

UNIVERSITY OF CALIFORNIA HEALTH

October 8, 2021 Update
COVID-19 AND 'CORONAVIRUS' UPDATES

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THE IMPACT ON OUR HEALTH SYSTEM

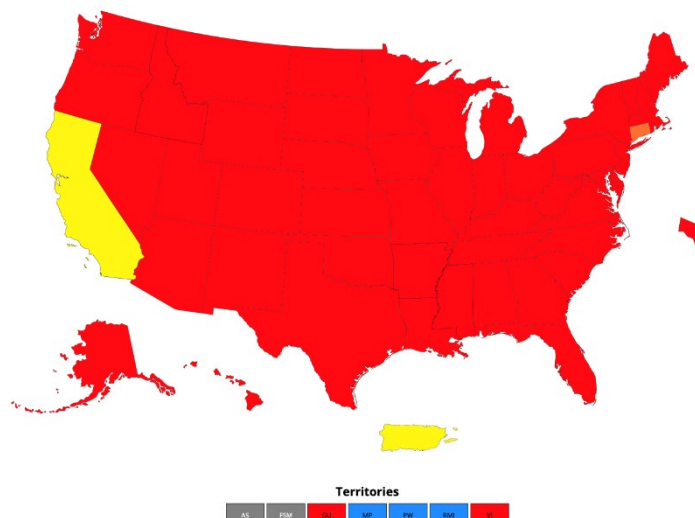
This is the 32nd update for Regents regarding the SARS-CoV-2 virus pandemic and its impact on the University's health and academic enterprise. Given the significant change in conditions since my last update in July, I am providing this overview.

Today, nearly two years since the world became aware of the novel coronavirus, we are beginning to see more signs for hope in the United States. The delta surge that swept the country this summer is in decline, particularly in California. Vaccination mandates have been implemented across workplaces, the government and schools and have helped boost the [national rate of full vaccination](#) to 66% of eligible people as of October 8. The rate is even higher in [California at 71% of eligible people vaccinated](#) as of October 8.

The UC System has seen exceptional compliance with the vaccination mandate with 98% of students and 95% of employees meeting the requirements of the policy as of October 8. [The White House recognized the University of California mandate as an exemplar in a recent report resulting in hundreds of thousands of vaccinees across our system.](#)

Because of our high vaccine rates and adherence to public health measures, the state of California has recently been one of the best in the nation for control of transmission.

Level of Community Transmission of COVID-19, by State/Territory



Source: Centers for Disease Control and Prevention

Adding to the optimistic outlook, [Merck announced on October 1 that it would seek emergency use authorization](#) for its oral antiviral drug molnupiravir, which demonstrated a 50% reduction in risk of hospitalization or death in an interim analysis of its phase III clinical trial. UCH teams continue to lead the way in the search for treatments as both UC Davis Health and UCLA Health have been sites for this trial. All of us in the medical community anxiously await more detailed data on the drug, and early reports are encouraging. Plus, there are additional medicines in the clinical trial pipeline that could prove promising for COVID-19. Today, our best options for COVID-19

treatment must be delivered intravenously, so having effective oral options will be a game changer.

To be clear, while we see the light ahead, the virus continues to devastate many communities, and our tragic losses continue. In the United States, we have had more than 700,000 deaths from COVID-19, a level previously unthinkable. This surpasses the 675,000 deaths from the 1918 Spanish flu, which had been the greatest pandemic recorded in U.S. history up until this time. We have also seen 140,000 children in the United State lose one or both parents during the pandemic. We must all work toward ending this pandemic by continuing to encourage vaccination for everyone who is able, while ensuring easy access for all, especially people in our most vulnerable communities.

COVID-19 BY THE NUMBERS

In California and the nation, key disease indicators are still elevated compared to early summer but are now on a downward trend.

As of October 8, statewide, the daily case average is 5,438 and falling. The state is still averaging 96 deaths per day, which is a tremendous loss, but that rate is headed down. Test positivity is 2.5% as of October 8 and is falling.

