April 2, 2021 Update
COVID-19 AND 'CORONAVIRUS' UPDATES

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Executive Vice President, University of California Health

THE IMPACT ON OUR HEALTH SYSTEM
This is the 30th update for Regents regarding the SARS-CoV-2 virus pandemic and its impact on the University’s health and academic enterprise.

On March 31, Pfizer/BioNTech announced early results of clinical trials of its vaccine in adolescents 12-15 years old, stating it is 100% effective in preventing symptomatic illness, had minimal side effects and generated a stronger antibody response than in the 16-25 year-old population. The company is expected to release comprehensive data soon and apply for Emergency Use Authorization (EUA) for this age group in the coming weeks. Pfizer/BioNTech is also launching early stage global clinical trials for children in three age brackets, 5-11 years, 2-5 years, and 6 months to 2 years.

On April 1, California expanded vaccine eligibility to all adults 50 years or older. On April 15, the age requirement will drop again to 16 years of age, although this population will only be able to receive the Pfizer/BioNTech vaccine because Moderna’s and Johnson & Johnson’s vaccines have EUA approval only for those 18 years and above.

The supply of vaccines continues to be limited, but improving. The lower age requirements are essential in mounting a comprehensive community immunity yet will also keep demand greater than supply throughout April and early May. The majority of doses are available via the state’s MyTurn.ca.gov website or its 7-days-a-week call center at 1-833-422-4255.

At University of California Health (UCH), we have worked closely with Blue Shield, the state’s third-party administrator of vaccine allocation, and the California Department of Public Health (CDPH) to obtain second doses for individuals who received their first vaccinations through our mass vaccination sites. First dose supplies continue to be constrained, which limits our ability to quickly reach our attributed patients who have not have been vaccinated elsewhere. We have seen improvements this week however, with over 50,000 vaccines allocated to UCH sites. We will endeavor to reach as many as possible each week.

COVID-19 BY THE NUMBERS
Statewide, the picture has improved significantly based on CDPH data. The statewide 7-day positivity rate is at 1.8%, allowing many counties to move to the less restrictive red and orange tiers.

Yet this pandemic is far from over. As of April 1, 58,269 Californians have died from COVID-19. While the number of vaccines administered is 18.8 million, only 21.3% of the state is fully
vaccinated. This means we remain susceptible to increases in hospitalization as business and social activities create interactions.

**UCH COVID-19 HOSPITALIZATIONS DECREASE BUT AT SLOWING RATE**

Our graph of hospitalizations from COVID-19 clearly shows a sharp decrease from January’s surge, but the rate of decline has gradually slowed. This gives me pause given that the impact of Spring Break and Passover and Easter gatherings will not be known for the next two to four weeks. As of April 2, our COVID-19 attributable inpatient census stood at **113**. The 7-day test positivity rate among UCH patients continues to decrease, with a high of 3.51% at UC Davis Health and a low of 0.44% at UC San Diego Health, with a systemwide average of 1.53%, similar to the state average.

**Source: UCH Data Warehouse**

Hospitalizations from COVID-19 have decreased statewide among all facilities, now at 2,599 according to CDPH data. Hospitalizations among those 80 and older have declined from more than 3,000 at the start of January to fewer than 200 by March 19, dropping markedly each week. During the week of March 19, hospitalizations among young people outnumbered hospitalizations among those 80 and up.

This trend in hospitalization among younger adults in California may continue as the impact of Spring Break becomes evident. Expanded vaccination eligibility can mitigate further spread if dose supplies are consistently available.

**AS TRAVEL INCREASES, TESTING AND 5-DAY QUARANTINES CAN LIMIT SPREAD**

Although flight volume is down about 40% from pre-pandemic levels, the Transportation Security Administration (TSA) has marked 20 consecutive days of screening more than one million passengers. What are the implications of this increased travel to the spread of SARS-CoV-2?
An article in the March 22 issue of The Lancet Infectious Diseases journal, with seven UC co-authors, points to the value of test-travel-test approaches coupled with short-term post-arrival isolation can be an effective way of reducing transmission from departure points with higher positivity rates to destinations with lower prevalence.

Routine asymptomatic testing for SARS-CoV-2 with antigen tests immediately before travel, coupled with abbreviated quarantine (5 days) and post-travel testing is probably needed to reduce population-level transmission.

UC co-authors were Lloyd A. C. Chapman, Ph.D., Isabel Rodríguez-Barraquer, M.D., Bryan Greenhouse, M.D., George W. Rutherford, M.D., Kirsten Bibbins-Domingo, M.D., Diane Havlir, M.D., and Nathan C. Lo, M.D..

