Vaccine and Variant Education – FAQ

August 3, 2021

Which COVID variants are most concerning in Washington state?

The Washington State Department of Health currently lists four variants of concern:

1) Alpha

   The B.1.1.7 (alpha) variant is highly infectious, transmissible and can quickly spread from person to person. Based on published studies, the B.1.1.7 (alpha) variant potentially causes more severe symptoms and increased risk of death in individuals who are infected. This variant was first identified in the United Kingdom.

2) Beta

   The B.1.351 (beta) variant is highly infectious, transmissible and can quickly spread from person to person. Results from experimental research studies show that the B.1.351 (beta) variant contains mutations that make it less likely to respond to antibody treatments. This variant was first identified in South Africa.

3) Gamma

   The P.1 (gamma) variant is highly infectious, transmissible and can quickly spread from person-to-person. Results from experimental research studies show that the P.1 (gamma) variant contains mutations that make it less likely to respond to antibody treatments. This variant was first identified in Japan/Brazil.

4) Delta

   Based on preliminary evidence, some antibody treatments may be less effective against the B.1.617.2 (delta) variant, and vaccine effectiveness may be lower. Delta spreads about twice as easily from one person to another than previous strains of the virus. Currently, Delta makes up the majority of Washington state's COVID cases as of July 2021. This variant was first identified in India.

There are other variants in Washington state that are currently labeled "variants of interest."

How does the Washington State Department of Health determine which variants are currently circulating in our state?

Genome sequencing is used to determine how a virus is mutating, or changing, over time. Not every COVID test if put through genome sequencing – instead, a sample of COVID PCR tests are used. These samples are all confirmed COVID positive. Washington state is currently sequencing at least 10% of positive COVID tests and 33,685 positive COVID tests have been sequenced since January 2020.

Why are we hearing so much about the Delta variant right now?

Delta has most recently surged to become the predominant variant – from less than 1% in May to over 80% of cases in July. New data show that people infected with Delta have higher viral loads—meaning more virus in their body—than with previous variants. Delta spreads about twice as easily from one person to another than previous strains of the virus.

Delta is causing some "vaccine breakthrough infections," meaning infections in fully vaccinated people, more than other strains have. But, even so:

- Most breakthrough infections are mild.
- Vaccines are working as intended—they are preventing severe illness, hospitalizations, and death.

What is the criteria for being considered a "vaccine breakthrough" case?

The criteria for identifying vaccine breakthrough cases include a positive lab test (either a PCR test or an antigen test) at least 14 days after a person received their last recommended dose of an authorized COVID-19 vaccine. Fourteen days is used because some people could get COVID-19 soon after vaccination when their body hasn't had enough time yet to build full protection. These infections are not considered vaccine breakthrough cases because they have not yet fully vaccinated. It typically takes about two weeks after the final dose of vaccine for the body to build a high level of protection against the disease.

How many vaccine breakthrough cases have happened in Washington state?

From January 17 - July 24, 2021, 4241 reports of possible breakthrough met the breakthrough case criteria. These 4241 cases are out of a total of 439,141 cases in Washington state, meaning the percentage of breakthrough cases in Washington state is less than 1% of our state's vaccinated population.

DOH reports that of the breakthrough cases that have data available as of July 24, 2021: 86% reported symptoms; 8% were hospitalized; and, 52 people died of COVID-related illness.

Do the vaccine breakthrough cases mean the vaccine isn't working?

No, 162+ million fully vaccinated Americans have a very strong degree of protection against the variants, including Delta. They are overwhelmingly avoiding severe illness, hospitalization, and death. Unvaccinated individuals account for virtually all the hospitalizations and deaths in the U.S. Despite seeing case numbers similar to the surge we experienced last summer, deaths are down more than 70% thanks to vaccination. This is further proof that getting fully vaccinated is the best thing you can do to protect yourself and those around you.

How does the Washington State Department of Health determine vaccine breakthrough cases?

DOH finds breakthrough cases in two ways:

1) Interviews with people who had a COVID positive test, where the DOH investigator asks if the interviewee is vaccinated; and,
2) Checking if people who test positive are vaccinated using the state's immunization registry.

Which variants are having the most success breaking through the vaccine?

DOH reports that vaccine breakthrough cases are being prioritized for whole genome sequencing so that the distribution of variants detected among breakthrough cases can be continually monitored. Currently, the delta and alpha variants have the highest rate of vaccine breakthrough (although it is worth noting that all breakthrough cases in Washington state make up less than 1% of total confirmed COVID cases).

Is one brand of vaccine having more breakthrough cases?

DOH reports that vaccine breakthrough has been associated with all three current authorized vaccines. It is misleading to look at breakthrough cases by vaccine brand since we have received and administered more of some brands than others. Additionally, each vaccine has a different dosing schedule so some people reach their 14th day after vaccination more quickly than others. These factors make it difficult to directly compare numbers of breakthrough cases among vaccine brands.

If I've had COVID, do I still need to get the vaccine?

Yes, the Advisory Committee on Immunization Practices (ACIP) recommends anyone who previously had COVID-19 to get the vaccine.

Data shows it is uncommon to be re-infected with COVID-19 in the 90 days after you were infected, so you might have some protection (called natural immunity). However, we don't know how long natural immunity might last.

People who **currently** have COVID-19 should wait to get vaccinated until they feel better and their isolation period is finished, if possible.

People who were recently exposed to COVID-19 should also wait to get the vaccine until after their quarantine period, if they can safely quarantine away from other people. If there is a high risk they could infect others, they may be vaccinated during their quarantine period to prevent spreading the disease.

Where can I find more information on COVID variants and breakthrough cases in Washington state?

The Washington State Department of Health produces weekly reports on both COVID variants and vaccine breakthrough cases. These reports are published online and are updated on Wednesdays.

August 4 COVID Sequencing and Variants in Washington State

July 27 Vaccine Breakthrough Report (will not be updated again until Aug. 11)

DOH COVID-19 Dashboard and Reports (updated frequently by DOH)