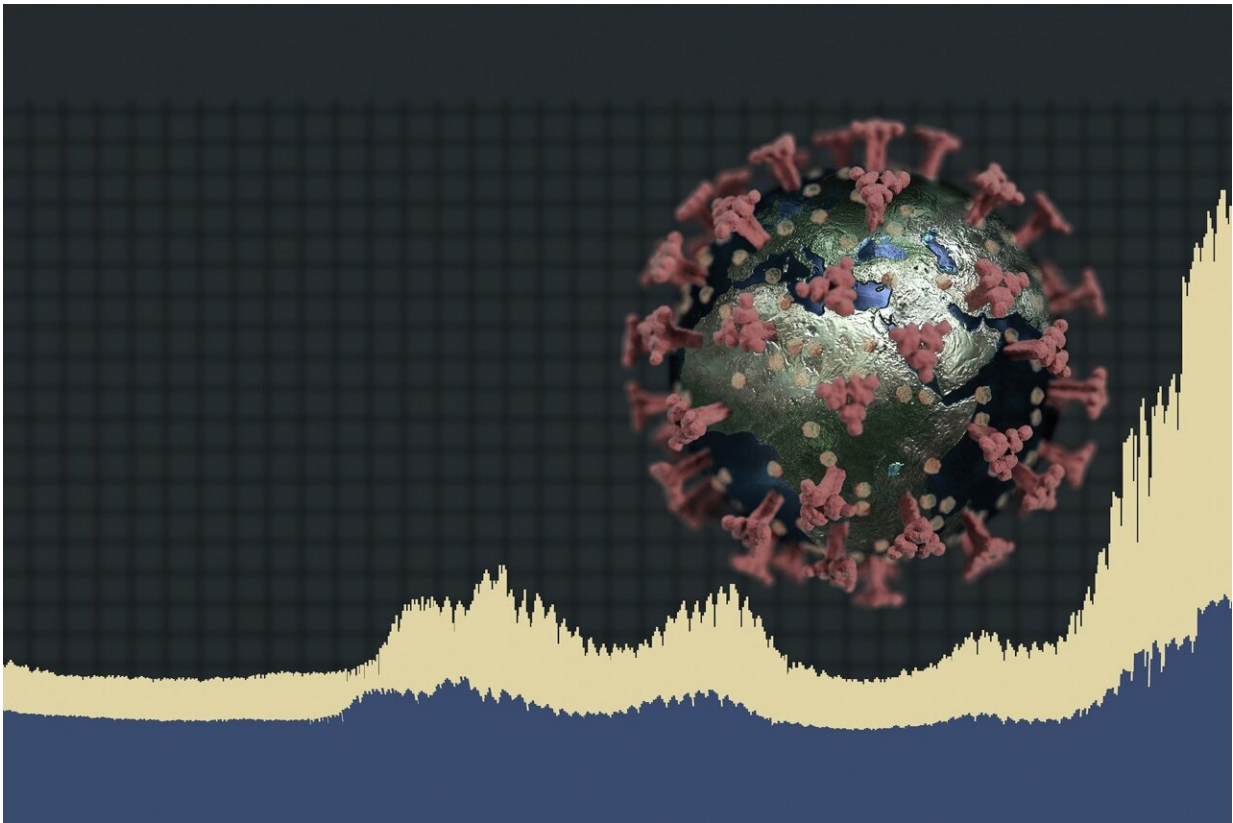# Omicron XBB1.5 'Kraken' subvariant appears to be the most transmissible so far

January 19 2023, by Kathy Katella

Credit: Pixabay/CC0 Public Domain

It may feel like history is repeating itself with yet another strain of the SARS-CoV-2 virus driving up cases of COVID-19. The latest is called XBB.1.5 (nicknamed "Kraken," by some), and it's another descendent of

the omicron variant. Like previous versions of the virus, it has been described as the most transmissible strain so far, more efficient and contagious than its predecessors.

"Even people who have protection from vaccination or a recent case of COVID-19 have been infected," says Yale Medicine infectious diseases specialist Scott Roberts, MD.

