The Regents of the University of California

HEALTH SERVICES COMMITTEE
October 9, 2018

The Health Services Committee met on the above date by teleconference at the following locations: Plaza Room, De Neve Plaza, Los Angeles campus; Suite 340, 1130 K Street, Sacramento.

Members present: Regents Lansing, Sherman, and Zettel; Ex officio members Kieffer and Napolitano; Executive Vice President Stobo; Chancellors Block and Hawgood; Advisory members Hernandez and Hetts

In attendance: Regents Graves, Guber, Leib, and Park, Faculty Representative May, Secretary and Chief of Staff Shaw, General Counsel Robinson, and Executive Vice President and Chief Operating Officer Nava

The meeting convened at 11:05 a.m. with Committee Chair Lansing presiding.

1. **PUBLIC COMMENT**

Dr. Reshma Ramachandran, a physician at the UCLA Kaiser Permanente Family Medicine residency program and a board member of Universities Allied for Essential Medicines, discussed the prostate cancer drug Enzalutamide, also known as Xtandi, which was discovered at UCLA. The patent for the drug was licensed to Medivation, which was then acquired by Pfizer. Pfizer had pursued a patent claim in India and appealed a negative decision; Dr. Ramachandran asked that the University drop the patent claim and appeal in India. There is a need for this drug in India, but it is not affordable for people with an average salary there, and even for U.S. patients on Medicare, this is a costly medication. The case might set a negative precedent, indicating that universities can be compelled by pharmaceutical companies to which they have licensed drugs to file such claims, and it could have a chilling effect on generic drug manufacturers in India, discouraging them from pursuing the development of more affordable versions of this drug. Dr. Ramachandran urged the University to pursue sustainable ways to ensure access to this drug, such as licensing the drug to the Medicines Patent Pool or engaging directly with generic manufacturers.

2. **APPROVAL OF MINUTES OF PREVIOUS MEETING**

Upon motion duly made and seconded, the minutes of the meeting of August 14, 2018 were approved.

3. **REMARKS OF THE EXECUTIVE VICE PRESIDENT – UC HEALTH**

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

Executive Vice President Stobo briefly remarked on financial indicators for the medical centers at the fiscal year end, which were positive for modified operating income, modified interest, days' cash on hand, and debt service coverage.

Dr. Stobo recalled that certain authorities had been delegated to the Health Services Committee by the full Board of Regents, actions which can be taken by the Committee and do not require approval by the Board. These delegated authorities lie in three areas: transactions, compensation, and capital projects. Transactions may be approved by local authority, by the Health Services Committee, or by the full Board, depending on factors such as dollar threshold, number of medical centers involved, or whether real estate is involved. Approval by local authority is approval by the chancellor, the Chair of the Health Services Committee, and the President or a designee. Committee Chair Lansing emphasized that all members of the Board should have a clear understanding of these authorities, and that the authorities of the Committee are limited.

Dr. Stobo then outlined which types of appointment and compensation actions are delegated to the Committee, and the process for approval of Health Services Market Reference Zones, as well as the Committee's review of capital projects related to patient care or strategically important to UC Health before such projects are forwarded to the Finance and Capital Strategies Committee. In Dr. Stobo's view, the Health Services Committee's delegated authorities were fairly well circumscribed and not open-ended.

Chair Kieffer suggested that this information be provided to the full Board at a future meeting. It would be especially useful for the new members of the Board. He reflected that delegating authorities from the full Board to the Health Services Committee had been desirable, a movement in the right direction. Chair Kieffer voiced a concern about whether the Committee had a large enough number of committed members who would engage with issues in depth and treat the Committee almost as a separate board in order to do the work that the Regents expected of this Committee.

Dr. Stobo noted that the Committee's work would become even more important in the future, given changes in the healthcare arena and the increasing financial impact of UC Health on the rest of the University. He recalled that the delegated authorities as they now existed had been developed over the course of a year, with much discussion by the full Board. As the Board becomes more comfortable with delegated authorities, the Health Services Committee could be allowed to do more.

Chair Kieffer remarked that certain matters cannot be easily or effectively discussed with a large board, such as the Board of Regents. A certain number of Regents must develop significant expertise in this area, and the Board would also rely on full engagement by the Committee's advisory members.

Committee Chair Lansing concluded that whoever serves on this Committee must be fully engaged and attend all meetings.

4. **UNIVERSITY OF CALIFORNIA CARDIAC SURGERY CONSORTIUM**

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

Executive Vice President Stobo recalled that five years prior, the chiefs of the cardiothoracic programs of the five UC medical centers decided to work together to address cost and quality issues related to cardiac surgery. UC Health facilitated a meeting of these committed individuals, and their efforts over the past five years had produced remarkable results. The leader of this group was Richard Shemin, M.D., Chief of Cardiothoracic Surgery at UCLA Health.

Dr. Shemin began his presentation by describing the Cardiac Surgery Consortium as an ambitious project. Cardiac surgery is a costly, high-end medical service. The Consortium had been initiated in 2012. The goal was to develop a large-scale performance improvement project that would be led by the chiefs of cardiac surgery at UC.

The medical centers already had robust data sets on clinical outcomes, and analysis of these data is critical. A standard in this profession is the database of the Society of Thoracic Surgeons. This database has been in existence for 20 years, has more than eight million records, and is used to evaluate outcomes in cardiac surgery, with standard definitions, at the local and national levels. This database served as a model and there was no need for UC to develop or invent a new type of database. In order to be able to gather and share these data, a certain amount of trust is required, as well as regular meetings to analyze data and determine best practices for implementation. It quickly became clear that examining clinical data alone would not be sufficient. The participants were interested in how decisions made at the bedside of a patient affect the finances of patient care. They were concerned about the fact that UC was often identified as one of the most expensive healthcare providers and wished to examine data in detail to understand how decisions about care affect cost. The Consortium participants realized that the data had to be examined in new ways, with an interactive dashboard.

