

May 8, 2020

COVID-19 AND 'CORONAVIRUS' UPDATES

CARRIE L. BYINGTON, MD

Executive Vice President, UC Health



THE IMPACT ON OUR HEALTH SYSTEM

This is the 13th update for Regents regarding the SARS-CoV-2 virus pandemic and the impact on the University's health and academic enterprise.

NATIONAL NURSES WEEK

Before jumping into this week's update, I want to acknowledge National Nurses Week, which is celebrated May 6-12 in the US. The end of the celebration, May 12, recognizes the 200th birthday of Florence Nightingale, considered the founder of modern nursing. Among her quotes is this observation, "***How very little can be done under the spirit of fear.***"

How true those words are as we face COVID-19. This pandemic has required so much from so many, but perhaps none more so than our nurses. In 2010, then-President Barack Obama addressed the American Nurses Association with these words, "America's nurses are [the beating heart of our medical system](#)." His words are no less true today.

The value of nurses also is reflected in a new art piece at Southampton General Hospital in England. In the monochromatic illustration by the street artist known only as 'Banksy,' a young boy has put away typical action heroes in favor of a new one – a nurse.

Whether at our hospitals, clinics or student health centers, nurses are the fearless and compassionate face of our health delivery system.

I'm grateful for their endless dedication to our patients, undeterred even during a pandemic. Our gratitude for their work during this pandemic will continue long after we have defeated this virus.



Left: A new work by the anonymous street artist Banksy appears outside a London hospital. **Right:** Florence Nightingale, the founder of modern nursing

COVID-19 BY THE NUMBERS

As of May 7, California had 60,614 confirmed cases of COVID-19 with 2,504 fatalities, according to the [California Department of Public Health](#) (CDPH), and 1.2 million cases in the U.S. with 73,297 fatalities, according to the [Centers for Disease Control and Prevention](#) (CDC). The number of new deaths per day nationally is now more than 2,500, reflecting the geographic spread of the virus as well as the lag time between exposure, hospitalization and death.

RESUMPTION OF ESSENTIAL SERVICES CONTINUES



After more than 50 days, 81-year-old Suren Vaniyev heads home after fighting COVID-19.

We have become expert at caring for COVID-19 patients. An example is the remarkable recovery of Mr. Suren Vaniyev at UC Davis.

He left the hospital after 50 days and just in time to celebrate his 81st birthday. We have now celebrated the recovery of 283 patients with COVID-19 across UC Health.

We are ready to begin the new normal of caring for patients with COVID-19 and those with other serious health needs at the same time.

In my May 1 update, I announced 10 principles to guide the resumption of essential and preventive care services. We are making these adjustments in a careful manner, informed by the conditions in each market. As of today, the census at our medical centers for conditions other than COVID-19 is gradually moving up. We are approaching 70-80% of capacity, depending on location. This is only possible because efforts to ‘flatten the curve’ have produced results. Across the country, states and municipalities are in various stages of relaxing restrictions.

Regional Variance Criteria

<p>Epidemiologic stability</p> <ul style="list-style-type: none"> ✓ No more than 1 case per 10,000 people in the last 14 days ✓ No COVID-19 death in the past 14 days 	<p>Testing capacity</p> <ul style="list-style-type: none"> ✓ Minimum daily testing of 1.5 per 1,000 residents
<p>Protection of Stage 1 essential workers</p> <ul style="list-style-type: none"> ✓ Ability to support employees when sick or exposed ✓ Availability of disinfectant supplies and protective gear 	<p>Containment capacity</p> <ul style="list-style-type: none"> ✓ At least 15 contact tracers per 100,000 residents ✓ Ability to temporarily house at least 15% of county residents experiencing homelessness

On May 7, Governor Newsom outlined the [criteria for portions of the state to move from Phase I, shelter in place, to Phase II of a four-part resumption plan](#).

