

The Regents of the University of California

HEALTH SERVICES COMMITTEE

May 20, 2020

The Health Services Committee met on the above date by teleconference meeting conducted in accordance with Paragraph 3 of Governor Newsom's Executive Order N-29-20.

Members present: Regents Blum, Guber, Lansing, Makarechian, Park, Sherman, and Zettel; Ex officio members Napolitano and Pérez; Executive Vice President Byington; Chancellors Block, Hawgood, and Khosla; Advisory members Hernandez, Hetts, and Lipstein

In attendance: Regents Anguiano, Butler, Cohen, Elliott, Estolano, Kieffer, Kounalakis, Leib, Ortiz Oakley, Reilly, Simmons, Sures, Um, and Weddle, Regents-designate Mart, Muwwakkil, and Stegura, Faculty Representatives Bhavnani and Gauvain, Secretary and Chief of Staff Shaw, General Counsel Robinson, Chief Investment Officer Bachher, Provost Brown, Executive Vice President and Chief Operating Officer Nava, Interim Executive Vice President and Chief Financial Officer Jenny, Vice President Brown, Interim Vice President Lloyd, Chancellors Christ, Gillman, Larive, May, Wilcox, and Yang, Interim Chancellor Brostrom, and Recording Secretary Johns

The meeting convened at 10:30 a.m. with Committee Chair Lansing presiding.

UPDATE OF COVID-19 IMPACT ON THE UNIVERSITY OF CALIFORNIA: UC HEALTH ISSUES

[Background material was provided to Regents in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Executive Vice President Byington began the discussion by recalling that, at the time of the March meeting, there were only 7,087 cases of COVID-19 in the United States. The status of the pandemic had changed quickly in the intervening two months. At this time there were five million cases in the world, with 1.5 million of these in the United States. The number of deaths in the U.S. from COVID-19 had exceeded 92,000.

Dr. Byington presented a chart showing mortality rates in the U.S. from pneumonia, influenza, and COVID-19 from 2018 through the present. For 2018 and 2019, the chart indicated fluctuations that reflected the ordinary influenza season, followed by a significant increase in deaths in 2020 from pneumonia, influenza, and COVID-19. The peak had been reached during the week of April 11, and the nation was now in a downward trajectory.

The next chart showed the seven-day rolling average of cases in the U.S. from the beginning of the pandemic. It indicated a downward trajectory of cases, which was an encouraging sign. The

vast majority of cases were in New York, and the chart reflected the control over COVID-19 in New York City and New York State.

Dr. Byington then discussed an epidemiological model which used artificial intelligence and machine learning and had accurately projected numbers of deaths. This model showed that California had “flattened the curve” of the pandemic and projected that the situation would remain more or less the same through August. The University needed to prepare for this. As an infectious disease specialist, Dr. Byington expected to see additional cases in fall and winter, when the virus might display some seasonality and there would be another influenza season. Referring to another chart, she explained that the R nought or basic reproduction number indicated the number of people expected to be affected by each case and was used to determine if measures were effective in reducing transmission. It was desirable to have an R nought value below the threshold of one. Most states in the U.S. were below this threshold, due to the strict measures for sheltering in place taken in most states. The R nought value for California in mid-May was 0.85; this meant that for one infected patient, one could expect the infection to spread, on average, to 0.85 people. It was not yet known whether this value would rise above one, as social distancing measures were relaxed.

Sheltering in place was the most effective method for reducing transmission and maintaining an R nought level below one. Sheltering in place measures had been in place in California for eight weeks and it was clear that these measures had costs for individuals and the economy and could not be sustained. The development of a vaccine was a global priority. There was a need to develop therapeutics, preferably orally administered therapeutics. Absent a vaccine and therapeutics, there were a number of other possible, non-pharmaceutical interventions. Hospitals were among the only workplaces that had remained open throughout the pandemic. The measures hospitals had taken to keep their workers safe might be applied in other settings. There were four important measures: hand washing, tracking symptoms, maintaining a distance of at least six feet between people, and having everyone wear a mask. The University had organized the UC Health Coordinating Committee to address COVID-19, make the UC environment safer, and coordinate the systemwide response.