The Consortium identified five major projects or topic areas. The first was patient mortality, defined as patient death within 30 days of heart surgery. Patient mortality is publicly reported in many states, and this information is available in Centers for Medicare and Medicaid Services (CMS) and other databases. Patient mortality is an important factor in hospital rankings. The second topic was early extubation. Dr. Shemin noted that the two most significant cost factors for patients in the course of hospitalization are the day spent in the operating room and the time spent in the intensive care unit. When the patient's breathing tube is removed, this marks the end of the time spent in the intensive care unit. The Consortium found that patients were spending a day or more on a breathing tube unnecessarily. It was of interest to develop intensive care protocols to shorten this and enhance the recovery time. The third topic was atrial fibrillation, the most common type of arrhythmia that patients experience after heart surgery. It can occur in over 35 percent of patients and lead to the need for medications, anticoagulation, or shocking the heart back into rhythm. Disturbance in heart rhythm has a significant impact on morbidity, patient

satisfaction, and frustration in the care of the patient. The Consortium considered whether it would be possible to prevent this by identifying high-risk populations and developing strategies to reduce the incidence of this complication. The fourth topic was patient readmissions. Currently readmissions were paid for, but there would soon be a CMS penalty for readmissions, a lack of reimbursement. The fifth topic was blood utilization.

The Consortium then turned to the task of developing an interactive dashboard and interviewed four potential vendors over six months, vendors who would not simply input UC data into an existing database, but create a new database, unique and adapted to the University's needs. This had not existed before; UC hospitals had raw data, but not presented in a way that was easy to analyze. The contract was awarded to Biome, and the work over the past four years had been successful, with the development of an interactive, web-based, Health Insurance Portability and Accountability Act-compliant secure data set. This has allowed UC Health to analyze data on a quarterly and annual basis and to compare UC hospitals to national and UC benchmarks. Once financial and clinical data are brought together, the University would be able to review any single record or patient, looking at even small details of patient care to analyze the cost and utilization of different types of resources.

Dr. Shemin presented an example of these data, a chart with information on isolated coronary artery bypass operations, one of the most common procedures performed in the U.S. and a national benchmark. "Isolated" indicated that no other procedures were attached to this operation. The chart indicated risk-adjusted mortality associated with this procedure at UC medical centers over a number of years compared to the 2.3 percent national benchmark. There was variation among the medical centers. Each medical center reviews its own data and pursues improvements. For the most part, UC medical centers were at a mortality rate of one percent or less during the past calendar year.

Public transparency regarding outcomes is very important. Early on, UCLA decided to allow public transparency and publication of its data, such as data on its performance of heart valve surgery, which earned it the highest "three star" national rating. Now the data for all sites would be publicized, in an effort to be recognized as UC Health and develop the reputation of the entire system at its five sites.

Dr. Shemin then presented a chart with data from over 2,000 patients on new onset atrial fibrillation complications associated with isolated coronary artery bypass operations. The medical centers' efforts to control this arrhythmia had resulted in improvements, and all UC medical centers were below the national benchmark. While this arrhythmia would never be eliminated, UC had developed algorithms to identify high-risk patients and determine appropriate preoperative drug protocols to reduce the incidence of atrial fibrillation and make it easier to treat.

Dr. Shemin presented an example of how patient data could be analyzed in different and unique ways. In the case of atrial fibrillation associated with coronary bypass operations, the Consortium posed the question of how many of 2,000 or more patients go through their entire hospitalization without any complications, and if it was possible to profile these

patients. The Consortium identified about 1,500 such patients, or about 65 percent of this patient population. The direct cost was $40,000, the average time in the intensive care unit was 67 hours, the length of stay was 5.7 days, the readmission rate was nine percent, and the operative mortality was zero. A patient can have a number of different kinds of complications. The database allowed one to determine the additional cost and time for a patient with atrial fibrillation, but no other complications. The cost would increase by about $2,500. Time in the intensive care unit would increase by a few hours, and length of stay would increase from 5.7 days to 6.9 days. The readmission rate would increase from nine percent to 11 percent, and mortality would increase to 0.7 percent. While $2,500 might not appear to be a large amount in relation to $40,000, the additional cost for 300 patients with atrial fibrillation would amount to $750,000. The additional postoperative length of stay, 1.2 days, for 300 patients, could potentially equal 360 bed days. All the UC medical centers were 100 percent full. Gaining efficiency and avoiding a longer length of stay represented an opportunity to capture more bed days.

Dr. Shemin anticipated that the implementation of a three percent penalty by CMS for patient readmissions would have a significant impact. Hospitals are evaluated and compared based on readmission rates, which would never equal zero. There is a cost of investment in order to reduce readmissions in outpatient services and ensure that cases are better managed after discharge. Readmissions within two weeks after surgery usually involve emergency room services and an inpatient bed, and this is not efficient. UCLA's approach was to institute daily telephone calls to the patient by a nurse practitioner with a detailed questionnaire, and use this to identify patients who needed to be seen sooner. UCLA had also embraced telemedicine, sending patients home with a small iPad or iPhone, and equipment that allows patients to measure their own vital signs. This information is transmitted to a database and reviewed daily by a nurse, and UCLA can have Skype interviews with patients. This allows UCLA to adjust medications as though the patient were still in the hospital. If there is an adverse trend, the patient is called in. UCLA has been recognized as a leader in the use of telemedicine in postoperative care. This use of telemedicine could be extended to other departments and areas of patient care at UC medical centers.

The Cardiac Surgery Consortium wishes cardiac surgery to be a profitable service line for UC Health. Profits from these services can be reinvested in cardiology, with excess funds available to support the mission of UC medical centers. The contribution margin of cardiac surgery to UC Health, net revenue minus direct cost, had increased steadily from 2013 to 2017.

