THE IMPACT ON OUR HEALTH SYSTEM
This is the 29th update for Regents regarding the SARS-CoV-2 virus pandemic and its impact on the University’s health and academic enterprise.

It has been one year since these updates began. We begin March 2021 with a different perspective than March 2020. We have a sense of optimism due to the recent decline in our COVID-19 inpatient census and Emergency Use Approval (EUA) of a third vaccine against SARS-CoV2. Our optimism, however, is tempered by the appearance of new variants in the United States and California and a sense of déjà vu as restrictions designed to limit transmission are lifted.

COVID-19 BY THE NUMBERS
Since our February 5 update, more than 100,000 Americans have died from COVID-19, bringing the cumulative death toll to 517,224 as of March 4, based on data from the Centers for Disease Control and Prevention (CDC). The number of deaths is so large that we risk becoming numb to the human toll, which continues to grow at an average rate of 2,000 deaths per day.

The somber half-million milestone was commemorated in a ceremony at the White House with 500 candles flickering in the evening breeze.

"The tiny things that you miss the most.
That scent when you open the closet.
That park you go by that you used to stroll in.
That movie theater where you met.
The morning coffee you shared together."
- President Biden
Feb. 22 White House Ceremony

In California, the rolling 14-day positivity rate has dropped to 2.5% - a remarkable decline from the 14% peak reached on January 8 - and hospitalizations statewide among all hospitals have dropped from a January 11 high of 22,665 to 4,714 as of March 4, according to data from the California Department of Public Health (CDPH).

These dramatic trends are encouraging while also serving as a reminder on how quickly trends can be reversed. Even in this improved environment, approximately 200-400 Californians are dying each day and the cumulative toll has reached 53,448, according to March 4 CDPH data.
As counties move from CDPH's purple tier to the less-restrictive red tier, certain indoor activities can resume at reduced occupancy.

As health care providers, we are concerned that if the public relaxes its adherence to wearing masks, avoiding crowds and other public health measures before more have been vaccinated, we risk a fourth surge.

**HOSPITALIZATIONS SUBSIDE AFTER THIRD SURGE**

The rise and fall of the three surges to date are apparent in the chart showing patients admitted with confirmed COVID-19. The pace of decline is slowing as it approaches the current level of 239 inpatients - a level similar to the summer surge.

Similarly, the positivity rates among UCH patients have decreased dramatically, ranging from a low of 0.30% at UC San Diego Health to a high of 2.82% at UC Davis Health, with a systemwide 7-day average of 1.71%.

![COVID-19 inpatients seen during each day chart](chart.png)

Source: UCH Data Warehouse

**THE VACCINE ROLLOUT**

In the United States, 109,905,530 doses have been distributed and 82,572,848 have been administered, according to CDC data through March 4.

In California, we have received approximately 13 million doses and approximately 10 million have been administered. Of those, 2,420,130 have been in Los Angeles County, one of the most recent hard-hit geographies. A county-by-county count of doses can be seen on the [CDPH Dashboard](https://cdph.ca.gov).
University of California Health (UCH) has administered 5.6% of all doses that have gone into the arms of Californians. As of March 4, we have administered more than 537,000 doses to nearly 360,000 individuals.

Moving forward, eligibility for vaccination broadens again on March 15, when healthcare providers can use their clinical judgment to vaccinate individuals aged 16-64 deemed to be at the very highest risk of serious illness from COVID-19 due to other conditions, defined as:

- Cancer, current with a weakened immune system
- Chronic kidney disease, stage 4 or above
- Chronic pulmonary disease, oxygen-dependent
- Down syndrome
- Solid-organ transplant, leading to a weakened immune system
- Pregnancy
- Sickle cell disease
- Heart conditions, such as heart failure, coronary artery disease, or cardiomyopathies (but not hypertension)
- Severe obesity (Body Mass Index ≥ 40 kg/m²)
- Type 2 diabetes mellitus with hemoglobin A1c level greater than 7.5%

Alternatively, individuals outside of these conditions are eligible if, as a result of a developmental or other severe high-risk disability one or more of the following applies:

- The individual is likely to develop severe life-threatening illness or death from COVID-19 infection
- Acquiring COVID-19 will limit the individual’s ability to receive ongoing care or services vital to their well-being and survival
- Providing adequate and timely COVID care will be particularly challenging because of the individual’s disability

Also moving forward, the state is focusing on educators and health equity needs. Ten percent of doses now are reserved for educators to facilitate the reopening of more schools, and 40% will be reserved for individuals who live in the 400 lowest income zip codes, as determined by the California Healthy Places Index (HPI).