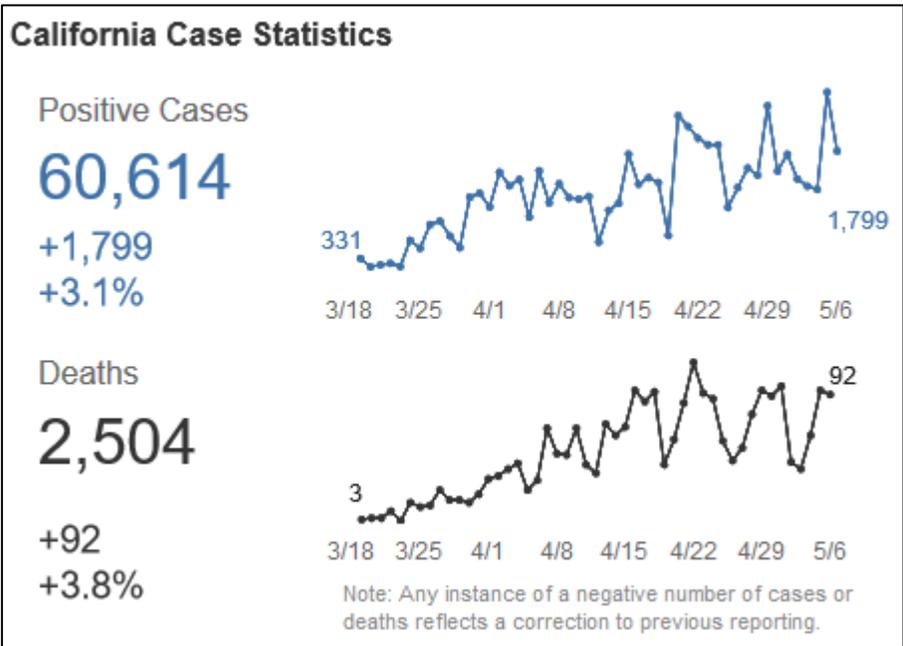
Even as the state charts its course, some counties are acting independently.

The inconsistencies in regional actions complicate the modeling used to predict the progression of the pandemic.

Rather than familiar bell-shaped epidemic curve, we may see jagged spikes and valleys with significant geographic variations.

Regional Variance Criteria

<p>Hospital capacity</p> <ul style="list-style-type: none"> ✓ County or regional capacity to accommodate a minimum surge of 35% ✓ Hospital facilities must have a robust plan to protect hospital workforce 	
<p>Vulnerable populations</p> <ul style="list-style-type: none"> ✓ Skilled nursing facilities must have more than 14 day supply of PPE on hand for staff with ongoing procurement from non-state supply chains 	
<p>Triggers for adjusting modifications</p> <ul style="list-style-type: none"> ✓ Metrics that serve as triggers for either slowing the pace through stage 2 or tightening modifications 	



You can see this pattern in the [CDPH dashboard](#). These 'jagged' patterns may intensify with significant variations by region.

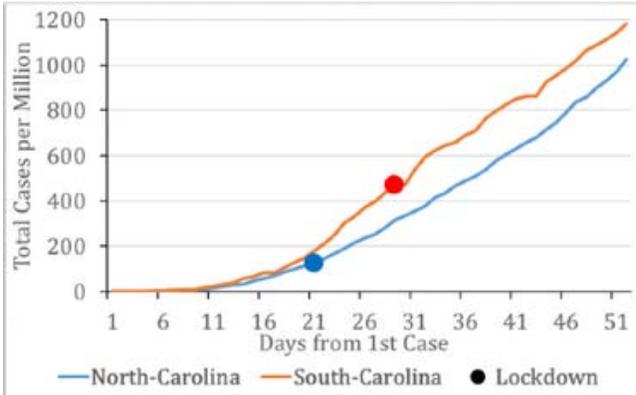
As you will see on the UC Health dashboard on page 8, our inpatient volume from COVID-19 is drifting downward.

This is a positive indicator for us and one of the metrics we are using enable us to resume medically necessary care for other patients.