Dr. Shemin outlined future opportunities. While each medical center has pride in its unique strengths, there would be an effort toward establishing the identity of cardiac surgery at UC Health systemwide. Working as a system would allow UC Health to provide the various levels of intensity of care that are required for different kinds of cardiac procedures. There would be discussions about whether all five sites need to provide all kinds of cardiac surgery, or whether there should be specialization at various sites and sharing of patients, when appropriate. The Consortium was considering increased use of joint purchasing, and would explore marketing and contracting opportunities. The Consortium wished to

increase volume and capacity. UC Health was beginning to approach the volume of major centers of cardiac surgery in the U.S., such as the Mayo Clinic or the Cleveland Clinic. In hospital rankings, UC medical centers rank as high as these major centers in patient safety, mortality, and other areas, but lag behind in volume. In order to overcome this lag, UC's cardiac surgery programs would have to work collaboratively. Dr. Shemin emphasized his view that the Consortium was deserving of the support of UC Health and the Office of the President. The combination of clinical and financial data would continue to provide insights in how to improve care. Sharing of best practices would be extremely important, as well as understanding and removing barriers to implementing change. It is necessary to have trending data over time in order to demonstrate convincingly the success of a particular approach or method.

Committee Chair Lansing stated that this was an impressive example of how the UC Health system can work together. She referred to the chart shown earlier indicating rates of risk-adjusted mortality for isolated coronary artery bypass operations, noting that there was some significant variation among the medical centers, and asked how UC Health would address this. Dr. Shemin responded that UC Health very diligently examines any adverse trend, failure to meet a benchmark, or lack of improvement. He explained that a hospital that performs only about 100 bypass operations annually, rather than 1,000, will likely lose one or two patients for a variety of reasons. The individual cases of patient mortality can be audited and studied. He cautioned that raw data and numbers can be misleading; it is important to know if numbers are statistically significant. Having sufficient resources is an important factor. From his past experience, Dr. Shemin recalled the case of a hospital in Massachusetts where new management had removed the cardiac surgery intensive care unit and specialist anesthesiologists for cardiac surgery, pursuing ill-advised cost savings that led to problems. For cardiac surgery, it is necessary for an anesthesia team, a critical care team, a cardiology team, a nursing team, and all other professionals who have contact with the patient to work in concert to achieve best results.

Committee Chair Lansing stated her assumption that if one UC medical center needs additional resources, the Consortium would determine how to make those resources available. Dr. Shemin responded that all the cardiac surgery programs had engaged with their medical center administration to ensure that the administration better understands this service line, and so that the administration assists with the Consortium's effort to engage disparate groups that work together clinically, but also need to plan and examine data together. The Consortium would discuss the resources of each medical center and an appropriate distribution of resources.

Regent Zettel commended Dr. Shemin for his leadership. She asked if telemedicine could effectively be used for outpatients, individuals who had not had the need for surgery. Dr. Shemin responded in the positive. Telemedicine is intended for outpatients. In this telemedicine program, UCLA was focused on the sensitive, 30-day postoperative care period. The program should be effective for heart failure patients. Dr. Shemin anticipated that telemedicine would improve care without excessive cost, and expressed optimism about what UC Health can accomplish in caring for patients at home.

President Napolitano congratulated Dr. Shemin and the Consortium. She asked if UCLA was the only one of the five medical centers using telemedicine in this setting. Dr. Shemin responded in the affirmative. The other medical centers were following up with patients by telephone. UCLA was hoping to show by experience that this type of telemedicine is worth the investment. Patients are not charged for this service. UCLA has a special fund that provided for 50 telemedicine kits. UCLA had begun a randomized study of telephone follow-up versus telemedicine to quantify the benefits and determine if the expense of telemedicine is justified. In response to another question by President Napolitano, Dr. Shemin stated that time and experience, and evaluation of program data would show the cost-effectiveness of the program, indicate if UCLA was overusing these telemedicine kits, and help to risk-stratify patients.

Advisory member Hetts described this program as an inspiring performance improvement project. He asked about the process of engaging various stakeholders in the care of cardiac patients in order to institute changes. Dr. Shemin responded that physicians are notorious for being independent, but observed that the healthcare realm was changing. There was recognition among all care providers that patients expect hospitals to do this type of work. Leaders in healthcare institutions were being chosen for their ability to bring people together and promote successful collaborative work. The idea of a doctor as a single practitioner with autonomy was no longer appropriate. To bring about change, it is necessary to have thorough knowledge of the entire organization, to have support at the highest administrative levels, and to hold accountable all aspects of providing complex care.

Advisory member Hernandez praised the Consortium for its use of data and its commitment to transparency. She asked about future contracting opportunities. Dr. Shemin responded that UC cardiac surgery programs had been working to increase value and lower the cost structure while guaranteeing consistent quality. Companies in California that self-fund health care and contract out might be interested in partnering with UC in order to have UC provide these types of high-end services. UC Health should identify these organizations.

Committee Chair Lansing thanked Dr. Shemin, his colleagues, and the Consortium for their extraordinary work.

5. OVERVIEW OF PLANNING EFFORTS FOR POSSIBLE FUTURE EXPANSION OF THE SCHOOL OF MEDICINE, SAN FRANCISCO CAMPUS

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

Chancellor Hawgood began the discussion by noting that planning had been under way for over a year about a possible expansion of the UCSF School of Medicine in the San Joaquin Valley. UCSF School of Medicine Dean Talmadge King provided contextual information about the San Joaquin Valley, one of the fastest-growing regions in California. Over a number of decades, its population had increased more than threefold. This region falls behind many other regions in socioeconomic and environmental indicators, with low levels

of educational attainment, high poverty rates, and poor air quality. Ten percent of the population was uninsured, while a large percentage was covered by Medi-Cal. For health outcomes, the counties of Madera, Fresno, Tulare, and Kern ranked 49th, 50th, 52nd, and 53rd, respectively, out of 58 counties in California. The San Joaquin Valley also had the lowest ratio of physicians per population in California, about 140 physicians per 100,000 inhabitants; the Inland Empire also had a low ratio. The numbers of first-year medical residents and fellows in training in the San Joaquin Valley were far lower than in other parts of the state.