THE JOHNSON & JOHNSON VACCINE RECEIVES EUA APPROVAL

As we approach the one-year anniversary of the statewide stay-at-home order (March 19), it is remarkable that science has produced three safe and effective vaccines, which have now been approved in the United States for emergency use.

On February 26, the Vaccines and Related Biological Products Advisory Committee (VRBPAC) of the Food and Drug Administration (FDA) unanimously recommended approval of the COVID-19 vaccine made by the Janssen subsidiary of Johnson & Johnson. Acting FDA Commissioner Janet Woodcock, M.D., issued approval the following day. The CDC’s Advisory Committee on Immunization Practices (ACIP) also reviewed the data and recommended its guidance for use in persons 18 years of age or above. CDC Director Rochelle P. Walensky, M.D., accepted the ACIP recommendation on February 28.

California’s Western States Scientific Safety Review Workgroup, established to provide additional independent analysis, also reviewed the vaccine data and recommended its use on March 2.
These approvals set the stage for 380,000 doses of the J&J vaccine flowing to California over the coming week, including 5,400 doses that will be allocated to UCH. By early April, J&J expects to expand its production capacity further.

Even more encouraging - and emblematic of the type of collaborations occurring to fight this pandemic - Merck, a competitor and rival of J&J, agreed to use two of its plants to produce the J&J vaccine.

In clinical trials, the J&J vaccine was approximately 77% effective in preventing severe COVID-19 occurring at least 14 days after vaccination and 85% effective in preventing severe/critical COVID-19 occurring at least 28 days after vaccination. Like the other vaccines, there were no COVID-19 attributable deaths in the clinical trial populations that received the vaccine.

This third vaccine differs from the earlier two, which used a new mRNA technique. The J&J vaccine uses an adenovirus vector to deliver a double-stranded DNA sequence that triggers cells into making spike proteins that your body's immune system relies on to produce antibodies to the perceived threat. An overview of the process can be seen here.

The J&J vaccine is currently a one-dose shot and does not have the very cold temperature requirements of the others. A standard refrigerator can store it safely for up to three months. This simple handling requirement vastly expands the number of locations that can be activated. Primary care practices, pharmacies, Federally Qualified Health Centers (FQHCs) and mass vaccination sites will be able to inoculate Californians each week.

As I have noted previously, we are in a race between the pace of vaccinations and the spread of the virus. The vaccines are the strong wind at our back, and relaxed behaviors are the rocks on our path.

All viruses mutate over time. With SARS-CoV-2, at least five variants have been detected in multiple countries. The three EUA-approved vaccines in the United States have demonstrated effectiveness with these variants, although at slightly lower levels than the original virus.

Vaccine manufacturers will continue to test against emerging variants and may result in 'booster' shots coming online in the future.

**STATE OVERHAULS VACCINE DISTRIBUTION AND APPOINTMENT SCHEDULING**

Effective March 1, the state implemented significant changes to vaccine distribution and vaccination appointment scheduling. The changes are intended to simplify county-by-county rules that left many consumers confused and streamline appointment scheduling via one multilingual online and telephone platform.

The state has contracted with Blue Shield of California to be the third-party administrator (TPA) charged with analyzing populations, usage trends and equity goals to determine how doses will be distributed each week. The decisions are to be made in accordance with overall guidance from CDPH.
The process of scheduling vaccinations also will change under the revised program. The proliferation of scheduling methods will be replaced with MyTurn.CA.gov, which helps screen for eligibility, sends notifications as segments become eligible, and enables the user to pick a location, date and time for vaccination. MyTurn online is available in eight languages. To help bridge the digital divide, MyTurn also includes a call center (833-422-4255) with support available in more than 250 languages.

The change in distribution methodology and rules will drive changes to our plans for broader vaccination efforts. Initially, UCH joined CDPH’s Multi-County Entity program, which provided a flow of vaccines to our academic health centers (AHCs) and gave us the ability to redistribute across our system. Although we will continue to receive doses for eligible patients, we will no longer be able to redistribute within our system. Vaccination sites must be open to all eligible persons, so employer-specific efforts are no longer allowed. Our community-based mass vaccination efforts, which rely on doses from the local public health office, may be reduced as dose allocations to counties fluctuate.

The practical effect is that - in most cases - UC employees who are not in the 1A category will be vaccinated by their personal health care provider, pharmacy, FQHC or at mass vaccination sites operated by state or federal authorities.