Source: [CDPH Dashboard](#)

THE 'PRICE OF DELAY' CAN BE QUANTIFIED

As I've noted previously, early actions in California by local public health officials and the Governor have been instrumental in 'flattening the curve.' Now, [a new study from UC Riverside, in collaboration with other universities](#), has quantified how delays in issuing stay-at-home orders translates to the number of COVID-19 cases. The investigators analyzed the natural experiments that are occurring across the country and compared cases between similar states



with different approaches to mandatory lockdowns. The adjacent chart shows North Carolina and South Carolina trends with North Carolina taking action more quickly and experiencing a lower number of cases overall.

Each week of delay increases the number of cases by a 15% to 25%, and states that have not issued stay-at-home orders can expect 45-128% increases in the number of cases they will experience.

This lesson resonates as regions begin relaxing restrictions. Even as restrictions are relaxed, we can all continue to act responsibly and protect one another by remaining home as much as possible and always if ill, maintaining physical distance, practicing hand hygiene, and wearing face coverings in public.

UC SAN DIEGO LAUNCHES 'RETURN TO LEARN' INITIATIVE

As campuses across the country assess how to handle classes in the fall, UC San Diego is launching a voluntary testing program for the 5,000 students who remain on its campus despite the shift to remote learning. [UCSD Chancellor Pradeep Khosla announced the program May 5](#), and it is scheduled to begin next week.

Students who opt-in will take their own nasal swab, scan the barcode on the container using an app on their smartphone, and leave the sample in a collection box. Tests will be run by UCSD's Center for Advanced Laboratory Medicine and results will be available within a day or so. Students who test positive will be referred for health care, work with contact tracers to notify those who may have been exposed, and offered designated housing for a self-quarantine period.

The effort is a pilot to understand the current state of the virus on campus and to assess logistical aspects of ramping up the testing in preparation for fall classes.

UCSF AND UCLA HELP STATE FILL URGENT NEED FOR CONTACT TRACERS

On May 4, [Governor Newsom announced](#) an ambitious program with UCSF and UCLA to train thousands of people in contact tracing protocols. The goal is to train 20,000 individuals in two months.

The online training program leverages [the expertise of Dr. George Rutherford](#), chief of the infectious disease and global epidemiology divisions and director of Prevention and Public Health Group at UCSF.

The curriculum includes significant online training as well as 'live' practice sessions notifying close contacts of people who have tested positive. The program will be used by county health departments around the state, with the first group of trainees expected to be municipal and state workers who are unable to perform their normal jobs remotely during the stay-at-home orders.

The efforts seeks to build upon a gradual expansion in testing access, so that individuals who test positive receive counseling and services to help them self-quarantine.

SYSTEMWIDE TASK FORCE ON TESTING AND CONTACT TRACING

The issue of how to create a safer learning and working environment is on the minds of all academic leaders. The UC Health Coordination Committee (UCHCC) is organizing a systemwide task force to assist campuses in a prudent resumption of activities. The group will:

- Share expertise and develop best practices for campus initiatives to support resumption of in person activities.
- Develop systemwide recommendations for diagnostic testing for students, faculty and staff including who should be tested and how often.
- Examine systemwide testing capacity and contact tracing capability, identify coordination opportunities and recommend roles and responsibilities.
- Explore sustainability (including cost and opportunities for cost recovery) of testing and contract tracing planning efforts.

Large-scale testing and contact tracing are pieces of a larger resumption framework that also will include high-level guidance about social distancing practices, outside visitors, face coverings, and disinfection practices. It is important to remember that the virus is in all communities in which are campuses are located. It is not possible to eliminate all risks, but we are determined to reduce risk whenever possible.

The representatives from each location are listed on the next page.