Dr. King outlined the history of UCSF Fresno. In 1975 it was established as one of the first regional graduate medical education campuses in the U.S. Subsequently it entered into affiliations with Community Medical Centers, with Community Regional Medical Center, and most recently with the Family Healthcare Network, a Federally Qualified Health Center. The San Joaquin Valley Program in Medical Education (PRIME) had been transitioned from UC Davis to UCSF, with branch campus designation by the Liaison Committee on Medical Education (LCME).

UCSF Fresno's medical education program has a positive impact. Clinical experiences at Fresno enhance UCSF student education and align with UCSF's commitment to health equity. This graduate medical education program is the largest program adding physicians to the Central Valley, attracting high-quality faculty physicians to the Central Valley to lead clinical programs. With Community Regional Medical Center, UCSF Fresno serves as the major provider of subspecialty care in the region.

UCSF Fresno has 300 core faculty and 400 volunteer faculty. There are 250 resident physicians in eight medical specialties as well as oral and maxillofacial dental surgery. There are 50 fellows in training in 17 subspecialties. About 300 UCSF medical students spend some part of their training time in Fresno.

A graduate medical education program is an important strategy in addressing the physician workforce shortage. The strongest predictors of physician practice location are the residency training location and the physician's home town. Nearly 50 percent of the physicians trained at UCSF Fresno stay in the Central Valley to provide care, and in UCSF's view, this is a good model.

The UCSF School of Medicine has clinical affiliations with multiple hospitals – San Francisco General Hospital, the San Francisco Veterans Affairs Medical Center, UCSF Fresno, and UCSF Health; UCSF medical students receive training at these locations. As of 2019, UCSF Fresno would be a branch campus of UCSF. A cohort of UCSF medical students would complete years 2.5 to four of their education at UCSF Fresno. The branch campus designation indicates that UCSF Fresno has a different relationship with UCSF than the other affiliates. The LCME defines a branch or regional medical campus as an educational site where a cohort of students spends one or more years and that is distinct from but operates under the accreditation of the main medical school. Nearly 60 medical schools in the U.S. operate more than 115 branch campuses. UCSF is responsible for the educational program at UCSF Fresno. All students must meet all graduation requirements

of UCSF. The quality of clinical teaching, grading, the learning environment, student support services, and financial aid at the branch campus must be measurably comparable to the UCSF main campus.

Dr. King outlined the PRIME program structure. Students would spend the first two years at UCSF in San Francisco for basic science and clinical skills training, and additional seminars. Students would then move to UCSF Fresno, where they would take core courses and engage in advanced supervised hospital and clinical experiences providing patient care, exploring career options, and conducting scholarly work. The first class of six students would begin in 2019. The class size would grow to 12 students in the following years.

Dr. King then raised the question of possible expansion and remarked that expanding beyond a two-year PRIME program in Fresno to a full four-year branch campus would require significant investment. The assumptions for such an expansion would be that in years one through four, 12 students would be enrolled annually in the PRIME program with phase one in San Francisco and phases two and three in Fresno. The program would build faculty capacity to support basic science and early clinical skills education in collaboration with UC Merced, build classroom and administrative infrastructure at UCSF Fresno, and identify resources to provide robust student support and financial aid for targeted student populations. In years five through ten, the program would increase enrollment to classes of 50 students with all phases of education conducted in Fresno, in collaboration with UC Merced.

UCSF estimated that the development and operating costs of such an expansion in the first ten years would amount to $167.5 million, to be supported by $35 million in tuition revenue and $132.5 million in additional State support. Ongoing annual operating costs after ten years would amount to $32.8 million, requiring $11.8 million in tuition revenue and $21 million in additional State support. In order to proceed, a source of ongoing, guaranteed funding must be secured. It has been suggested that a $450 million endowment established in year one would provide interest income of $18 million per year during the first ten years. Support after ten years would require endowment growth to $537 million with a four percent return or additional annual ongoing contributions of $3.5 million. These projections do not include the cost of any required potential future infrastructure at UC Merced or a class size of more than 50 students per year.

Chair Kieffer asked about the sources of funding for this expansion. Chancellor Hawgood responded that UCSF had made it clear in its discussions about this proposal that it would not proceed beyond the current commitment to 12 students without secure, permanent funding. California State Assemblymember Adam Gray had been actively seeking support for the UCSF Fresno expansion. During the past legislative session, Mr. Gray authored Assembly Bill 2202, which was signed by Governor Brown in September. This bill establishes the University of California San Francisco San Joaquin Valley Regional Medical Education Endowment Fund in the State Treasury. Chancellor Hawgood quoted from the bill's language: "The endowment fund may receive donations and contributions from public and private entities, partnerships between public and private entities, fees, cash advances, and transfers from the General Fund as may be specified by law…. Moneys in

the endowment fund shall be allocated to the University of California, upon appropriation by the Legislature, to support the annual operating costs for the development, operation, and maintenance of a branch campus of the University of California, San Francisco, School of Medicine in the San Joaquin Valley…. The balance of the endowment fund shall not be deemed sufficient until a balance of $500 million is achieved and maintained in the endowment fund….” The University ultimately supported this bill as a way of demonstrating its appreciation for Mr. Gray’s good faith efforts to work with UCSF on a shared aim of expanding access to medical education and health care in the San Joaquin Valley. UCSF was also pleased that the bill’s language protects the University from being mandated to expand medical education in the region beyond the 12 students until sufficient, stable funding, defined as an endowment of $500 million, is available. It was important to recognize that the bill did not provide any resources for this fund. Mr. Gray regarded this as a starting point for future advocacy for funding from public and private sources toward the goal of expanding classes from 12 to 50 students when and only if the endowment of $500 million is secured. Chancellor Hawgood noted that there was tremendous political pressure on the University to proceed with this expansion, but UC would resist this pressure until stable funding was available.

