

THE CHANGING COVID-19 LANDSCAPE

DELTA VARIANT, BREAKTHROUGH INFECTIONS, AND THE CONTINUED IMPORTANCE OF VACCINATION AND MITIGATION MEASURES

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Variants are the result of mutations and can change the characteristics of a virus. These changes can make a virus more transmissible and/or deadly. Our best strategy to combat these changes and protect people from dying or suffering devastating long-term effects is to prevent infections and transmission, lessening the chances that variants will continue to emerge.

All viruses mutate and change naturally. When mutations fundamentally change the characteristics of a virus (its structure or behavior), we classify them as variants.

Just like with other viruses, SARS CoV-2—the virus that causes COVID-19—is constantly mutating. Experts have identified a number of distinct variants since the beginning of the pandemic, and it is likely that more will emerge. Every time a virus is passed on to another person, mutations can occur that may make the virus more transmissible and/or deadly.

The Delta variant is now the dominant COVID-19 variant in the U.S. It is spreading rapidly, especially in areas with low vaccination rates. The Delta variant is more transmissible than any other COVID-19 variant we've seen, meaning it can spread more easily from person to person.

We're still learning about the Delta variant, but it may also be more deadly and dangerous to those who are infected than previous variants. It appears to be more likely to lead to hospitalization, oxygen requirements, and death compared to previously observed strains of the virus, especially among unvaccinated people.

As long as transmission of the Delta variant is occurring there is higher potential not only of severe outcomes (including death, severe illness or disability, long-term cognitive effects, etc.) as the COVID-19 virus spreads through the population, but also for new variants to emerge that challenge our ability to respond effectively. Decreasing spread is key to preventing opportunities for new variants to develop and take hold.

COVID-19 vaccines are primarily intended to lower your risk of severe illness and death from the virus; they continue to do this very well. No vaccine is perfect, and some breakthrough cases are expected. The Delta variant is causing more breakthrough cases than other versions of the virus. However, the vast majority of these cases are either asymptomatic or mild. Unvaccinated people continue to be at significant risk of serious illness or death.

Currently, the majority of COVID-19 cases and the overwhelming majority of COVID-19 hospitalizations and deaths are among those who are not vaccinated. The available vaccines are working exceptionally well at preventing severe outcomes.

Breakthrough cases do not mean the vaccine is not working. Breakthrough cases are expected, and will account for a larger proportion of total cases over time as more people around the country become vaccinated, simply as a result of percentages. Data show that the available vaccines are especially effective against symptomatic infection, hospitalization, and death. As vaccine effectiveness is somewhat lower among certain more susceptible populations, breakthrough cases will likely be most common in congregate settings (such as nursing homes and correctional facilities) and among those with less effective immune responses (including the elderly and immunocompromised).

This showcases the importance of instituting additional measures (e.g., masking, social distancing, etc.) to protect these groups in particular.

We have tools to fight back, but we must use them—not just in select places, but in all communities across the country. Vaccination remains the best protection against the Delta variant, and offers the clearest path to save lives and emerge from this pandemic.

Vaccination provides direct protection to individuals who are vaccinated, and vaccination also provides indirect protection by reducing transmission to those who are unvaccinated (such as young children who are not yet eligible) or who have less effective immune responses (like the elderly and immunocompromised). Vaccination is recommended for all who are eligible, regardless of prior infection status.

We are still learning about how the virus—and the Delta variant in particular—spreads within communities. Vaccinated people are much less likely to get infected with COVID-19, which means they are also much less likely to infect other people. However, emerging data indicate that vaccinated people who become infected via Delta variant breakthroughs, even if they are not sick, may be able to transmit the virus to others. The approved vaccines are very effective, but we need to re-implement other measures to protect those most at risk of infection and severe outcomes.

We must recommit to proven mitigation measures—including masking, social distancing, testing, and contact tracing—amidst a changing pandemic and insufficient vaccination rates. The CDC has recently updated its guidance to reflect that reality and better protect people, recommending masking regardless of vaccination status.

This summer surge in new cases further necessitates the urgent need for widespread vaccination campaigns—as vaccination rates are currently too low to curb transmission in much of the country—as well as a renewed commitment to proven mitigation measures: masking, social distancing, testing, contact tracing, supportive quarantine and isolation policies, avoiding crowded indoor areas, etc.

The CDC and public health departments around the country are rapidly updating their guidance to respond to this changing landscape and insufficient vaccination rates. The CDC now recommends masking indoors for anyone – regardless of vaccination status – living in areas of substantial or high spread, which currently describes the majority of the country. Those older than 65, with a compromised immune system or a chronic disease, or living with people who fit into one of these categories, may also want to consider masking indoors, regardless of local transmission. Getting COVID-19 while outdoors is very unlikely in most scenarios, but if in crowded spaces, people may want to consider wearing a mask. County transmission levels can be found [here](#).

The ideas presented in this document reflect the latest public health thinking and scientific evidence as of August 2021. You are advised that the COVID-19 vaccine landscape remains highly fluid, and it is your responsibility to ensure that decisions are made based on the most up-to-date information available. Partners In Health does not provide medical advice, diagnosis or treatment in the United States. Always seek the advice of a physician or other qualified health care provider with any questions regarding a medical condition. The information, including but not limited to, text, graphics, images and other material contained in this document, are intended for informational purposes only.