THOUGH MINUSCLUE, RISK OF INFECTION POST-VACCINATION POSSIBLE

A study of vaccinated health care workers found that a tiny percentage tested positive, underscoring need for mitigation measures until population has achieved herd immunity through vaccination. In a March 23 letter to The New England Journal of Medicine, a group of investigators from UC San Diego School of Medicine and the David Geffen School of Medicine at UCLA reported approximately 1% risk of infection, based on a cohort of health care workers previously vaccinated for the novel coronavirus.

The authors looked at pooled data from UC San Diego and UCLA health care workers who received either the Pfizer or Moderna vaccines between December 16, 2020 and February 9, 2021 (36,659 first doses, 28,184 second doses), a time period that coincided with a significant surge in COVID-19 infections in the region.

Within this group, 379 individuals tested positive for SARS-CoV-2 at least one day following vaccination, with the majority (71 percent) testing positive within the first two weeks after the first dose. Thirty-seven health care workers out of 14,990 tested positive after receiving two doses, which is when maximum immune protection is expected to be achieved with both vaccines. That is a positivity rate in the fully vaccinated of 0.05%.

The authors estimated that absolute risk of testing positive for SARS-CoV-2 following any vaccination was 1.19% for health care workers at UC San Diego Health and 0.97% at UCLA Health, both higher than the risk identified in the Moderna and Pfizer clinical trials, which were not limited to health care workers. The authors noted several possible explanations:

- The health care workers surveyed have access to regular asymptomatic and symptomatic testing, meaning asymptomatic infections would have been more readily detectible;
There was a regional surge in infections overlapping with vaccination campaigns during this time period;

- There are differences in the demographics of health care workers compared to participants in the vaccine clinical trials, in particular, health care workers tend to be younger and have a greater overall risk of exposure to SARS-CoV-2 in the community due to common activities such as dining out.

The authors found that risk of infection 14 days after second dose, when maximum immunity is expected to be reached, was rare.

These findings offer hope and also underscore the critical importance of continued public health mitigation measures (masking, physical distancing, daily symptom screening and regular testing), even in highly vaccinated environments, until herd immunity is reached at large.

UC authors included Jocelyn Keehner, M.D., and Lucy E. Horton, M.D., MPH, of UC San Diego Health; Michael A. Pfeffer, M.D., of the David Geffen School of Medicine at UCLA; Christopher A. Longhurst, M.D., and Robert T. Schooley, M.D. of UC San Diego Health; Judith S. Currier, M.D., of the David Geffen School of Medicine at UCLA; and Shira R. Abeles, M.D., and Francesca J. Torriani, M.D., of UC San Diego Health.

A BRIGHT SPOT IN THE PANDEMIC – GRADUATES OF UC SCHOOLS OF MEDICINE

On the second Friday in March, students graduating from schools of medicine across the nation learn where they will go for the next phase of training – residency. This time, of course, students in their fourth year of clinical training faced increased virtual instruction, hands-on training completely covered in personal protective equipment, and high-pressure residency interviews via Zoom. Although the hurdles were significant, UC’s graduating medical students rose to the challenge and exemplified the spirit of being “Boldly Californian.”

<table>
<thead>
<tr>
<th>School of Medicine</th>
<th>Match Rate</th>
<th>Matched in California</th>
<th>Matched in a UC Facility</th>
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<tbody>
<tr>
<td>UC Davis</td>
<td>99%</td>
<td>88.6%</td>
<td>42%</td>
</tr>
<tr>
<td>UC Irvine</td>
<td>99%</td>
<td>71%</td>
<td>54%</td>
</tr>
<tr>
<td>UCLA</td>
<td>99%</td>
<td>71%</td>
<td>35%</td>
</tr>
<tr>
<td>UC Riverside</td>
<td>97%</td>
<td>85%</td>
<td>37%</td>
</tr>
<tr>
<td>UC San Diego</td>
<td>99.3%</td>
<td>65.5%</td>
<td>38.1%</td>
</tr>
<tr>
<td>UCSF</td>
<td>96.6%</td>
<td>63%</td>
<td>46.2%</td>
</tr>
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The systemwide Match Rate average of 98.3%, exceeds the national average of 94% as reported by the Association of American Medical Colleges (AAMC).

Although Match Day and the next article about updated rankings of graduate schools by U.S. News & World Report are not primarily COVID-19 related, I can’t help but celebrate of all our exceptional health professional students who completed intensive training and exams during the
height of the pandemic, and who are now stepping into a professional world that is still grappling with COVID-19.

This sentiment was well-expressed by Christos Haveles, President of the Class of 2021, at the David Geffen School of Medicine at UCLA.

I hope you will take a moment to see and hear the excitement of the occasion in this video.

UC’S HEALTH PROFESSIONAL SCHOOLS EARN HIGH MARKS IN LATEST SURVEY

Among the accolades earned by our health professional schools are the U.S. News & World Report rankings. The publication ranks graduate schools, hospitals and children’s hospitals at various times throughout the year. The results below are for 2022, based on 2021 information.

