of Canada announced that 21 cases had been confirmed nationally, 12 of which were identified in BC.^{vii} Using layers of protection including wearing a good quality, well-fitting mask; ensuring adequate ventilation; staying home when feeling unwell; hand washing thoroughly and regularly; practising distancing measures; and staying up to date with COVID-19 vaccinations remain an important way to protect against infection.

While XBB.1.5 appears to be more transmissible due to its high number of mutations, further investigation is required to determine if there are any other effects caused by these mutations to the severity of illness or long COVID-19 symptoms. Preliminary data from one December study demonstrates that XBB sublineages may have increased immunity evasion^{viii}, however, data is still being collected and analyzed.

As leaders in public health and immunization, nurses continue to maintain the public's trust in providing evidence-informed, safe, and ethical care throughout the COVID-19 pandemic and are relied upon for the most up-to-date information about current COVID-19 variants in circulation. As COVID-19 and other health emergencies continue to take a toll on an overwhelmed health care system, British Columbians are strongly encouraged to continue to use their layers of protection and stay up to date with immunizations in order to protect their own health, and that of the wider community.

Remaining up to date with the most recent information about XBB.1.5 and other COVID-19 news is essential. Nurses can continue to spread this information when working directly with the public as well as through broader health networks. The [BC Centre for Disease Control](#) and the [Public Health Agency of Canada](#) continue to monitor COVID-19 developments provincially and nationally, as well as provide pertinent resources and updates.

Key Messages

- The Omicron variant was designated a variant of concern in November 2021 and was the predominant variant leading to COVID-19 infections throughout 2022.
- In the US, the XBB.1.5 subvariant was responsible for approximately 1.3% of infections in early December but accounted for 40% of new infections in the US by December 31, 2022, and 70% of infections in the northeastern US alone.
- XBB sublineages are evolutions of the preceding BA lineages with a greater number of mutations which lead to increased transmissibility.



- Preliminary evidence shows that XBB.1.5 may have increased immunity evasion, however, data is still being collected and analyzed.
- Vaccines available for use in Canada, particularly the bivalent vaccines, remain a strong defense protection against COVID-19.
- In addition to keeping up to date with COVID-19 immunizations, wearing a good quality, well-fitting mask; ensuring adequate ventilation; staying home when unwell; washing hands frequently and thoroughly; and maintaining physical distance remain effective ways to protect against infection.
- Nurses continue to be at the forefront of COVID-19 pandemic response by providing safe, ethical, and evidence-informed care.

Further Reading/Resources

- [COVID-19 Omicron Variant](#)
- [Omicron Subvariants: BA.4 and BA.5](#)
- [Omicron Subvariant BA.2](#)
- [BCCDC: COVID-19 Variants](#)
- [World Health Organization Statement on Omicron sublineages BQ.1 and XBB](#)
- [Global News: 21 cases of XBB.1.5 COVID subvariant confirmed in Canada](#)

ⁱ BC Centre for Disease Control. 'Weekly update on Variants of Concern (VOC).' Jan 5, 2023. http://www.bccdc.ca/Health-Info-Site/Documents/Voc/VoC_Weekly_Summary_20230105.pdf.

ⁱⁱ Tetrault-Farber, G, and Rigby, J. Reuters. 'Explainer: What do we know about COVID variant XBB.1.5?' Jan 5, 2023. <https://www.reuters.com/business/healthcare-pharmaceuticals/what-do-we-know-about-xbb15-omicron-subvariant-2023-01-05/>.

ⁱⁱⁱ World Health Organization. 'TAG-VE statement on Omicron sublineages BQ.1 and XBB.' Oct 27, 2022. <https://www.who.int/news/item/27-10-2022-tag-ve-statement-on-omicron-sublineages-bq.1-and-xbb>.

^{iv} Rosen, A. *Johns Hopkins Bloomberg School of Public Health*. 'What You Need to Know About XBB.1.5, the Latest Omicron Variant.' Jan 6, 2023. <https://publichealth.jhu.edu/2023/what-you-need-to-know-about-xbb15-the-latest-omicron-variant>.

^v Centers for Disease Control and Prevention; US Dept of Health and Human Services. 'COVID Data Tracker.' Accessed Jan 4, 2023. <https://covid.cdc.gov/covid-data-tracker/#variant-proportions>;

Rosen, A. *Johns Hopkins Bloomberg School of Public Health*. 'What You Need to Know About XBB.1.5, the Latest Omicron Variant.' Jan 6, 2023. <https://publichealth.jhu.edu/2023/what-you-need-to-know-about-xbb15-the-latest-omicron-variant>.

^{vi} Wright, T. *Global*. 'XBB1.5: Here's what we know about the 'most transmissible' COVID strain yet.' Jan 4, 2023. <https://globalnews.ca/news/9386623/xbb15-covid-subvariant-what-we-know/>.

^{vii} Wright, T. *Global*. XBB1.5: *Here's what we know about the most transmissible COVID strain yet.* Jan 4, 2023.

^{viii} Wang, Q, Iketani, S, Li, Z, et al. *Cell*. 'Alarming antibody evasion properties of rising SARS-CoV-2 BQ and XBBsubvariants.' Dec 13, 2022. [https://www.cell.com/cell/fulltext/S0092-8674\(22\)01531-8](https://www.cell.com/cell/fulltext/S0092-8674(22)01531-8).