

# UNIVERSITY OF CALIFORNIA

## HEALTH

February 5, 2021 Update  
COVID-19 AND 'CORONAVIRUS' UPDATES

**CARRIE L. BYINGTON, MD**  
Executive Vice President, University of California Health



### THE IMPACT ON OUR HEALTH SYSTEM

This is the 28th update for Regents regarding the SARS-CoV-2 virus pandemic and its impact on the University's health and academic enterprise.

We begin February with Governor Newsom having lifted regional stay-at-home orders, a new Biden-Harris administration in Washington D.C. and a third vaccine candidate applying for Emergency Use Authorization.

Although the [stay-at-home orders are no longer in place](#), all but four counties in the California – representing 99.9% of the state's population - remain in the purple tier indicating the virus is widespread. The resumption of some activities such as outdoor dining and personal care services comes at a time when several potentially more transmissible variants of SARS-CoV-2 are in circulation. The B.1.1.7. variant previously detected in Southern California has been found in Northern California, including two UC Berkeley students. With this weekend's Super Bowl and the upcoming Lunar New Year celebration, the potential for gatherings that spread the virus remains very high. We must remain prepared for further surges.

On February 3, Governor Newsom and the Biden-Harris administration [announced plans](#) to open two mass vaccination sites, one at the Oakland-Alameda Coliseum and another at California State University, Los Angeles. The Federal Emergency Management Agency (FEMA) and Governor's Office of Emergency Services (CalOES) will run the centers, which are expected to open February 16. The sites are part of a national effort to launch 100 vaccination sites within 100 days.

The Biden-Harris administration is also taking steps to clarify the number of vaccine doses available and create more predictability about the number of doses that will flow to the states each week.

Among the early realizations was that a national stockpile of vaccine does not exist, and the federal government has not been holding second doses. However, vaccine production is increasing and the new administration has pledged to increase the number of doses shipped weekly by 15%. While any increase is welcome news, the

increase falls far short of demand. With the vaccination of UCH workers in Group 1A essentially complete, we have begun reaching out to a limited number of onsite employees at our



**Honoring the more than 400,000 lives lost to COVID-19 thus far in the United States.**

campuses who work in certain fields, and employees and UCH patients who are 65 years of age or older (depending on county). This phase will progress more slowly because of the size of the populations eligible and the constraints on vaccine availability.

During a vaccine advisory committee meeting on January 20, State Epidemiologist Dr. Erica Pan said that at current rates of vaccine availability, it could take 20-22 weeks to vaccinate the 6.2 million Californians who are 65 and older. The state has been receiving ~ 460,000 doses a week, with the allocation for UCH personnel averaging less than 15,000 doses. We continue to work closely with the California Department of Public Health (CDPH) and local public health departments to seek larger allocations of vaccine to increase vaccination rates among the vulnerable 65+ population.

Fortunately, three additional vaccine candidates are approaching the final stage of assessment.

Preliminary results from clinical trials of a vaccine candidate from [Janssen/Johnson & Johnson](#) (J&J) which used an adenoviral vector show 66% efficacy in preventing moderate to severe COVID-19 overall across many geographies. The level of protection was 72% in the United States, 66% in Latin America and 57% in South Africa, where the B.1.351 variant is circulating, 28 days post-vaccination. Although these overall efficacy rates are lower than those of Pfizer/BioNTech and Moderna, the J&J vaccine requires only a single shot and can be kept cool in a standard refrigerator. Importantly, the vaccine candidate was 85% effective in preventing severe disease across all regions studied and demonstrated complete protection against COVID-related hospitalization and death, 28 days post-vaccination. J&J announced on February 4, that they submitted clinical trial data for review and consideration for Emergency Use Authorization (EUA) from the Food and Drug Administration (FDA). The FDA will meet on February 26.

Another candidate from [Novavax](#), (NVX-CoV2373), is a two-dose vaccine currently in Phase 3 clinical trials with a preliminary efficacy rate of 89.3% overall based on data from trials in the United Kingdom, with 60% efficacy in South Africa, where variants from the B.1.351 lineage account for 90% of cases. The vaccine contains a full-length, prefusion spike protein made using Novavax' recombinant nanoparticle technology and a saponin-based adjuvant. Novavax intends to apply for authorization in the United Kingdom prior to the United States.