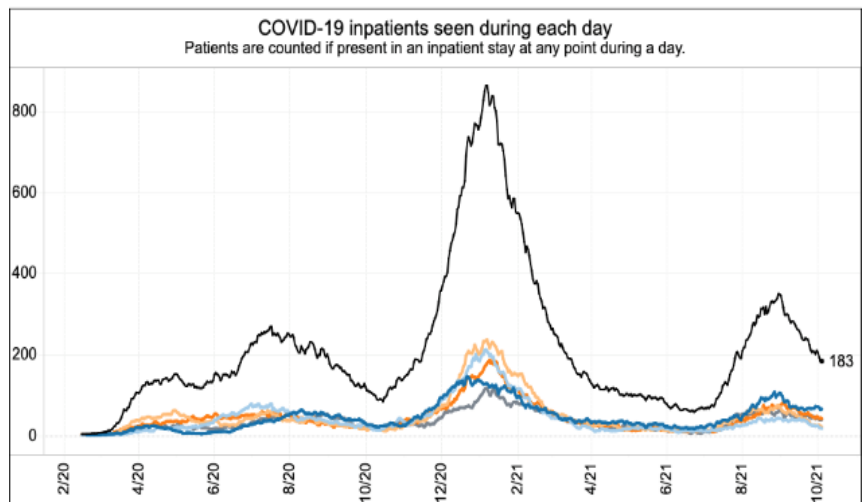
Among people 12 years of age or older in California, 71% have been fully vaccinated and an additional 8% have been partially vaccinated, as of October 8. Immunization is critical as vaccines continue to show strong efficacy against severe disease, hospitalization, and death.



Source: [California Department of Public Health](#)

COVID-19 figures from our academic health centers across the state also show a pattern. As the chart indicates, inpatient cases at our academic health centers have fallen below 200 per day for the first time since July.

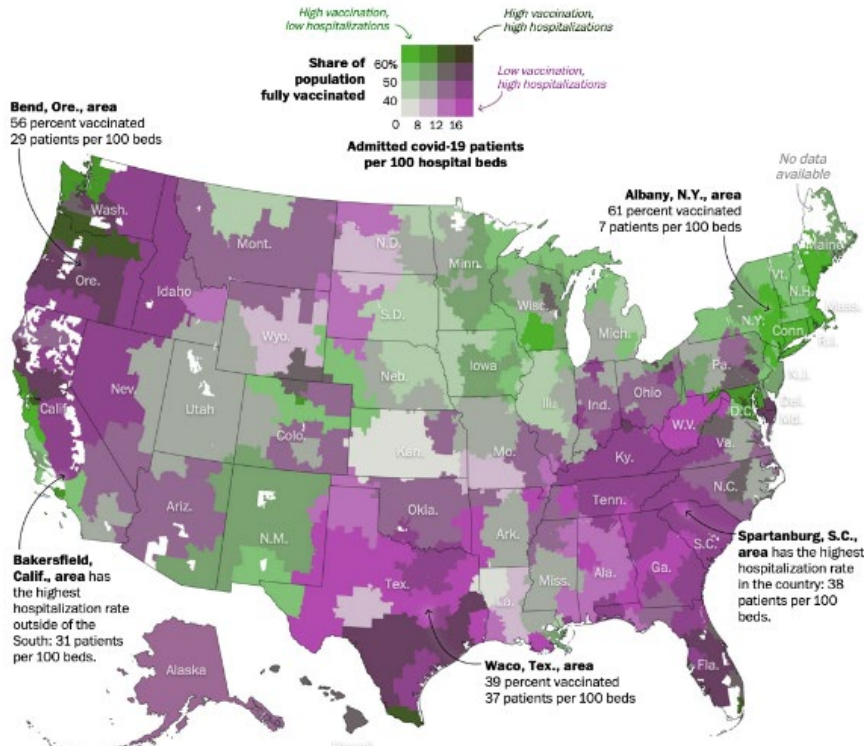
Similar trends are happening nationally, with declines of 13.3% in the 7-day COVID-19 case average, 14.9% in the 7-day hospitalization average and 3.3% in the 7-day average number of deaths, according to the [Centers for Disease Control and Prevention's \(CDC\) October 1 update](#).



Source: UCH Center for Data-driven Insights, as of 10/4/21

THE POWER OF VACCINATION

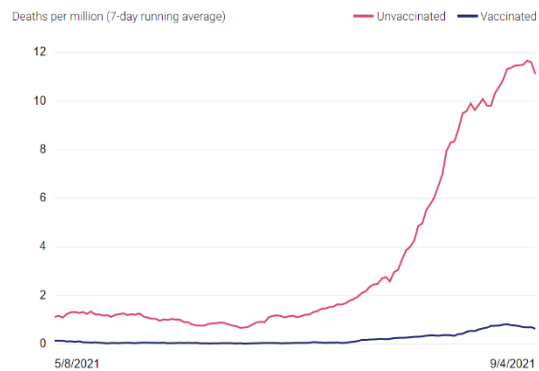
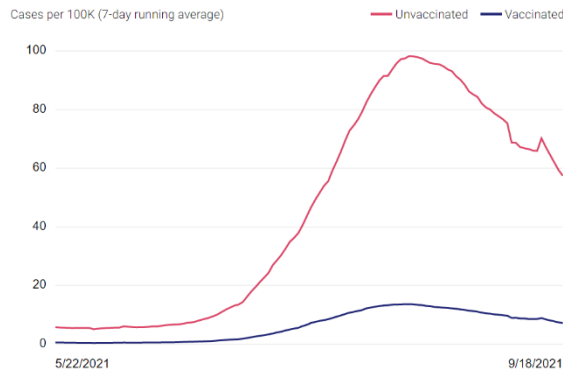
Hospitalizations and cases depend on the immunization status of the people in our communities. The map below shows vaccination and hospitalization rates by county in the United States. The areas with the dark purple are suffering the most, due to the low