Name	Location	Role
Carrie Byington (Co-Lead)	UCOP	Lead
Theresa Maldonado (Co-Lead)	UCOP	Research
Amina Assefa (Liaison)	UCOP	Liaison
Veronica Nelson (Liaison)	UCOP	Liaison
Brad Buchman	UCOP	Student Health
Atul Butte (or rep)	UCOP/UCSF	Data Science
Zoanne Nelson	UCOP	UCOP rep
Brian Oatman	ANR	ANR rep
Nicholas Jewell	Berkeley	Biostatistics
Guy Nicolette	Berkeley	Student Health
Art Reingold	Berkeley	Epidemiology and Biostatistics
Lydia Howell	Davis	Pathology
Nam Tran	Davis	Lab Testing
Steven Goldstein	Irvine	VC Health
Peter Heseltine	Irvine	Infectious Disease
Nigel Mouncey	LBNL	Biochemistry
Ken Turteltaub	LLNL	Bioscience & Biotechnology
Eleazar Eskin	Los Angeles	Computational Medicine
Dorothy "Dottie" Wiley	Los Angeles	Nursing
Thelma Hurd	Merced	Medical Education
Isgouhi Kaloshian	Riverside	Nematology
Steve Gonias	San Diego	Lab Testing
Robert "Chip" Schooley	San Diego	Infectious Disease
Kirsten Domingo-Bibbins	San Francisco	Epidemiology & Biostatistics
Joe DeRisi	San Francisco	Biochemistry And Biophysics
Holly Smith	Santa Barbara	Student Health
Matt Hall	Santa Barbara	Contact tracing/IT
Jeremy Sanford	Santa Cruz	MCD Biology
Mac Hamlett	UCDC	UCDC rep
TBD	TBD	VCR Rep

UPDATE ON TESTING IN SAN FRANCISCO'S MISSION DISTRICT



Katie Machado, RN, UCSF Nurse Practitioner Student, conducts testing in San Francisco's Mission District.

In last week's update I applauded UCSF for its partnering with local groups and the SF Department of Public Health to conduct widespread testing in the City's Mission District.

Over several days, [more than 4,000 people were tested](#) with an overall 2.1% positive rate. Latinos comprised 44% of the population tested and accounted for almost 95% of the positive cases. Most were asymptomatic.

Only 10% reported being able to work from home.

This overrepresentation of COVID-19 cases among Latinos and other minority communities has been seen in both the state and the nation. Social determinants of health are evident during the pandemic. Racial and ethnic minorities in the US are often in roles that are classified as essential workers and are less likely to be able to work from home. They face a disproportionate burden during the pandemic.

The testing is part of an integrated effort referred to as "test to care," in which every person who tests positive will receive follow-up contact and care. The initial contact will inform them of their status and need for quarantine, while also launching a contact tracing process of identifying who

else may be at risk in their family or close contacts. They also are being linked to any resources they need to enable them to socially distance, as well as links to care if they develop further symptoms.

This effort aligns with a new tool developed at UCSF. The [UCSF Health Atlas](#) tracks COVID-19 across the state and graphically displays data related to cases and deaths based on community characteristics such as race and ethnicity, socioeconomic status and other social determinants of health. These data help to inform researchers, policy makers, community advocates, and public health professionals as we work to end the pandemic. UC Health is committed to improving health equity by addressing health disparities.

UC HOSTS 10TH ANNUAL GLOBAL HEALTH DAY VIA ZOOM

One of the many amazing things about UC is its global influence.

On Saturday May 2, I had the pleasure of joining the 2020 Global Health Conference hosted, virtually, by the UC Global Health Institute (UCGHI). The Institute, founded by Dr. Haile Debas from UCSF, includes all 10 campuses and marked its tenth anniversary this year. The institute nurtures research efforts, regardless of location, that can benefit people in California and the world.



This year, the Global Health Day event was conducted via Zoom for the first time. Although we were not able to meet in person, we had over 500 participants from all over the world and UC students and trainees from all of our campuses. There were 71 posters from our UC campuses as well as international presentations from Africa, India and South America.

Participating students had the opportunity to benefit from hearing from UC COVID-19 experts including Dr. Jonna Mazet, epidemiologist and Executive Director of UC Davis One Health Institute, who also serves on a coronavirus task force for the National Academy of Medicine.