A third vaccine, from AstraZeneca and Oxford University, which uses a replication deficient chimpanzee adenoviral vector, has received emergency approval in the United Kingdom and the European Union. Clinical trials also demonstrated that up to 12 weeks after getting a first dose of the vaccine, there was a 67% reduction in positive tests among trial participants compared to those given a placebo. In spite of these findings, [questions remain](#) about the design of its clinical trials studies, which will take time to clarify before applying an application for an EUA in the United States can be filed.

### **UC SAN DIEGO HEALTH SETS THE STANDARD FOR MASS VACCINATION SITES**

An outstanding example of community engagement is the [mass vaccination center at Petco Park in San Diego](#), a collaboration between UC San Diego Health and the County of San Diego. The county public health department provided the supply of vaccine while we provided the technology and staff to operate the center. Despite the magnitude of the undertaking, the site was opened in only 6 days - an extraordinary achievement [described in the Journal of the American Medical Association](#) to help others create their own mass vaccination sites. As of today, they have administered more than 100,000 shots. Congratulations to CEO Patty Maysent and CIO Christopher Longhurst, MD, and the entire UCSD Health team on this remarkable

achievement. I had the opportunity to join the team on Martin Luther King Day and will be back on President's Day as a volunteer vaccinator.



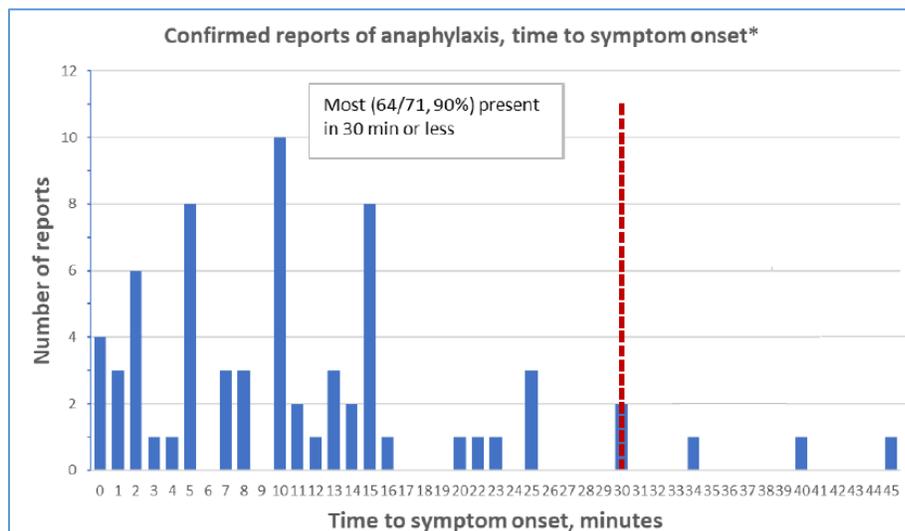
**Left: People remain in their cars for vaccination. Right: It felt great to join the amazing UC San Diego Health team to help vaccinate health care workers from across the region.**

On Monday, UC San Diego Health will open a new vaccination site at the Recreation, Intramural and Athletic Complex (RIMAC) on the campus. The site will primarily serve vaccination-eligible UC San Diego Health patients as well as UC San Diego faculty and staff.

### HOW COMMON IS ANAPHYLAXIS FOLLOWING COVID VACCINE?

It's always a good idea to consider the potential side-effects of any medication or vaccine before taking it. The good news is that the Pfizer/BioNTech and Moderna vaccines have extremely low rates of anaphylaxis, the most severe form of allergy. On January 27, the Vaccine Safety Team from the Advisory Committee on Immunization Practices (ACIP), part of National Center for Immunization & Respiratory Diseases within the Centers for Disease Control and Prevention (CDC), reported all known instances of anaphylaxis since immunizations began.