It also has impeccable timing, emerging just as the cold weather kicked in and people gathered inside to celebrate the holidays.

So what does all this mean? We spoke with Dr. Roberts, who answered questions about XBB.1.5.

Where did XBB.1.5 come from?

You might have heard of an omicron subvariant called "XBB" that swept through Singapore last fall. XBB.1.5 is a descendent of that strain.

XBB.1.5 was first identified in the United States in New York in October 2022. Both XBB and the Kraken version (XBB.1.5) are recombinant (or hybrid) virus subvariants, meaning they are made up of two strains—in this case, two offshoots of the omicron BA.2 sublineage. It is believed that both strains infected one person and mixed to form the hybrid XBB, which spawned additional mutations. "Flu viruses do this all the time," says Dr. Roberts. "It may not mean anything different, except that this is another way the virus can mutate and something to keep an eye on."

Why is it nicknamed 'Kraken'?

The Kraken is an enormous mythical multi-tentacled sea monster, like a

giant squid or octopus, in Scandinavian lore. XBB.1.5 was nicknamed "Kraken" by some scientists online who were noticing its rapid spread.

How transmissible is XBB.1.5?

The World Health Organization (WHO) has called XBB.1.5 the most transmissible omicron strain so far. In the U.S., it has spread like wildfire in the New England area, where infections rose over a short period of time to more than 81% of cases as reported by the Centers for Disease Control and Prevention (CDC) in the second week of January.

So far, national statistics are lower and vary by region—that same week, XBB.1.5 infections were less than 9% in the Midwest area that includes Iowa, Kansas, Missouri, and Nebraska. But, overall, national numbers have been climbing. For example, at the beginning of December, XBB.1.5 made up less than 2% of COVID-19 infections in the country; by the end of the second week of January, that figure was 43%. If you want to check for updates, the CDC tracks the progress of SARS-CoV-2 variants currently circulating.

Does XBB.1.5 cause severe disease?

There is no evidence yet that XBB.1.5 causes more severe disease than other omicron strains. "Studies are ongoing, but I suspect that it's probably not more severe," Dr. Roberts says. That said, there have been increases in hospitalizations in the Northeast, he explains, adding that this may be because there are more people getting infected, in general, including those who are older and more prone to infection, severe disease, and death from COVID-19.

How well do vaccines work against XBB.1.5?

It will take time to gather the long-term data to show how well [vaccines](link) work against XBB.1.5. But Dr. Roberts says those who got the [Pfizer-BioNTech or Moderna bivalent booster](link) are likely to have some decent protection, especially against [severe disease](link) and death. Those boosters target the omicron subvariants BA.4 and BA.5, in addition to the original virus, so it might be expected that they would work at least to some extent against another omicron strain. "We are urging people to get the bivalent booster if they haven't already," Dr. Roberts says.

How well can we expect treatments to work?

Paxlovid and some other antiviral treatments, like remdesivir, are expected to be effective against XBB.1.5, Dr. Roberts says. But the Food and Drug Administration (FDA), while it continues to await data, has said it does not anticipate that Evusheld, a COVID-19 preventive treatment, will neutralize XBB.1.5 because of the subvariant's similarity to other variants not neutralized by Evusheld (XBB, for example).

Should people be concerned about a new wave of COVID-19 cases?

"Even with an increase in cases, the numbers have been lower than with previous surges, and at this point, the virus has mutated to become milder," Dr. Roberts says. "I hope this can reach a stage where infection shouldn't have a major impact on our lives."

It's important to remember that there will still be people who are at high risk for serious disease because they are older or immunocompromised, and they risk infection from those who aren't taking mitigation measures, he says. Also, experts still don't know enough about who is at risk for [Long COVID](link), a condition marked by sometimes serious symptoms that can continue long after the infection is cleared.

Another issue is that the more infections there are, the more opportunities the virus has to evolve further, he adds. With that in mind, Dr. Roberts recommends people get vaccinated and then live their lives as safely as possible with respect to factors such as age, health status, and other people in their lives who may be at higher risk. Current recommendations for mitigation measures, such as wearing a mask, social distancing, testing, and more, are available on the CDC's website.

Provided by Yale University

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