The passion of the faculty, researchers, and students was evident as they shared their work. This Conference is a wonderful example of international collaboration and a reminder that solutions can come from anywhere.

NEW COVID-19 DATA SET SEEKS TO ACCELERATE RESEARCH ACROSS UC

In order to accelerate knowledge development about SARS-CoV-2, UC Health has established the COVID-19 Research Data Set (**CORDS**).

CORDS is a collaboration between UC's Biomedical, Research, Acceleration, Integration, & Development group ([UC BRAID](#)), the UC Health Data Warehouse and campus Institutional Review Boards (**IRBs**).

The information combines patient data from all five UC academic health centers to create a critical mass of demographic, medical history, lab results and other information that can be mined by principal investigators across the system. More information will be added over time. All patient information is de-identified and researchers sign a data use agreement with strict privacy guidelines.

UC BRAID also has created the COVID Virtual Biospecimen Network (**CVBN**) so researchers can find and potentially access physical samples for research purposes. The CVBN is an expansion of an existing biospecimen library that contains more than 300,000 samples from 16 biobanks at UC medical centers. We are working to provide access to investigators at all UC campuses and will provide updates on that process.

"This is another example of the power of UC when we work together," said Atul Butte, chief data scientist for UC Health. "We are still only four months into this pandemic. We really need to know how to treat COVID-19 patients, what's working, and what is not. That means detecting patterns that might only be visible in a very large data set. We are pulling the information together so that UC clinicians and researchers - even those not at the medical centers - will be able to bring their problem-solving skills to help all of us deal with the COVID-19 challenge."

COVID-19'S IMPACT ON CHILDREN STARTS TO EMERGE

Although anyone can contract and carry the virus, children have been less likely to show signs of infection or to be hospitalized when compared with older adults and those with co-morbidities.

So, it is worrisome that health authorities in New York City have observed 15 children who were hospitalized with a severe multi-system inflammatory syndrome. The syndrome is similar to Kawasaki Disease. Several of the children had evidence of COVID-19 infection or had antibody to SARS-CoV2. Similar reports have come from the UK and Europe.

Dr. Jane Burns, a pediatrician and Director of the Kawasaki Disease Research Center at UCSD commented in a [recent article in STAT News](#), that COVID-19 "may be a trigger for some children to develop KD," in line with how there were different triggers for different children based on genetics. But, she added, "there is no information to suggest that children who have had KD are at increased risk for complications of COVID-19 infection compared to the general population."

While the number of cases remains small, it reinforces a core message that no one is immune to COVID-19. As a pediatrician, I am following this information closely.

UC DAVIS HEALTH CEO JOINS CMA BOARD

Dr. David Lubarsky, Vice Chancellor of Human Health Sciences and CEO of UC Davis Health, was [elected to the California Medical Association \(CMA\) Board of Trustees](#) to better represent the 6,000 physicians of the University of California health systems and all California physicians in academic practice.