The just-released rankings include medical, nursing and public health schools and programs. This year’s medical school rankings also include, for the first time, a metric for diversity. On this important metric, four of our six UC medical schools were ranked in the top 10 in the nation—a metric we celebrate.

To make progress toward health equity, we must have health care providers who reflect the diversity of our communities. We’re pleased that University of California Health medical schools are leading the nation in making progress toward increasing diversity by encouraging students from underrepresented groups to apply. At the same time, we know much more work to eliminate disparities and increase inclusion needs to be done. As a system, we are committed to creating opportunities for all.

<table>
<thead>
<tr>
<th>Best Nursing: Masters</th>
<th>Best Public Health</th>
<th>Best Medical: Research</th>
<th>Best Medical: Primary Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>#9 UCSF</td>
<td>#8 UC Berkeley</td>
<td>#4 UCSF</td>
<td>#2 UCSF</td>
</tr>
<tr>
<td>#16 UCLA</td>
<td>#10 UCLA</td>
<td>#19 UC San Diego</td>
<td>#11 UC Davis</td>
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<tr>
<td>#24 UC Davis</td>
<td>#24 UC Davis</td>
<td>#21 UCLA</td>
<td>#12 UCLA</td>
</tr>
<tr>
<td>#45 UC Irvine</td>
<td>#41 UC Irvine</td>
<td>#48 UC Davis (tie)</td>
<td>#28 UC San Diego</td>
</tr>
<tr>
<td></td>
<td></td>
<td>#48 UC Irvine (tie)</td>
<td>#41 UC Irvine</td>
</tr>
</tbody>
</table>

Medical School Diversity National Rankings

#4 UC Davis SOM
#6 UC Riverside SOM
#9 UCLA DGSOM (tie)
#9 UCSF SOM (tie)

UC Riverside School of Medicine. Photo by Carlos Puma.
SOME OF THE HEROES OF THE PANDEMIC

Top L: UCSF delivered its 100,000th dose to patient Dorita Fernandez (video).
Top R: UC Davis clinical social workers take a moment to mark Social Work Month.
Center: Unidos En Salud, a partnership between the Latino Task Force for COVID-19 and UCSF, used a “test-to-care” model. Hear the NPR story.
Bottom L: COVID-19 care goes beyond clinical care to IT infrastructure, and UC Women Rock IT.
Bottom R: UCLA covid vaccine volunteer crew at a mobile vaccine pop-up with Clinica Oscar Romero, one of many examples of community outreach.
IN CLOSING

The arrival of spring, improving access to vaccines and declines in hospitalizations has brightened everyone’s moods. I share that feeling of hope and renewal personally, while professionally remaining vigilant. Relaxation of restrictions combined with spring holidays creates conditions that could lead to a fourth surge. My hope is we can continue to increase our pace of vaccination and that people will practice public health measures. Both of these have the power to blunt a fourth surge and allow us to enter a summer filled with potential.

Although I remain vigilant, the long-elusive light at the end of the tunnel feels much closer than at any point since December 2019 when COVID-19 got its name.

The COVID-19 pandemic has transformed all of us. In many ways, across UCH, we are stronger and have learned lessons that will make us a better health system moving forward. Yet I recognize our work force is drained, emotionally fragile, and in need of respite. This mix of feelings can be hard to unravel, and the path to recovery will vary by individual and take time.

I invite you to read my interview about “Navigating a year of heartbreak and hope,” and “COVID-19: A year in reflections; The UC community shares their stories of a year of hardship, courage and resilience” and to watch this year-in-retrospect video from UCI. I hope these stories, although a small piece of our shared experience, will resonate with you.

As we enter the second year of the pandemic, much work remains. We are still vulnerable to infection and have hundreds of millions of vaccines left to administer in the US. We still have long-haulers who need care. We must track the variants and remain open to the possibility that booster shots may be needed for durable immunity. Hospitalizations will still occur, as will deaths from COVID-19.

More broadly, our society’s needs for equity and justice remain pressing. Cesar Chavez Day celebrated last month reminds us of progress made for farm worker’s rights, and yet COVID deaths in this population remain disproportionally higher that other groups. The trial of the officers involved in George Floyd’s death and the recent increase violence against Asian Americans makes it all too clear that gaping racial inequities persist.

We need time to reflect on what has passed this last year and on what lessons we want to take from the experiences of the pandemic to re-envision and re-make our future.
In this spirit, we will reduce the frequency of these updates to quarterly. I will continue to provide COVID-19 updates at Health Services Committee and full Board of Regents meetings. I remain profoundly and forever grateful to our frontline workers, educators, investigators, students, trainees, leaders and volunteers who have poured themselves into meeting the once in a lifetime challenge of the SARS-CoV2 pandemic. Their actions saved lives in year one and will continue to do so as we move forward into year two and beyond. Words will never be enough.
Fiat Lux

In gratitude,

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