Vaccine	Doses Administered	Anaphylaxis	Rate per Million	Percent	Gender
<b>Pfizer/BioNTech</b>	9,943,247	50	5 per million	0.0005%	94% Female
<b>Moderna</b>	7,581,429	21	2.8 per million	0.00027%	100% Female



When allergic reactions occur, 90% of instances are within 30 minutes of vaccination.

Interestingly, 94-100% of the reactions occur in women.

These data further support the safety of both vaccines under EUA in the U.S., and I encourage everyone to be vaccinated when eligible.

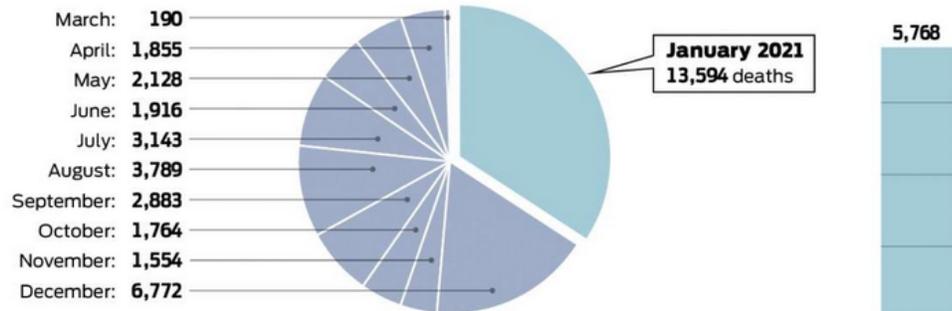
## COVID-19 BY THE NUMBERS

Nationally, the number of laboratory-confirmed cases has reached 26.4 million, and a cumulative death toll of 449,020, according to data from the Centers for Disease Control and Prevention (CDC). In California, the number of cases exceeds 3.3 million and the death toll stands at 43,024 as of February 4 based on data from CDPH. More than a third of the deaths in California occurred in January - making it the deadliest month of the pandemic so far.

### Deadly month for virus

Coronavirus-related deaths in California approached 40,000 Friday, with more than one-third of those being reported in January.

#### 2020 monthly deaths (25,994)



#### Counties with the most January deaths (as of Jan. 29)

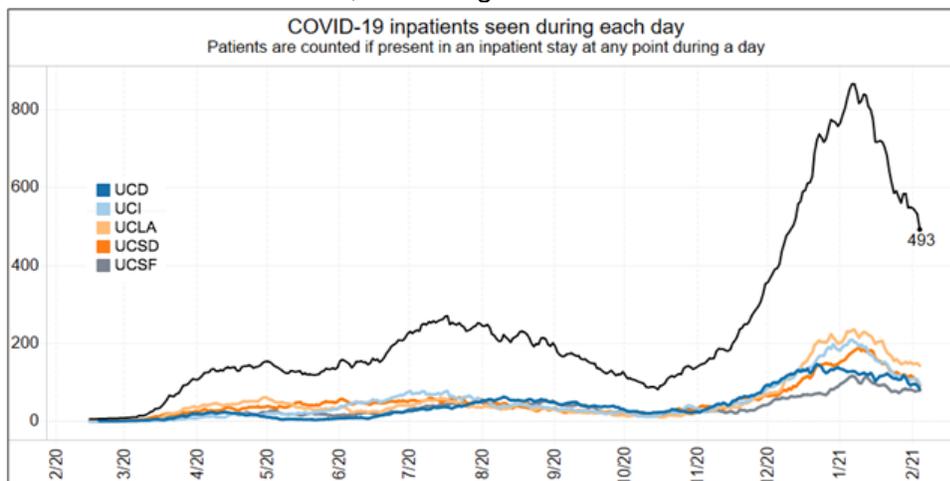


Source: Chronicle/LA Times data coalition

John Blanchard / The Chronicle

## OUR INPATIENT AND TESTING RESULTS

At UCH, hospitalizations from COVID-19 peaked at 806 before declining to the current inpatient census of 493. While any decline is a relief, each surge establishes a new, sustained baseline that represents ongoing demand on personnel and resources. The statewide 7-day positivity rate has decreased to 10%, according to CDPH.