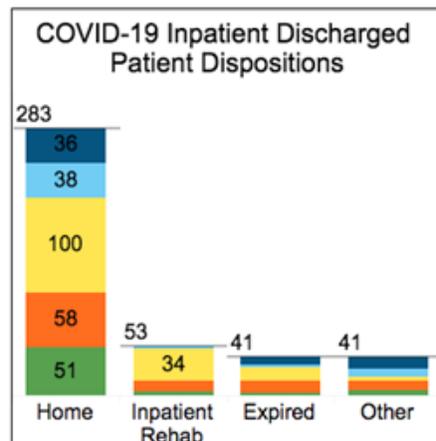
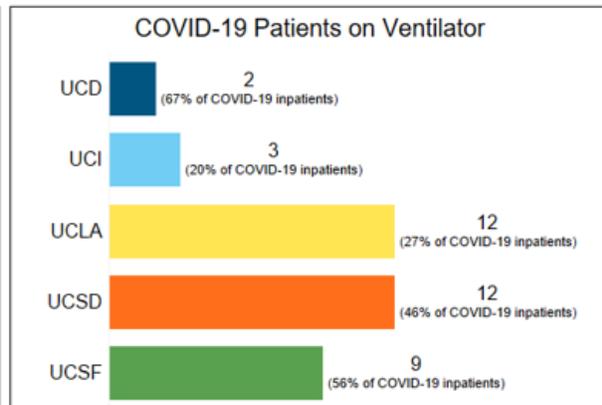
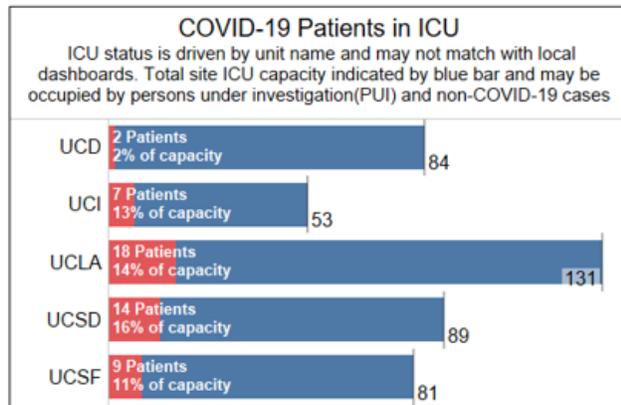
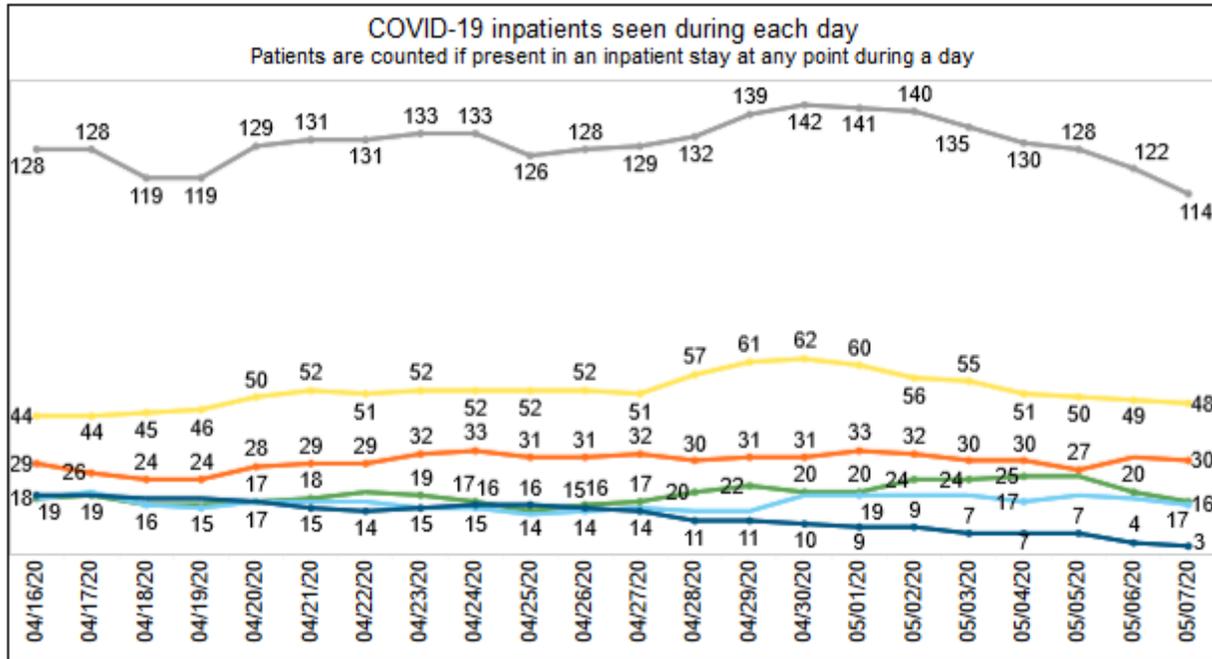
He began his three-year term in April during this historic and challenging time in medicine. The CMA is the recognized voice of California's doctors and the leading medical association in the state. The board is its primary policy-making body.