Clinical trials have always provided hope for people with serious illnesses and diseases. Clinical trials for COVID-19 therapeutics were ongoing at all UC medical centers; all UC medical centers participated in Remdesivir trials. Remdesivir was approved for emergency use by the U.S. Food and Drug Administration (FDA) on May 1. UC medical centers made an important contribution to the randomized control trial that allowed for the approval of Remdesivir. Dr. Byington presented a lengthy list of other clinical trials that UC was engaged in, including convalescent plasma trials. Convalescent plasma was known as an effective treatment for viral infections and had been used in the 1918 pandemic, against the Ebola virus, and against other diseases. UC was also examining other drugs, some of which had been developed for other purposes, and testing their effectiveness against COVID-19. These trials would provide important information that would guide the treatment of COVID-19 in the months and years to come. UC was also working on a vaccine. A vaccine patch with technology developed at UC Davis would allow people to deliver the vaccine in their own home. Dr. Byington hoped that this patch would move into clinical trials in the summer.

On April 28, UC Health released a set of guidelines for UC hospitals on the safe resumption of essential services, ten principles that would guide all UC healthcare facilities. The resumption of essential services not related to COVID-19 depended on UC Health's readiness for a future surge of COVID-19. UC Health had learned from its experiences since it began caring for patients with COVID-19 and knew that, if necessary, it could empty its hospitals in preparation for a surge within two to three days.

Telehealth had been one means of reducing patient density in the hospitals and allowing for appropriate social distancing. Before the pandemic, about two percent of UC Health patient visits were carried out via telehealth. UC Health was once again increasing its in-person visits, so that, currently, patient visits were about half in-patient and half via telehealth. Ambulatory visit volume was now at 70 percent of pre-pandemic levels. UC Health was making progress in bringing patients back. Dr. Byington presented charts showing volumes of UC San Diego ambulatory patient visits, comparing in-person and telehealth visits by medical specialty. This was new information and knowledge for UC Health, which was learning which type of patient visits can most suitably be accomplished via telehealth. Telehealth visits would continue to be an important asset and resource for UC Health during recovery from the pandemic.

Dr. Byington commented on the importance of wearing masks. At the beginning of the pandemic, it was sometimes stated that masks should be reserved for medical providers and those in the hospital environment. Much had been learned since that time about the transmission of COVID-19, including the likelihood of transmission by people without symptoms. This new information made it important for everyone to wear a mask when in public. Even if masks were only 50 to 60 percent effective, wearing them would reduce the R nought value below one and make environments safer. UCLA Health had led the way in developing guidelines for universal testing and masking. UC Health was now testing all admitted patients systemwide for COVID-19 and asking that all visitors, vendors, and staff have their temperatures taken and be screened for symptoms. UC Health recommended universal masking and had always employed excellent hand hygiene and personal protective equipment. This had made UC hospitals safe for their workers. Dr. Byington presented a chart with testing results for UC San Diego Medical Center employees. Nearly 2,500 healthcare workers in high-risk situations had been tested for COVID-19 with the nasal swab test, and only one tested positive. A comparable number of employees were tested using antibody testing, and less than one percent tested positive.

UC Health had been able to bring back patient volume. At the peak of the pandemic, as UC Health was following the orders of the federal and State government, its inpatient census declined to between 40 percent and 50 percent of normal levels. At this time, UC Health was at 74 percent of its licensed bed occupancy rate, and the occupancy rate was increasing. A number of medical centers were at 80 percent or more pre-pandemic volume. At an upcoming retreat meeting in July, UC Health would be planning for its future, with the expectation that COVID-19 would be in its environment for the next two years or so.

As UC Health had become more confident about the safety of its hospitals and its ability to deliver essential care as well as care for COVID-19 patients, the UC Health Coordinating Committee was now working with the campuses to help design plans to make campus environments as safe as UC hospital environments. As UC Health's capacity had exceeded the UC system's needs, it continued

to share its expertise with health systems that needed assistance. Healthcare workers from UCSF had been sent to New York and to the Navajo Nation. UC San Diego Health faculty have gone to Tijuana to assist in hospitals which had been overwhelmed by increases in COVID-19 patients. UC Health was proud to be able to provide this assistance, and this was part of UC Health's mission.

About five months had passed since UC Health had first learned of COVID-19, and there had been two months of sheltering in place in California. This had been a short time, but there had been profound changes. During this time of anxiety and uncertainty, much had been learned about the virus and what would be necessary to defeat it. The UC system was one of the institutions in the world best prepared to combat COVID-19. The pandemic provided opportunities to take what UC Health has learned about collaboration, communication, preparedness, resilience, and service to become an even stronger organization. The strength of the UC system and of UC Health was in its people, and Dr. Byington expressed her confidence that the UC system would prevail over the challenges of this pandemic.

Committee Chair Lansing asked if there were projections for mortality rates when the economy opened again and sheltering in place measures were relaxed. Dr. Byington responded that the artificial intelligence-informed model she had presented did take sheltering in place and other restrictions into account. As orders were eased, this model would change.