immunization rates and high number of hospitalizations. The majority of these locations are in the Southeastern United States, but there are some counties in the Southeastern United States, California and the Northwest. Notably, Bakersfield is the area with the highest hospitalization rate outside of the Southeastern United States. Hospitals in the Western region, including those in Alaska and Idaho have resorted to following crisis standards of care.

Source: [Washington Post](#)

Analysis from California Department of Public Health (CDPH) also makes clear the impact of vaccination. [CDPH estimates](#) that between September 12-18, unvaccinated people were 8.1 times more likely to get COVID-19 than fully vaccinated people. The same holds true for hospitalizations. The rate of death from COVID-19 was even more severe for the unvaccinated. From August 29 to September 4, [CDPH data shows](#) unvaccinated people were **17.5 times** more likely to die from COVID-19 than fully vaccinated people.



Vaccination in groups of people with certain conditions and risk profiles is proving especially important. Our campuses have been leaders in developing the scientific evidence for vaccination, including in special populations.

The CDC is emphasizing the importance of COVID-19 vaccines for people who are pregnant in part because of the research coming from the UC system. In August, [a study](#) from UCSF, UC Berkeley, UC Davis and UC San Diego found that COVID-19 infection during pregnancy is strongly associated with an increase pre-term birth. Similarly, [research results](#) from UC Irvine show that pregnant individuals infected with COVID-19 have worse outcomes than those who are not, including pre-term delivery, ICU admission, and even death. The CDC issued an alert to pregnant women and health providers strongly encouraging vaccination to prevent mortality in themselves and pre-term delivery and still birth of their babies.

UC researchers have also contributed data regarding vaccination of health care workers. Investigators at UC San Diego Health published evidence of waning immunity for vaccinated health care workers in [a letter to New England Journal of Medicine](#) in September.

COVID-19 VACCINATION BOOSTERS AND NEW RECOMMENDATIONS

On September 24, CDC issued recommendations for booster shots of Pfizer-BioNTech's COVID-19 vaccine. Data from UC research, along with other studies, were used by the U.S. Food and Drug

Administration (FDA) and CDC to guide these recommendations.

In addition to guidelines for people aged 65 and over and additional individuals with underlying medical conditions, CDC's guidance allows for Pfizer-BioNTech COVID-19 vaccine boosters for people ages 18-64 who are essential workers,

including those in health care. This population may receive a booster shot if they are at least 6 months past their primary series of the Pfizer-BioNTech vaccine. Across UCH, we advocated strongly for these recommendations, and we were prepared to implement them as soon as they were released. UCH locations have been immunizing eligible people with booster shots since September 24.

The FDA has scheduled additional meetings October 14-15 to evaluate boosters for individuals who received either the Moderna or J&J vaccines. There will likely be additional guidance soon for these groups to boost their immunity. Another critical group for vaccination is children between the ages of 5-11. Later this month, we expect to see information on primary vaccination with the Pfizer-BioNTech product for this group of children. Data has been

CDC Recommendations September 24, 2021

- People 65 years and older and residents in long-term care settings **should** receive a booster shot of Pfizer-BioNTech's COVID-19 vaccine at least 6 months after their Pfizer-BioNTech primary series
- People aged 50-64 years with underlying medical conditions **should** receive a booster shot of Pfizer-BioNTech's COVID-19 vaccine at least 6 months after their Pfizer-BioNTech primary series
- People aged 18-49 years with underlying medical conditions **may** receive a booster shot of Pfizer-BioNTech's COVID-19 vaccine at least 6 months after their Pfizer-BioNTech primary series, based on their individual benefits and risks
- People aged 18-64 years who are at increased risk for COVID-19 exposure and transmission because of occupational or institutional setting **may** receive a booster shot of Pfizer-BioNTech's COVID-19 vaccine at least 6 months after their Pfizer-BioNTech primary series, based on their individual benefits and risks

submitted by Pfizer to the FDA, and the FDA is expected to meet on October 26 and provide guidance hopefully before Halloween.