Lubarsky has long been a strong proponent of physicians and academic medical centers playing a leading role in shaping health care policy and contributing their science-based, patient-centric approach to health care and public health.

The CMA serves nearly 50,000 members in all modes of medical practice and specialties. Its mission is to promote the science and art of medicine, protect public health and work for the betterment of the medical profession.

INPATIENT CENSUS FOR COVID-19 ENCOURAGING

As noted on page 1, our resumption of essential and preventive services is strongly linked to our ability to remain prepared for patient surges that may quickly occur. Our inpatient trend graph for COVID-19 is encouraging.



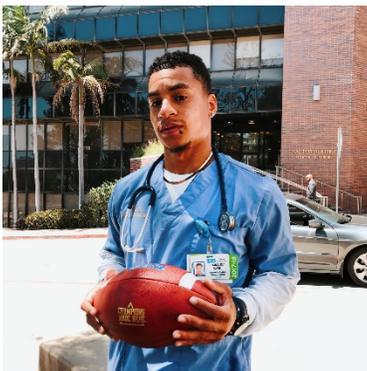
As of midnight May 7, UC Health had 114 SARS-CoV-2 positive inpatients, with the highest number (48) at UCLA Health.

Fifty of these were in one of our 406 staffed ICU beds. Thirty-eight were on a ventilator.

To date, 283 patients have been successfully discharged to home, 53 were discharged to inpatient rehabilitation elsewhere, and 41 have died.

Source: UC Health Data Warehouse

NURSES WEEK – SOME OF THE HEROES OF THE PANDEMIC



Top L: Nurse of the Year [Al Nutt](#), at UC Davis Medical Center, checks on a patient.
Top R: [Jovelyn Cabungcal](#) at UCI Medical Centers receives Supervisor of the Year award.
Middle: The [nurses at UCSF Benioff Children's](#) are heroes to their little patients.
Bottom L: [Roosevelt Davis](#) went from UCLA football to a Master's in Nursing at UCLA.
Bottom R: Director of Nursing Education Ellen Nyheim, RN, thanks UCSD Nurses ([video](#)).

Note: Some images predate universal masking guidance.



Top L: Nurses at UCSF show off some dance moves. [You'll want to see this video.](#)

Top R: UCSF Benioff Children's Oakland nurses got a special greeting as they start their shifts ([video](#))

Middle: Gratitude expressed in rainbow colors outside UC Davis School of Nursing.

Bottom L: [LA Dodger Dave Roberts updated his jersey](#) with name of a UCLA nurse.

THANK YOU TO ALL THE NURSES OF UC

IMPACT ON THE ACADEMIC ENTERPRISE

- The UC Center Sacramento (UCCS), which is currently offering its spring quarter entirely remotely, has tentatively planned to offer its summer 2020 program remotely as well.
- The President's Postdoctoral Fellowship Program (PPFP) converted its annual Spring Academic Retreat into a successful two-day virtual conference on April 18 and 19. The remote event has received positive reviews. PPFP is also providing additional research funds to current fellows to help buffer the anticipated costs of working remotely. These costs are being funded by savings from programming that PPFP has had to cancel due to COVID-19 mitigations.

IN CLOSING

As we end another week living with COVID-19, I am so proud to lead UC Health and to work with colleagues across the UC System. The dedication, excellence and ingenuity of our faculty and staff is second to none. Even more inspirational is the deep commitment to mission and to service that I see each day. The UC system is a resource that supports the health and well-being of our entire state.

Next week I will discuss the financial implications of COVID-19 on our health system, and why now more than ever, it is so important to work together to ensure that UC Health and the UC system can continue to perform the functions so vital to our state and nation during the pandemic and beyond.

With gratitude,

Carrie L. Byington, MD
Executive Vice President
UC Health