Committee Chair Lansing asked about the possibility of a very quick test for the virus that could be used to test people before they enter a restaurant or other business. Dr. Byington responded that a great deal of research was under way on this type of "point of care" testing. The development of such a test was a real possibility, but nothing like this was available at this time.

Regent Makarechian expressed concern that testing might give one a false sense of security. An individual might test negative, then become infected, and spread the virus. He asked about the rationale for testing. He also asked about the lowest-cost, accurate test currently available. Dr. Byington responded that she was confident that the tests being used by UC Health were accurate. With regard to the need for testing, she stressed that when people test positive, action needs to be taken. Individuals need to know that they have tested positive, they might need medical care, and they must be isolated from others to avoid spreading the infection. People they were in contact with also need to be evaluated. This was the most important reason for testing. She acknowledged that an individual might test negative, come to work, and then become infected; however, that individual would not immediately begin transmitting the virus. There would be an incubation period which might last several days. With regard to testing costs, the cost of Clinical Laboratory Improvement Amendments (CLIA)-certified tests ranged from \$50 to \$120. The cost at UC Health, for testing UC's own healthcare workers and students, was \$40. Pooling tests would lower the cost. There was much research under way to bring down this cost.

Regent Makarechian asked about the cost of testing all UC staff and students, which, at \$40 per test, would be in the millions of dollars per day. Dr. Byington responded that this cost would be approximately \$25 million per week. The University clearly would not be able to test people every day. This was the reason for epidemiological modeling, which would help to determine the minimum number of people one can test to understand the likelihood of the virus being present.

There would always be some risk, and the response would be risk reduction measures, such as testing, wearing masks, and social distancing. The combined effect of these measures, carried out consistently and with accountability, would provide safety.

Regent Makarechian asked if UC Health was keeping track of COVID-19 information from other countries. Dr. Byington responded in the affirmative. One of the positive results of the pandemic was the willingness of organizations to share data. UC Health was able to track data from other countries daily. Video conferencing technology allowed for meetings with international participation. UC Health was sharing best practices with colleagues in China and Italy.

Regent Makarechian asked about the negative effect on the environment caused by the widespread use of disposable gloves and gowns. Dr. Byington responded that environmental waste from personal protective equipment was a concern. She was concerned about the use of gloves outside the hospital environment because gloves can be contaminated. If people were not trained in the proper use of gloves, they might be at risk of infecting themselves. Rather than the indiscriminate use of gloves outside hospitals, Dr. Byington would prefer that people use hand sanitizer and wash their hands carefully and frequently. Washing one's hands every two hours would reduce the risk of transmission. Hand hygiene was very important.

Committee Chair Lansing asked about the situation of an individual who tests negative, goes to work, and becomes infected. She asked about the odds that this person would not be infecting others that day. Dr. Byington responded that chances were good that, when people tested negative, they were not transmitting the virus in normal working circumstances, and especially if they and others wore masks. Committee Chair Lansing asked about an individual in the final day of an incubation period. Dr. Byington responded that testing would not discover the exact minute or hour when an individual began to become infectious, but the virus would likely be detected in the nose or mouth by the next day. One interesting feature of this virus was that an individual could carry high loads of the virus early in the infection.

Regent Um referred to the high cost of regular testing for all students, faculty, and staff at UC. He asked about the appropriate level of testing that would allow people to return to campuses. Dr. Byington responded that UC Health had established a diagnostic testing and contact tracing task force to work on these questions, with representation from all the campuses. The task force was considering various models, the minimum amount of testing that would be possible, and what level of security that testing would provide. There would not be a "magic" or perfect number for testing, but there were interventions the University could carry out to make campuses safer, such as lowering the density of people on campus, having the return to campus occur in stages, and different forms of offering coursework. UC was an innovative university that could lead in this area. The University needed to study this process, determine which approaches were effective or not effective, and share this information. Regent Um observed that the situation of every campus would be different and that there would be a great deal of pressure on UC's decision-makers.

Advisory member Hetts remarked that UC hospitals were some of the safest places to be and asked how this could best be communicated to the public. He stated his concern about deaths not due to COVID-19 but indirectly due to the situation of the pandemic; people were dying at home of heart attacks and strokes because they were afraid to come to the hospital. He asked about UC Health's

messaging strategy for patients and the public. Dr. Byington responded that she was concerned about people deferring essential health care. UC Health was trying to broadcast a simple public health message that UC hospitals were safe and able to treat patients for other essential health needs. UC Health was working with other health systems to advertise these messages as well as contacting individual UC patients with critical needs. Since UC hospitals had reopened for patients other than COVID-19 patients two weeks prior, the number of returning patients had been on the rise; word of mouth contributed to patients' sense that it was safe to return. UC hospitals were tracking figures daily and balancing patient census, available personal protective equipment, and the status of COVID-19 in the community. This would probably characterize UC Health operations for the next few years.