Committee Chair Lansing observed that the political pressure alluded to by Chancellor Hawgood somewhat recalled the situation of the Martin Luther King, Jr. Community Hospital in Los Angeles, one of UC Health’s most successful public-private partnerships.

Chair Kieffer asked about UCSF’s expectation of philanthropy. Chancellor Hawgood responded that UCSF had made it clear in discussions with Mr. Gray and other politicians that UCSF did not have a path to any guaranteed funding. UCSF was open to seeking philanthropic support in the San Joaquin Valley, but had not yet committed any philanthropic funds to this project.

UC Riverside School of Medicine Dean Deborah Deas underscored the high cost of medical education. Funding of $132 million was required for 50 medical students. The UCR School of Medicine currently had 70 students and was receiving $15 million in State funding. The School was undercapitalized. As UC Health considered expansion, it should recognize the situation of the UCR School of Medicine and not move forward when one of its medical schools, a four-year program, was in an underfunded state. Chancellor Hawgood responded that UCSF would proceed with this project only if the State provided funding, and that UCSF supported additional State funding for UCR. He stressed that UCSF would not proceed at the expense of UCR. In response to a question by Committee Chair Lansing, Dr. Deas confirmed that advocacy for UCR was ongoing. There was general agreement that the UCR School of Medicine was undercapitalized.

Committee Chair Lansing asked how the Regents could help with advocacy for UCR. Executive Vice President Stobo stated that he and President Napolitano had tasked a group to visit UCR and develop a report on options to address the UCR funding situation. He suggested that he could present the conclusions of this report to the Committee at a future meeting.

Advisory member Hernandez emphasized that the lack of physicians in both the San Joaquin Valley and the Inland Empire was significant, and reflected a 40-year lack of investment by the State in this critical infrastructure. She noted President Napolitano's role as co-chair of the California Future Health Workforce Commission. One goal of this Commission is to issue recommendations for the new Governor's administration about where to make these kinds of investments. This matter raised the question of how much funding should come from the State, counties, and local health plans, who have an interest in ensuring that there is an adequate provider network. The Commission was considering not only the public sector, but public sector needs are well documented. Dr. Hernandez expressed appreciation for UCSF's effort in the San Joaquin Valley. With regard to funding, she advised the University to consider not only philanthropy, but the healthcare delivery systems and health plans that are required to ensure that there is an adequate workforce.

Regent Leib asked how much effort UCSF would be making to secure philanthropy rather than relying on State funding. The cost analysis showed that $500 million would be needed to produce interest income. This would be difficult for the State to provide, while donors might be interested in having this positive impact on the Central Valley. Chancellor Hawgood responded that UCSF's development group had carried out a preliminary study of potential philanthropy. For UCSF, this would be a new set of donors. UCSF was not optimistic about the ability to raise these sums of money through philanthropy alone. Costs would include an expansion of the medical education building in Fresno that is owned and operated by UCSF and expansion of medical education on the Merced campus. Of the approximately $32 million annual cost of operating the medical school, $20 million would have to come from sources other than tuition, and UCSF did not see this as a likely opportunity for philanthropy, at least based on its study so far. There was considerable wealth in the San Joaquin Valley and community support for this concept, but UCSF had not identified a substantial source of philanthropy at this time.

President Napolitano stated that the UCR School of Medicine and the expansion of UCSF in the San Joaquin Valley were both important projects. In her view, both were in the development stage. The UCR School of Medicine was further along but needed more financial support. The concept of the endowment for the UCSF project was to make clear that while the University's intention is to provide more medical education in the San Joaquin Valley, there are preconditions that must be met before UC could expand this program to 50 students per class. Assemblymember Gray had been extraordinarily active and believed that he could marshal local public resources to build up the endowment. The University would support these efforts, but was also very much intent on providing additional resources for the UCR School of Medicine, whose graduates were now practicing medicine in the Inland Empire. Both projects had significant merit and financial challenges.

Regent Park referred to Dr. Hernandez's comments on including health plans and other stakeholders involved in healthcare delivery in funding. She asked how realistic it could be to expect that people on their own would contribute to the University's efforts without being compelled in some way. Chancellor Hawgood responded that UCSF had waited for

the Assembly bill to be signed as a sign of good faith before UCSF would engage with Mr. Gray and others in developing a path to full funding. He noted that a little bit of success increases the political pressure to proceed with the project, even without adequate funding. The University should resist such pressure until the project was adequately funded.

Dr. Hernandez observed that compelling entities to do the right thing can be a long process. Health plans, in particular Medicaid plans, are extensive in the San Joaquin Valley and the Inland Empire, serving a large segment of the Medicaid population. There are requirements for these plans to provide adequate networks. One could not achieve this goal purely by compelling participation, but there were potential partners with assets who care about these issues.

Dr. Stobo observed that the Inland Empire community had a vested interest in the UCR School of Medicine.

