Minnesota Department of Health

# Talking Points: Vaccine Breakthrough Cases and Data

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## COVID-19 vaccine breakthrough data

* Based on available data, COVID-19 vaccine breakthrough cases remain uncommon. According to MDH case and vaccination data, less than 0.25% of people who were fully vaccinated, meaning 14 days since their final dose, later became infected with the virus.
  + In other words, 99.75% of people fully vaccinated have not gotten COVID-19.
* COVID-19 hospitalizations and deaths among people who were fully vaccinated are even less common with 0.02% of people who were fully vaccinated being hospitalized and 0.002% of them dying of COVID-19.
  + NOTE: Vaccine breakthrough data is updated weekly on Mondays at [COVID-19 Vaccine Breakthrough Weekly Update (https://www.health.state.mn.us/diseases/coronavirus/stats/vbt.html)](https://www.health.state.mn.us/diseases/coronavirus/stats/vbt.html).
* Vaccination continues to be the best prevention measure against COVID-19. There are many benefits to vaccination, including significantly reduced risk of severe illness and death. Vaccine efficacy studies so far show that all three vaccines protect against the Delta variant strain.
* The vast majority of Minnesotans who are newly diagnosed with COVID-19 or admitted to the hospital are unvaccinated. With the highly-contagious Delta variant circulating in Minnesota, it has never been more important for unvaccinated Minnesotans to get their shot.

## Vaccine breakthrough overview

* COVID-19 vaccines are effective. However, some people who are fully vaccinated will still get a COVID-19 infection if they are exposed to the virus that causes it. These are called “vaccine breakthrough cases.”
* It is normal to see a percentage of vaccinated people still become infected—no vaccine is 100% effective.
* COVID-19 is still present and circulating in communities. How much disease there is will depend upon the vaccination rate and case rate in the area.
* Vaccination can make illness less severe in people who get vaccinated but still get infected. Fully vaccinated people are much less likely to be hospitalized or die than people with similar risk factors who are not vaccinated.
* The proportion of vaccine breakthrough cases we see may change over time. It may even increase. This does not mean the vaccines aren’t working.
* It’s important to remember that vaccine breakthrough is not a measure of vaccine efficacy - it is not a clinical trial or randomized study with equal representation of all age groups and co-morbidities - it is simply an indicator of the progression of disease in relationship to vaccination rates and other factors.
* There are a few reasons we may see more vaccine breakthrough cases:
  + As more people are vaccinated while disease is still circulating—especially when a lot of disease is circulating, more of the cases we identify will occur among vaccinated people. There will always be people for whom the vaccine could not fully protect them from disease.
  + Behaviors and interactions with others can expose you to more or less disease virus depending on what is currently circulating in your community, vaccination rates, and the behaviors and choices of the people with whom you interact.
    - Vaccines are the best tool in our prevention toolbox. However, it is important to continue to use other tools for best protection, including other layers of protection such as masking, frequent handwashing, and keeping physical distance from others.
    - It’s like trying to keep dry in the rain. An umbrella helps, but an umbrella plus a raincoat works better – especially when it start to rain hard.
  + New and emerging variations in the virus that causes COVID-19 can alter the transmission rates and other factors that affect your likelihood to become infected. Vaccine breakthrough infections can give additional, ongoing information that contributes to what we know about disease and what is currently circulating in various communities.

## Vaccine breakthrough data definitions

* A vaccine breakthrough case of COVID-19 is defined as a person who tests positive 14 or more days after their final dose of vaccine, and the person has not previously tested positive for COVID-19.
* We identify COVID-19 vaccine breakthrough cases by matching Minnesota case records (people who test positive for COVID-19) with Minnesota vaccination records. We also receive and follow up on reports from health care providers, long term care, and corrections.
* Once dates are reported, calculations are verified to determine if a case meets the definition for vaccine breakthrough. Vaccination information for cases (including potential vaccine breakthrough cases) will continue to be updated as staff time and technology allow, to capture updates submitted to MIIC or the MEDSS case database.
* We are tracking and monitoring COVID-19 vaccine breakthrough cases to better understand what is happening in Minnesota and look at trends.

All data are preliminary and may change as more information is received.