Committee Chair Lansing commented that Governor Newsom, San Francisco Bay Area leaders, and Los Angeles Mayor Eric Garcetti had stood firm in promoting best practices for public health and safety.

Regent Kounalakis noted that Dr. Byington's expertise in the field of infectious diseases had been put to good use by the State as it contemplated reopening. Regent Kounalakis asked about the collection of information on the spread of the virus in hospitals. With the measures put in place in UC hospitals, the infection rate among UC healthcare workers had been reduced to almost zero. There were only limited data available on the spread of the virus since the shelter in place and shutdown measures. She asked if UC Health was publishing this information so that other hospitals and institutions could use protocols and models that had been successful at UC. Many of the new cases of COVID-19 in California had come from convalescent hospitals and nursing homes. She asked why the spread of the virus was continuing in those environments. She asked how the lessons learned in UC hospitals might be applied to ensure that California could safely reopen businesses and other entities. Dr. Byington responded that UC was publishing information about the measures taken in UC hospitals to prevent infection. Nursing homes were different from hospitals and had different infection prevention practices. The nursing home environment had more congregating, shared dining rooms, and sometimes shared bathrooms, and personal protective equipment was not used the way it would be in a hospital. About 35 percent of the California COVID-19 deaths were occurring in nursing homes. UC Health was working to help in areas where it could, such as delivering testing. These efforts were on the local level. At the state level, more attention needed to be paid to requirements for nursing homes and the question of who would provide them with personal protective equipment, training, and testing. This process would be repeated throughout industries and organizations, including educational institutions. Dr. Byington anticipated an increase of COVID-19 cases in the fall as well as the circulation of influenza, and it would be necessary to recommend keeping the density of workplaces or other environments as low as possible. This might mean staggering the times when people enter or exit a building or elevator. There must be sufficient materials for hand washing, either soap and water or hand sanitizer. Temperatures and symptoms must be tracked. Social distancing measures must be maintained, and people needed to wear masks. One could recommend all these measures, but a culture of accountability was necessary. Members of society needed to be accountable to one another.

Faculty Representative Bhavnani expressed concern about use of the term "surveillance" when one considered that certain groups were more vulnerable to COVID-19 than others. This might be just a term, but it might represent certain practices or suggest something like racial profiling.

Dr. Byington responded that she had heard concerns about this use of the term “surveillance” in other venues. As an epidemiological and medical term, “surveillance” was not meant to have those implications. UC Health was very much concerned about equity, fairness, and representation. While Dr. Byington could not change the term “epidemiological surveillance,” she hoped that UC Health would serve as a model of not placing an undue burden on any one group, but responding equitably, asking people to perform similar functions in the workplace. COVID-19 outbreaks might occur in one or another group, and the response should not be seen as targeting that particular group but as an attempt to eliminate COVID-19. Education about the meaning of the term “surveillance” in an epidemiological context would be desirable. Ms. Bhavnani recalled that gay men were targeted in many ways during the AIDS crisis. During the current pandemic, people perceived to be of East Asian origin had been targeted. There was a need for broader discussions in society about this issue.

Regent Leib asked about the accuracy of antibody testing and if it was a good indicator. He also asked if UC research and activities outdoors might be safer than indoor activities on campus as UC began to reopen. Dr. Byington responded that she believed that antibody testing would prove valuable. There had been a rush to develop antibody tests, which are complex to design and validate. Antibody tests used by UC Health had been validated. Almost 20 different antibody tests had been validated at this point, and three were being used in the UC system. A greater concern with regard to antibody testing had been the emergence of “pop-up” laboratories in communities and home-based tests not approved by the FDA. Dr. Byington would discourage the use of these types of tests and would advise receiving an antibody test only at the direction of a healthcare provider or public health official. Another relevant factor was the fact that only a small portion of the U.S. population had been infected so far. These tests depended on the baseline prevalence in the community. When that baseline was low, a positive test might be a false positive. All tests have some rate of false positive and false negative results. It was not yet known how long the antibodies lasted and whether they protected against COVID-19. There was still much that needed to be understood in order to interpret antibody testing. Dr. Byington anticipated that more would be known in a year and that antibody testing would be an important element of the response to COVID-19. In response to Regent Leib’s question about indoor and outdoor activities, Dr. Byington noted that air circulation and movement was a relevant factor in COVID-19 transmission. Activities that took place in the open air without crowding were likely to be safer than activities indoors, especially if air circulation was poor in an indoor environment. Many UC campuses had good weather all year long, so coursework or other activities might take place on campuses outdoors.