6. **UNIVERSITY OF CALIFORNIA OFFICE OF THE PRESIDENT RESTRUCTURING EFFORT: UC HEALTH ADVISORY COMMITTEE UPDATE**

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

Regent Sherman recalled that the UC Health Advisory Committee had made a presentation at the September Regents meeting, including its recommendation that a proposed entity within UC Health, the UC Healthcare Collaborative, be exempted from the budget and headcount constraints that apply to the Office of the President (UCOP). Questions had been raised about this recommendation, and the Advisory Committee wished to respond to those questions now. Regent Sherman emphasized that under the Advisory Committee's recommendations, the Regents' authority would remain unchanged. Regents would have full authority over the UCOP budget, which includes UC Health, which in turn would include the UC Healthcare Collaborative. UC Health, the UC Healthcare Collaborative, and all the medical centers would still be subject to Regents' authority as set forth in the Health Services Committee charter. All the previously existing checks and balances would still be in place.

Executive Vice President and Chief Operating Officer Nava explained that in addition to the budget controls just mentioned, a number of other checks and balances would provide oversight of the new UC Healthcare Collaborative budget and full-time equivalent (FTE) management employees. One of the recommendations calls for investments in the Collaborative to be guided by the UC Health multi-year strategic plan, a key guiding document that would provide the framework for budget and hiring. The strategic plan is reviewed by UC Health, the chancellors, and the Health Services Committee. Another recommendation calls for the development of a staffing plan that correlates with the strategic plan and outlines the programs and FTEs that would be required to support the strategic plan. The staffing plan would also require several layers of review. Activities funded through the Collaborative would be funded by medical center clinical revenues. Chancellors and chief executive officers of the medical centers would review and have

input into these activities. The Executive Budget Committee, which includes leadership from each campus, reviews the UCOP budget, including the UC Health budget, and this provides another layer of campus oversight.

The UC Health strategic plan would be updated and presented to the Health Services Committee on an annual basis. Ms. Nava expressed her conviction that there were adequate layers of checks and balances throughout the process. All recommendations in the Advisory Committee report were under the President's purview.

Regent Park observed that revenues generated by the UC Health enterprise would likely increase in the future, and she asked about approval authority for use of these revenues. Ms. Nava stated that the medical center chief executive officers, the Executive Vice President, and the chancellors might identify an opportunity to invest in a project. There would be discussion, and the project would be integrated into the strategic plan. The plan would be reviewed, and a budget increase would then be approved through the UCOP budget process. Dr. Stobo added that this presupposed regular meetings between the Executive Vice President, the President, and the chancellors of campuses with medical centers and medical schools. This would be the first level of approval. Chair Kieffer added that this would be part of the UCOP budget approved by the Regents in May.

Regent Park asked if UC Health funding would remain static until annual approval by the Regents. Ms. Nava responded that this was the intention, unless some action needed to be taken mid-year. A material increase in the budget would be brought to the Regents for approval.

In response to a question by Regent Park, Regent Sherman referred to the charter of the Health Services Committee, which states that the strategic plan is presented to the full Board on at least an annual basis. In addition, the Board receives a written report on all transactions approved by the Health Services Committee.

In response to a question by Chair Kieffer, Ms. Nava explained that the UCOP budget would have a section for the UC Health division, and within that section, a line for the UC Healthcare Collaborative, supported by medical center clinical revenues. Chair Kieffer asked if these figures for UC Health would be presented as a discussion item to the Board in March. Ms. Nava responded that the UC Health budget figures would only be presented in May, due to the time required to develop the budget, so that they can be based on projected actuals.

Regent Zettel observed that there appeared to be an assumption that the medical centers would be profitable. Concerns had often been voiced about future reimbursement from Medi-Cal, Medicaid, and other entities, and this has led UC Health to seek efficiencies as much as possible. She asked if UC Health had concerns about diminishing reimbursements. Ms. Nava responded that the projects contemplated through the UC Healthcare Collaborative would be designed to support the scale and operational efficiency needed to address declining revenues, such as joint procurement projects. If there were a reduction in the medical centers' contribution, this would be agreed upon by all the parties involved.

7. **CLINICAL QUALITY PRESENTATION: WORKING TOGETHER TO IMPROVE QUALITY AND REDUCE THE OCCURRENCE OF HOSPITAL-ACQUIRED PRESSURE ULCERS**

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

UCLA Health Chief Medical and Quality Officer Robert Cherry briefly reviewed some of the indicators in the current UC Health Clinical Quality Dashboard. Readmission rates had increased slightly, by one-tenth of a percent, and all UC medical centers were focusing on their top three diagnosis-related patient groups that accounted for readmissions. With regard to sepsis mortality, there were favorable figures, showing that UC medical centers were substantially below the Vizient national median. UCSF and UCLA had the highest central line-associated bloodstream infection rates, but both had seen substantial decreases in central line infections. Rates of catheter-associated urinary tract infections had increased at Irvine, San Diego and UCSF, and all three medical centers had identified opportunities for improvement. For patient experience surveys, the six-quarter trend was favorable. There were positive systemwide results for reducing excess bed days and for achieving State-mandated PRIME Medi-Cal targets.

Dr. Cherry then discussed UC Health's collaborative efforts to reduce rates of hospital-acquired pressure ulcers, which were now often also referred to as hospital-acquired pressure injuries (HAPI). He recalled that UCSF Professor Joshua Adler had discussed this topic with the Committee about a year earlier. At that time, the medical centers began working collaboratively, especially the chief nursing officers.

Dr. Cherry outlined the stages in the development of pressure ulcers, noting the importance of a standardized assessment method. It is possible to confuse pressure ulcers and traumatic injuries. Stage 1 is not associated with tissue loss and is excluded from many reporting algorithms. Stages 2 to 4 are generally reported because they are associated with tissue loss, longer stays in the hospital, and greater cost to patients. Another category, deep tissue injury, refers to intense or prolonged pressure on soft tissue, sometimes associated with shearing forces between bone and muscle. The real depth of the injury may not always be apparent to an examiner. Over time, deep tissue injuries may heal or develop into Stage 2-4 injuries. A further category is referred to as "unstageable." In these cases, discolored or dying tissue overlies the ulcer, and it is difficult to know the depth of the injury beneath this cover. These ulcers progress to one of the Stage 2-4 injuries.