Source: UCH Data Warehouse

This same downward trend can be seen in tests performed on UCH patients, which now vary from a high of 11.99% at UCI Health to a low of 1.01% at UC San Diego Health with a **systemwide average of 5.97%**, based on a 7-day rolling average.

## UC DAVIS WORKS TO PROTECT TOWN AND GOWN

Under the leadership of Chancellor Gary May, UC Davis launched '[Healthy Davis Together](#),' a comprehensive effort to provide SARS-CoV-2 testing, contact tracing and quarantine housing for campus personnel and as well as residents of the surrounding town. The effort also included nearly 300 undergraduate ambassadors to combat health disinformation and hand out masks.

The unique program is directed by Dr. Bradley Pollock, professor of epidemiology, chair of the Department of Public Health Sciences and associate dean for Public Health Sciences at UC Davis School of Medicine, and the leader of the Public Health Working Group of the UCH Coordinating Committee for COVID-19. Pollock says more than 850 potential outbreaks have been stopped over the past two and a half months.

Among the innovations of Health Davis Together is the re-purposing a machine normally used to identify plant DNA as a coronavirus testing machine capable of processing thousands of samples daily at remarkably low cost.



Photo by New York Times. Children learning how to swab for testing.

I congratulate Chancellor May, Professor Pollock and countless others who turned the challenge of protecting a campus into a bigger vision that served the entire community.

Learn more about **Healthy Davis Together** in the [New York Times](#).

## UCH AND MERCY MEDICAL CENTER TO SET UP VACCINE CLINIC IN MERCED

University of California Health is working with Dignity Health's Mercy Medical Center, UC Merced, Merced College and the County of Merced to set up a pop-up vaccination clinic in Merced next week. The multi-day event will vaccinate up to 750 people per day. Mercy Merced and UCH will provide vaccine doses. Efforts such as this seek to broaden the availability of vaccine to persons eligible under group 1A and [1B Tier One](#), which together include health care workers and persons 65 and older.

## ADDRESSING QUESTIONS ABOUT VIRUS AND VACCINE IN HUMAN MILK

Expectant and new parents have been concerned about the potential to transmit SARS-CoV-2 through human milk and wondering if taking the vaccine would impact the newborn's health. New studies from UC Merced, UC San Diego, UCLA Health and University of California Health Milk Bank indicate that human milk from recovered COVID-19 patients contains antibodies to COVID-19, including a special type of antibody called IgA that helps fight diseases that attack the lining of the lung. This creates the possibility that milk from a COVID-19-recovered parent may help infants fighting COVID-19.



The [study at UC Merced](#) is collaboration with a virology team Mount Sinai Hospital in New York City, which was at the heart of the epicenter last spring. Conducted by UC Merced health psychology Professor Jennifer Hahn-Holbrook, who happens to be the parent of an infant, and recent UC Merced graduate Jessica Marino who returned as a graduate student. The assessment consisted of a small group, and the team intends to broaden the study.

At UC San Diego, the Department of Pediatrics leveraged its Human Milk Research Biorepository (HMB), established in 2014, to conduct a similar assessment. The HMB has a broad objective of better understanding how environmental exposures that may impact composition, quality, quantity and safety of human milk. The HMB has ongoing institutional ethics approval to collect milk samples and health data from people who are supplying human milk and their children throughout the United States and Canada.

In March 2020 the HMB, in collaboration with the Mother-Milk-Infant Center of Research Excellence at UC San Diego School of Medicine and the Pediatric Infectious Disease Laboratory at UCLA Health, began recruiting donors who had tested positive for the SARS-CoV-2 virus. Samples from people supplying human milk who had a documented infection and provided milk collections at the time of and in the weeks after testing positive were analyzed for replication-competent virus. **None of the milk samples contained replication-competent virus.** The [HMB Study](#) is led by Program Director and Mother-to-Baby California Program Director Dr. Christina Chambers, and Dr. Lars Bode, professor of pediatrics in the Division of Neonatology and the Division of Gastroenterology and Nutrition in the Department of Pediatrics at UC San Diego.