Regent Butler asked about any insights pertaining to student health during this pandemic. There were still students on UC campuses, and Regent Butler assumed that the student health centers were still functioning. She asked if best practices from the medical centers were being applied to the student health centers. Dr. Byington responded that all student health facilities were open and operating. All practices from medical centers had been shared with student health centers. Work had been done on the UC Student Health Insurance Plan (UC SHIP) to ensure that students could maintain their health insurance and that telehealth visits would be covered. A great deal of planning for the fall was under way, with questions of how the number of students on campus and the number studying remotely would affect the delivery of health care. Measures taken at the medical

centers, such as personal protective equipment and plexiglass barriers, were also being implemented at student health centers.

Regent Butler asked about the testing of students on campuses and about test results. Dr. Byington responded that about 35 to 40 students, faculty, and staff on campuses had tested positive. These individuals were on campuses and not in the medical centers. This was a very low number compared to the total population of the campuses. The number was low because UC acted early to lower density on campuses. There was also a pilot program under way at UC San Diego which had begun the prior week. Some of the students still on campus had volunteered to participate and were collecting nasal swab specimens for testing. About 500 students had been tested the previous week, and all tested negative.

Regent Butler asked about the status of efforts to build an infrastructure for contact tracing. Dr. Byington responded that UCSF Professor George Rutherford was the principal investigator on this contract with the State. UCSF and UCLA were working together to train workers across California. UC Health was also working on bringing these efforts to the campuses and trying to determine how many contact tracers might be needed on campuses and how they might carry out this work. If UC did this work under the auspices of the California Department of Public Health, it would need delegated authority from County public health departments. Plans for the campuses had not yet been made. UC Health was investigating different approaches and would present options to the chancellors by June 1.

Committee Chair Lansing asked that a one-page summary about the UC San Diego pilot testing program be distributed to the Regents.

Regent Makarechian asked about the position of the Centers for Disease Control and Prevention (CDC) on the spread of the virus from contaminated surfaces. The CDC appeared to have changed its view on this question. Dr. Byington responded that, essentially, the report in question indicated that the primary mode of transmission was from person to person; however, this did not eliminate other possibilities.

Student observer Noah Danesh referred to the contact tracing training program just mentioned. California would need tens of thousands of contact tracers in the coming months. Many graduating seniors had lost internships and research and job opportunities. There was an opportunity for this large pool of UC graduates to become contact tracers through the program UC was developing for the state. This would provide a job for these graduates in the interim, and they would help communities across California reopen safely. With its increasing testing capacity, the UC system was in a strong position for reopening. Mr. Danesh emphasized the importance of recurring testing on campuses and of improved options for UC SHIP, so that students would not be worried about receiving the care they needed. With regard to the campuses' decisions about how to deliver classes in the fall, he stated that there was great potential for delivering large lectures online, but having small discussion sections in person, so that students could still receive personal instruction and benefit from peer learning while following social distancing guidelines. Educating students about the fundamentals of COVID-19 should also be a priority. A brief standardized online overview could explain symptoms, the reasons for wearing masks, and in which environments the virus is most likely to spread. If students have a better understanding of the underlying factors of COVID-

19, they will make safer, better informed decisions in their day-to-day life on campus. Mr. Danesh stressed the importance of mental health care for students. Feelings of loneliness and isolation were already prevalent among students before the pandemic, which had exasperated these issues. Students should not defer the care that they need. Many students were now at home or in places where they could not openly discuss their mental health challenges via telehealth visits. In addition to telehealth services, UC should also offer more discreet forms of contact, such as secure private messaging with counselors. Mr. Danesh referred to the discussion and proposed action to take place the following day about the use of standardized tests in UC undergraduate admissions. This would also be an opportunity to examine entrance requirements for UC medical schools and graduate schools. The COVID-19 pandemic had underscored inequities faced by underrepresented students, including lack of access to technology and other services. Mr. Danesh believed that the pandemic was pushing the University to consider how it could reform the application process to be much more considerate of UC's diverse population of applicants.

The meeting adjourned at 12:00 p.m.

Attest:

Secretary and Chief of Staff