



August 10, 2021

Dear colleagues,

The COVID-19 pandemic continues to evolve and the landscape has altered significantly with the Delta variant (B.1.617.2). From June 2021 to July 2021, the Yuba-Sutter region saw a **quadrupling** of our COVID-19 daily case counts and test positivity. This is mirrored also by a very large increase in COVID-19 hospitalized cases. We have also confirmed several deaths recently and likely can expect to see more deaths locally due to COVID-19 in the near future.

Why is the Delta variant such a game changer?

- The Delta variant is **more contagious**. It is 200% more transmissible than the wild-type strain and 100% more transmissible than the Alpha variant (B.117). The R0 for Alpha is approximately 2.5 and R0 for Delta is 5.
- The Delta variant is leading to more severe illnesses compared to prior COVID-19 cases infected with the wild-type strain or other variants. Data from other countries is showing that when infected with the Delta variant, infected persons have a **much higher viral load** leading to more severe illness than persons infected with previous COVID-19 strains. Those infected with the Delta variant have higher odds of hospitalization, ICU admission, and death. This is especially true for Delta infected cases who are unvaccinated.
- Natural immunity is not as protective against reinfection in this current climate of the dominant Delta variant. A recent CDC's MMWR on August 6, 2021 noted among Kentucky residents with previous COVID-19, those who were unvaccinated were **2.34 times more likely** to get reinfected compared to those got fully vaccinated after their COVID-19 infection. **These data show that being fully vaccinated provides better protection than natural immunity alone.**

What about breakthrough cases among fully vaccinated individuals?

- We are seeing an overall lower vaccine effectiveness against the Delta variant compared to the Alpha variant. **However, being fully vaccinated is still highly protective against severe illness, hospitalization, and death due to COVID-19 even with the Delta variant.** Recently the CDC showed data from Israel that indicates lower vaccine efficacy in the mid-60% for infection and symptomatic disease due to the Delta variant, but continued high vaccine protection for hospitalization and severe illness (low to mid-90%) with cases due the Delta variant.
- No vaccine is 100% protective. COVID-19 infection risk is along a continuum with the highest risk among the unvaccinated and the lowest risk (not perfect though) among those who are fully vaccinated and healthy.
- We are seeing breakthrough cases in fully vaccinated individuals but it is not out of the realm of expectations. Our breakthrough case rate for the Yuba-Sutter region is 0.3-0.4% currently, tracking well with the State's report of 0.2% breakthrough case rate statewide. This affirms that the rate of breakthrough infections is very low and rare.
- When a fully vaccinated person is infected with the Delta variant they have the potential to spread the virus similar to an unvaccinated person infected with the Delta variant (mean cycle threshold is 21 for both unvaccinated and vaccinated). However, vaccinated people appear to be infectious for a **shorter** period of time.

The totality of the above updated scientific knowledge about COVID-19 has led the CDC to update its guidance for fully vaccinated individuals on July 27, 2021. Namely, the guidance recommends that fully vaccinated individuals restart wearing masks in **indoor public settings** if their community is in the substantial or high transmission categories. Both Yuba County and Sutter County, in addition to 95% of California fall within this determination. Only July 28, 2021, the California Department of Public Health (CDPH) issued updated masking recommendations for indoor public settings to align with the CDC.

In addition, fully vaccinated persons should get tested 3-5 days **after** exposure to a COVID-19 positive case, regardless if they remain asymptomatic. The current guidance allows fully vaccinated persons exposed as close contacts who remain asymptomatic to not have to quarantine but it is important that they wear a mask indoors for the entirety of the 14 days post-exposure.

What about booster doses?

As of right now, the Food and Drug Administration (FDA) has not indicated a consideration for booster doses for the general population. The FDA and CDC are currently reviewing data for booster doses in immunocompromised persons.

When will the vaccine be formally approved?

The FDA has indicated that they plan to consider formal approval for the Pfizer vaccine by early September 2021. Unclear timeline as of yet regarding the Moderna vaccine and Janssen vaccine.

I hear there have been orders from the State recently?

On July 26, 2021, the State Public Health Officer issued an order requiring COVID-19 vaccine verification (self-attestation not acceptable) for all workers in healthcare settings and high-risk congregant settings. If not fully vaccinated, then screening testing must be done once to twice weekly depending on the specific facility setting. Full compliance is set for no later than August 23, 2021.

<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Order-of-the-State-Public-Health-Officer-Unvaccinated-Workers-In-High-Risk-Settings.aspx>

<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Unvaccinated-Workers-in-High-Risk-Settings-State-Public-Health-Order-FAQ.aspx>

Then on August 5, 2021, the State Public Health Officer issued another order requiring COVID-19 vaccination for all workers in healthcare settings no later than September 30, 2021. There are exemptions for medical contraindications or bona fide religious beliefs. If a worker is approved for an exemption, he/she must undergo once to twice weekly testing depending on the specific healthcare setting.

<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Order-of-the-State-Public-Health-Officer-Health-Care-Worker-Vaccine-Requirement.aspx>

<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/FAQ-Health-Care-Worker-Vaccine-Requirement.aspx>

We need your help. Vaccination is the key to move us out of this urgent, critical stress on our healthcare system and to reduce the risk of illnesses, hospitalizations and deaths due to COVID-19.

Patients trust their personal doctors and medical providers the most. Please help us in engaging with your patients about COVID-19 vaccination and encourage timely vaccination for all those who are currently eligible.

If you all need assistance with setting up your clinic systems for COVID-19 vaccination, please note that there is grant funding available to assist:

<http://www.phcdocs.org/Programs/CalVaxGrant>

If you would like a more targeted presentation from me for you and your staff regarding COVID-19 related topics, I would be happy to facilitate this. Please feel free to contact me directly.

Thank you for all your hard work ensuring the health and well-being of Yuba County and Sutter County residents.

In service,

A handwritten signature in black ink, appearing to read 'Phuong Luu', with a stylized flourish at the end.

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