While some aspects of the transition to the TPA approach initially caused concern, UCH is committed to continuing our constructive relationship with CDPH, local public health and Blue Shield with a shared goal of vaccinating as many people as possible, as equitably as possible.

We are proud that we are contributing to California’s “Vaccinate all 58” effort. An analysis of vaccines delivered by UCH indicates we have vaccinated people in 55 of 58 California counties.

We will, of course, continue to advocate for our patients and communities and work to meet the needs of the most vulnerable.

Make sure to register on MyTurn.CA.gov for updates about eligibility and vaccine availability.

EMPLOYEE POSITIVITY RATES DECLINE
UCH has been actively testing our health care workers for SARS-CoV-2 since May 2020. Positivity rates have remained low, despite sharp increases in external community positivity rates and community-based transmissions. We now believe vaccine administration to our 1A workforce has contributed to a sharp decrease in workforce positivity rates.
The blue line represents testing volume, and the yellow line indicates the number of positive tests. Our positivity rate stands at 0.37%, representing 48 positive tests out of 12,978 tested over the past 14 days.

**UC VOLUNTEERS SIGN UP TO HELP WHEREVER THEY ARE NEEDED**

The fight against COVID-19 takes many forms, including volunteerism. Nearly 1,500 people have joined our volunteer registry to be called upon to assist with any number of vaccination efforts. This volunteer registry provides another mechanism for students, faculty and staff to contribute as volunteers. When vaccination sites request UC volunteers, we will query the database and provide them with the names and contact information of potential volunteers. The UC location will coordinate volunteer management and logistics.

The state has guidelines about appropriate supervision of student volunteers, when required, and the sites will be responsible for assuring students are adequately supported, oriented and supervised.
Volunteers are needed for both clinical and non-clinical duties such as interviewing patients and conducting pre-vaccine screening, preparing syringes, administering injections, monitoring individuals for reactions after vaccination, supporting clinical staff in all aspects of the vaccination program.

If you are interested in learning more, please email us at COVIDvaccineclinicregistry@ucop.edu

**UC SAN DIEGO PILOTS ‘SAFER AT SCHOOL’ FOR LOCAL GRADE SCHOOLS**

To help schools reduce the risk of COVID-19 outbreaks as they resume in-person instruction, University of California San Diego and the County of San Diego are testing the Safer at School Early Alert system, an evidence-informed program to detect SARS-CoV-2 at schools and childcare centers.

The Safer at School Early Alert system is modeled after UC San Diego’s Return to Learn program, but designed for smaller educational locations. Through daily wastewater and surface monitoring, the program tests for the presence of particles of the coronavirus. Combined with a responsive testing strategy, the aim is to identify children or staff members infected with SARS-CoV-2 before a widespread outbreak occurs.

Ten San Diego County-area grade schools and two childcare centers are participating in this SARS-CoV-2 early detection program.

Guided by scientific evidence and expertise generated by her colleagues who developed Return to Learn, Rebecca Fielding-Miller, Ph.D., MSPH, assistant professor at the Herbert Wertheim School of Public Health and Human Longevity Science at UC San Diego, is leading a team in designing a simple testing model that can be implemented at any school.

Safer at School Early Alert is being piloted in schools located in communities with the highest rates of COVID-19, including San Ysidro, Chula Vista, El Cajon, Southeast San Diego and Vista Grande. These communities primarily serve low-income and immigrant families who have more challenges accessing COVID-19 testing and may have elevated levels of vaccine hesitancy.

The Safer at School Early Alert system includes three elements:

1. Daily collection of wastewater samples to test for shed pieces of the coronavirus;
2. Daily surface testing via a swab on a one-square-foot section of the center of the floor in a classroom, which is where aerosols tend to settle; and,
3. Testing of children and staff who voluntarily consent in response to a positive result from wastewater or surface monitoring.

Read more about this innovative program [here](#) or [watch the video](#).
SOME OF THE HEROES OF THE PANDEMIC
IN CLOSING

The arrival of spring and decline in hospitalizations from the third surge of COVID-19 is a welcome relief for all.

Our frontline health care workers, support teams, researchers and administrators have risen to meet challenge after challenge.

Although it is tempting to view vaccines’ arrival as the end of the pandemic, it is premature to declare Mission Accomplished. We must accelerate the pace of vaccination and recognize that it takes your body two weeks after the final dose to mount an immunological response for maximum protection. My message remains the same: follow all public health guidance, especially guidance to #MaskUp and get vaccinated when it is your turn.

Our collective actions are the difference between the end of the pandemic and a fourth surge.

Carrie L. Byington, MD
Executive Vice President
University of California Health