LOOKING AHEAD

If improvements in conditions continue, it is realistic to begin planning for a shift from a pandemic to an endemic state in the United States. In anticipation of that possibility, I share [this paper which appears in the journal *Immunity*](#) and provides important background.

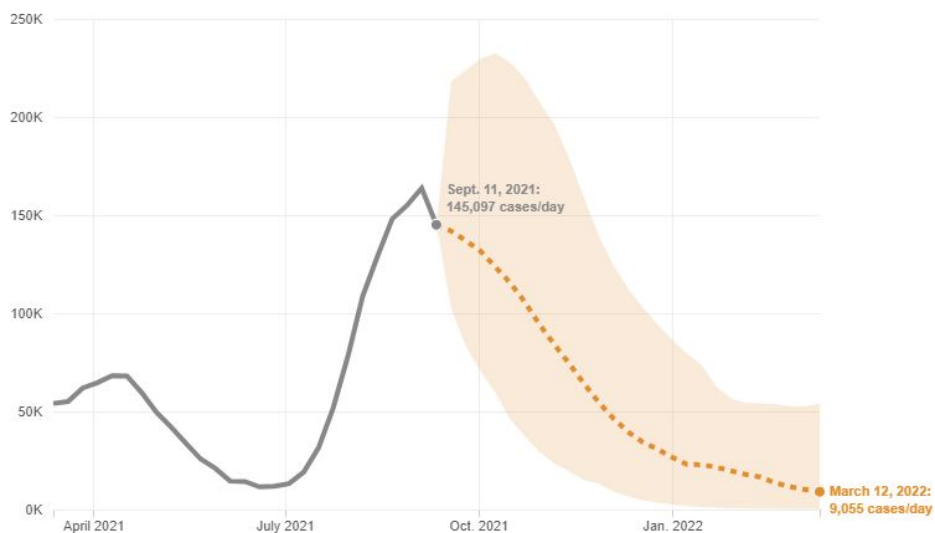
This evolution depends on the immunity of our population. We learned more about immunity in the United States through [a CDC-led study](#) of individuals who gave blood donations between July 2020 and May 2021. UCSF provided institutional review board oversight of the study, which included more than 1 million blood donors across the United States. Results demonstrated that by May 2021, SARS-CoV2 antibodies from vaccination (~63%) or infection (~20%) were present in an estimated 83% of Americans. This level of immunity was present prior to the delta surge, which is estimated to have infected another 11% or 36 million people in the US. This level of immunity should provide protection from the crushing surges experienced earlier in the pandemic, though outbreaks will still occur in areas with low vaccination rates.

Using what is known about immunity and other factors, the [COVID-19 Scenario Modeling Hub](#) created the graph below combining multiple different models to create an outlook on COVID-19 cases. Their projection shows a decline in cases from approximately 145,000 per day in September 2021 to 9,000 cases per day by March 2022. This hopeful estimate depends on our behavior, especially working to keep immunity high by immunizing all who have not yet received

Infections Projected To Drop To Around 9,000 Per Day By March

This scenario assumes childhood vaccinations take off and no new more transmissible variants emerge.

■ Historical new cases/day (7-day avg.) ■ Estimated new cases/day ■ Uncertainty interval*



Notes

*There is reasonable confidence that the epidemic trajectory will remain within this range if the scenario assumptions hold, taking into account both the uncertainty of individual models and differences between models.

Source: [COVID-19 Scenario Modeling Hub](#)

Credit: [Connie Hanzhang Jin/NPR](#)

a vaccine in this country and around the globe, including pregnant individuals and children, as well as giving boosters when needed.

IN CLOSING

I am hopeful about a future in which we are able to manage the impact of the virus and emerge from these crisis pandemic conditions.

To move ahead, in addition to building community immunity, we will need to build resilience. It is important for us to take time to grieve the losses we have endured and to remember the sacrifices of our health care providers, other front-line workers, and families. I especially want to give thanks for our dedicated, compassionate teams at University of California Health who have and continue to be essential to ensuring the health of our state and our nation.



Visitors sit among flags that are part of artist Suzanne Brennan Firstenberg's "In America: Remember," a temporary art installation to commemorate Americans who have died of COVID-19, on the National Mall on Sept. 21. Credit: Patrick Semansky/AP

Vaccination, preventative public health measures and ongoing infectious disease research are our best protections against a return to the darkest days of the pandemic and new threats that may be ahead. Life will never be entirely the same as it was before the pandemic. At UCH, we are working to build health security and to eliminate health disparities, as we build a more equitable society.

Fiat Lux.

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