Dr. Cherry presented a chart showing the percentage of patients by medical center with Stage 2 and higher hospital-acquired pressure ulcers. There had been much discussion of this among chief medical and chief nursing officers over the past year. One benchmark is the Collaborative Alliance for Nursing Outcomes (CALNOC) median. All medical centers are agreed that this is a relevant benchmark and that they should seek to move UC's levels below that benchmark. UC medical centers do not assess and measure this phenomenon in the same way; in the medical profession, there is not one recognized correct way to measure pressure ulcers. In a prevalence study, nurses measure and assess the number of pressure

ulcers in the hospital on a particular day, at a single point in time. This is opposed to incidence studies, which measure the number or percentage of new cases that develop over the course of an admission. Many institutions report prevalence figures. In California, and among UC medical centers, there is variation in frequency of reporting, which can be monthly or quarterly. CALNOC provides for certain exclusion criteria. Patients who are dying, in hospice or palliative care, can be excluded, although not all UC medical centers exclude these patients from reporting. Medically unstable patients may be excluded, or patients who are moved out of a unit temporarily. The Centers for Medicare and Medicaid Services have other exclusion criteria.

UC Health's collaborative effort and communications about this issue had revealed that UC Irvine and UC San Diego were most similar to each other in their methods of assessment and reporting. Different types of nurses might assess pressure injuries at the various medical centers, and other factors, such as hospital lighting and how actively nurses check the skin under medical devices, would also account for differences in rates. For these reasons, the rates of pressure ulcers are not as unambiguous and obvious as readmission rates; there is some subjectivity in reporting them.

Prevention education and training were also not standardized throughout the UC system, but a standardized method could be developed for measuring, assessing, treating, and preventing pressure ulcers. UC medical centers use about 60 different wound care products for treating pressure ulcers. There are many treatment options available and a lack of consensus on these products. The medical centers were also experimenting with different types of technology. For example, UC Irvine and UC San Diego were examining a device that can measure the amount of time a patient spends in bed, and in what physical positions: standing, sitting, or walking. UC Irvine was also examining technology that carries out much more detailed pressure mapping of the body and provides feedback to nurses about when to move a patient. The type of beds used is also an important factor in reducing pressure ulcers; there are beds that use technology to help prevent ulcers. The average replacement time for hospital beds is about eight to ten years. UC Health would like to develop a bed replacement strategy.

The group most involved in this collaborative effort made a site visit to UC Davis a few months earlier to observe how prevalence and incidence of pressure ulcers are measured and assessed there. The differences among the medical centers were such that UC Health had decided to engage an external consultant to review UC practices and develop a best practice program. A UC Wound Care Workgroup had also been formed to examine bed replacement strategy, optimal products, and which new technologies can be used to reduce pressure ulcers.

President Napolitano asked when the external consultant's work to identify best practices for UC Health would be accomplished. Dr. Cherry responded that UC Health would like this to be accomplished as soon as possible and anticipated that this might occur in the next several months.

Regent Sherman asked why all UC medical centers were not already assessing and treating pressure ulcers in the same way. Dr. Cherry responded that there were still discussions about whether to exclude certain categories of patients from assessment. Regent Sherman asked if Dr. Cherry was confident that in fact all medical centers would adhere to the best practices identified by the external consultant. Dr. Cherry responded that the consultant's work was a tool. Once the consultant's report was available, the chief medical and nursing officers would discuss how UC Health should standardize its practices. His view was that there was no barrier to a consensus on best practices among the medical centers. Once consensus was obtained, it would be up to the clinical leaders to implement this change within their organizations. Regent Sherman asked if the dashboard reports would hold clinical leaders accountable once these changes were implemented. Dr. Cherry responded in the affirmative, noting that the dashboards were already holding UC Health accountable.

Chancellor Block noted that pressure ulcer rates were much lower at the Santa Monica hospital than at other sites. He asked if this was due to the patient mix at that location or other factors. Dr. Cherry responded that the Santa Monica hospital had a lower case mix index than other UC hospitals. With lower acuity of patient conditions, one might expect a lower incidence of pressure ulcers. However, many patients at the Santa Monica hospital are orthopedic patients who are not very mobile, and there is a large geriatric population. These populations are at a higher risk for pressure ulcers. There was no clear reason for the low incidence at the Santa Monica hospital.

8. **APPROVAL OF THE AMBULATORY CARE CENTER EXPANSION WITH EYE CENTER PROJECT, DAVIS CAMPUS**

The President of the University recommended that the Health Services Committee approve UC Davis Health's proposed presentation of the Ambulatory Care Center Expansion with Eye Center project and subsequent requests to the Finance and Capital Strategies Committee at its future meetings for (1) approval of preliminary plans funding and (2) approval of the budget and design pursuant to the California Environmental Quality Act .

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

UC Davis Human Health Sciences Vice Chancellor David Lubarsky briefly described the campus' plan to expand its Ambulatory Care Center (ACC), also known as the Ellison Building. The motivation for the project was fairly straightforward. UC Davis Health needed to initiate a sequence of relocating some of its clinics in order to mitigate known seismic risk and improve patient access and satisfaction. The proposed project would provide necessary clinical space, improved patient flow, a greater number of examination rooms, and efficiency for ophthalmology and other patients within the ACC. UC Davis Medical Center was currently the only UC medical center without a dedicated Eye Center, and it had $39 million in philanthropic support for the construction of the Eye Center portion of this project.