In December 2020, with the new mRNA vaccines becoming available, pressing new research questions arose about the use of COVID-19 vaccinations in lactating parents. Guidance from the FDA says lactating parents who wish to be vaccinated may choose this option.

However, because there were no lactation studies conducted as part of vaccine clinical trials, there is a need to capture post-approval data from vaccinated parents who are supplying human milk. While it is not expected that there will be any negative impact of the vaccines themselves, data are needed to respond to vaccine hesitancy or unfounded fears that lead to discontinuation of feeding with human milk. By the end of January 2021, HMB has been contacted by over 3,300 parents who are supplying human milk and have been vaccinated against COVID-19 and want to participate in the study. Milk donors are provided materials to collect and ship 7-8 serial milk samples from shortly before vaccination, the day of first vaccine dose, and for up to several weeks following the second dose. These samples and clinical data will be used to understand if the vaccine has an impact on milk production or quality. The first set of milk samples has already begun arriving.



SOME OF THE HEROES OF THE PANDEMIC



**Captions on previous page:**

**Top L:** Why do you vaccinate? For Ashlie Spears at UC Davis Health, "I want to help stop the spread, and I so badly want to be able to be around my Grandmother and other Family Members once again."

**Top R:** At UCSF Fresno, the COVID-19 Equity Project and SJV PRIME students participate a listening session at the West Fresno Family Resource Center to hear the health care concerns of community members.

**2<sup>nd</sup> Row:** The COVID-19 Vaccination Superstation celebrates 100,000 shots in arms. Thank you Superstation leaders Lydia Ikeda, Edgar Rodriguez and Will Ford, as well as the medical teams, volunteers, the Padres and the County of San Diego who made this possible. The work continues.

**Bottom L:** Members of the UCI Health team and nursing students immunizing more than 2,700 patients ages 65 and older at the Bren Events Center. The vaccine is getting out there!

**Bottom M:** Patients 65 years of age or over with underlying health conditions start receiving vaccines at UC Davis Health.

## IN CLOSING

At UCH, we have come through the month of January, the hardest yet. There are glimmers of hope and many more challenges to come.

Once again, I am inspired by the work of our faculty, staff and students. Their creativity, innovation and willingness to collaborate with stakeholders across the state continue to yield benefits for all Californians and will eventually lead us out of this pandemic.

I remain confident in the vaccines that have received emergency use authorization and look forward to evaluating the full data from the three new vaccine candidates when reviews are undertaken at the FDA and the CDC.

While we wait for more vaccines, we must remain vigilant, especially as variants continue to emerge. Each infection is an

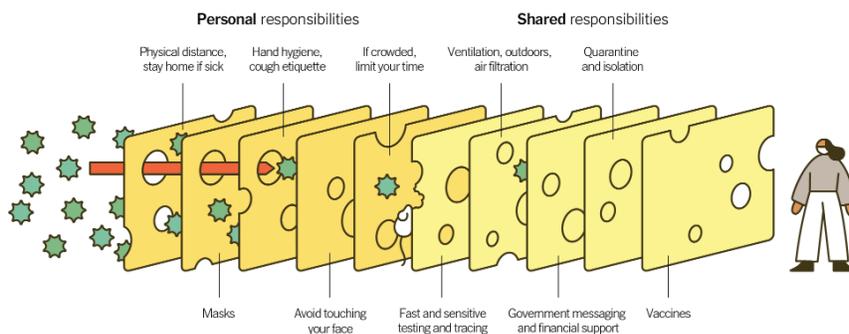
opportunity for viral replication and mutation. Therefore, we must continue to do what we know blocks viral transmission and prevents new infections. The [Swiss cheese model](#) is one way to remember the personal and shared actions that can keep all of us safer over the next months.

With gratitude and hope,

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

### Multiple Layers Improve Success

The Swiss Cheese Respiratory Pandemic Defense recognizes that no single intervention is perfect at preventing the spread of the coronavirus. Each intervention (layer) has holes.



**Graphic: Ian M. Mackay, James T. Reason and Rose Wong for NYT**