For the past three years, Vizient had ranked the UC Davis ambulatory outpatient group as number one in the nation for patient quality and efficiency, but number 37 in patient access, and number 43 in capacity, compared to 48 academic medical centers. UC Davis Health clearly needed to improve patient access and capacity, had outgrown the current ACC configuration, and was leasing space at an annual cost of more than $3 million in buildings adjacent to the Medical Center campus. The main campus had only 312 examination rooms. UC Davis could not rebuild this building, but planned additions and renovation in order to maintain its designation as a hospital-based facility. Once the planned expansion had been built, non-clinical offices would be removed, the number of examination rooms would be increased, and the layout of the building would be simplified. The ACC currently had 165 examination rooms. With this project that number would increase to 231, and in the longer-term future, UC Davis hoped to increase it to 400-435 rooms.

Dr. Lubarsky presented a floor plan of the ACC, which he described as an unintelligible rabbit warren where patients frequently get lost. Clinical and office spaces are combined in a way that made sense when the building was built, but that UC Davis has since outgrown. Under the proposed plan, this valuable space would be used more efficiently. He remarked that UC Davis' ambulatory patient volume had stagnated at one million visits for the last few years and attributed this to the lack of space to grow, and this project would provide more space.

Upon motion duly made and seconded, the Committee approved the President's recommendation.

9. **APPROVAL OF INCENTIVE COMPENSATION USING HEALTH SYSTEM OPERATING REVENUES FOR FISCAL YEAR 2017-18 FOR JOHN STOBO AS EXECUTIVE VICE PRESIDENT – UC HEALTH, OFFICE OF THE PRESIDENT AS DISCUSSED IN CLOSED SESSION**

Recommendation

The President of the University recommended that the Health Services Committee approve the Clinical Enterprise Management Recognition Plan 2017-18 Plan Year Short Term Incentive award of $140,700 for John Stobo as Executive Vice President – UC Health, Office of the President. The recommended incentive award represents 22.2 percent of his annual base salary as of June 1, 2018.

Recommended Compensation
Effective Date: Upon approval
Base Salary: $633,782 (2017-18 salary)
Recommended CEMRP STI Award: $140,700 (22.2 percent of base salary)
Target Cash Compensation:* $774,482, plus possible Long Term Incentive (LTI) awards starting after the end of the 2018-19 Plan Year
Funding Source: Non-State funded (100 percent from clinical enterprise revenues)

Prior Year Data (2016-17 plan year)
Base Salary: $633,782
CEMRP Award: $190,135 (30 percent of base salary)
Target Cash Compensation:* $823,917, plus possible Long Term Incentive (LTI) awards starting after the end of the 2018-19 Plan Year
Funding Source: Non-State funded (100 percent from clinical enterprise revenues)

* Target Cash Compensation consists of base salary and, if applicable, incentive and/or stipend.

The incentive compensation described above shall constitute the University's total commitment regarding incentive compensation until modified by the Regents or the President, as applicable under Regents policy, and shall supersede all previous oral and written commitments. Compensation recommendations and final actions will be released to the public as required in accordance with the standard procedures of the Board of Regents.

Background to Recommendation

The Clinical Enterprise Management Recognition Plan (CEMRP), previously approved by the Regents and fully funded from clinical revenues using no State funds, is a UC Health system clinical performance-based incentive plan that places a certain amount of pay at risk for each participant and pays out only if performance against pre-established objectives such as quality improvements, patient satisfaction, and other objectives such as financial performance are met or exceeded. Performance-based, at-risk incentives are a typical component of total cash compensation at other teaching hospitals. CEMRP drives alignment of the five UC medical centers by establishing and rewarding the achievement of systemwide objectives, organization-specific objectives, and individual participant objectives based on the CEMRP tier in which the eligible employee participates. As the Executive Vice President – UC Health, Dr. Stobo's achievement of CEMRP objectives is based on the approved systemwide objectives.

The Office of the President requested approval of a CEMRP Short Term Incentive (STI) award for Dr. Stobo as Executive Vice President – UC Health which is tied to the attainment of a specific level of performance of 2017-18 Clinical Enterprise (Systemwide) objectives (SW Obj). The results of the 2017-18 systemwide objectives are summarized below:

Base Salary as of 6/1/18: $633,782	Weight	Attainment Level	Award %	Award = (Base*Weight*Award %)
SW Obj #1a	12%	Target	20%	$15,211
SW Obj #1b	11%	Maximum	30%	$20,915
SW Obj #1c	11%	Maximum	30%	$20,915
SW Obj #2	33%	Maximum	30%	$62,744
SW Obj #3	33%	Threshold	10%	$20,915
Total 2017-18 Award				**$140,700**

As outlined in the CEMRP 2017-18 Plan Document, Dr. Stobo's award opportunity percentages are: Threshold – ten percent; Target – 20 percent; Maximum – 30 percent.

Based on the achievement of the objectives as summarized above, the amount of the award proposed for Dr. Stobo is $140,700, which is 22.2 percent of Dr. Stobo's base salary as of June 1, 2018.

Systemwide Objective #1 focused on improving the operating margin across the system through the efforts of the Leveraging Scale for Value (LSFV) initiative. LSFV creates a collaborative effort across the UC Health System to accelerate aligned operations and ultimately improve quality, create greater value, and enhance the consolidated operating margin across UC Health. This objective consisted of three areas of measurement:

a. Supply Chain and Procurement; result was an improvement of $146.4 million, which is between the Target ($125 million) and Maximum ($150 million) attainment levels;
b. Information Technology; result was $26 million, which was at the Maximum attainment level ($26 million);
c. Labor Management; result was $67.6 million, which was above the Maximum attainment level ($10 million).

Systemwide Objective #2 focused on clinical improvement by developing sustainable, systemwide initiatives that result in the delivery of efficient, high-value, consistent clinical care across the UC Health System. The quality measure for 2017-18 was a reduction in excess bed days. The result was five medical centers achieving a four percent reduction in excess bed days, which exceeded the Maximum attainment level of five medical centers achieving at least a four percent reduction in excess bed days.

Systemwide Objective #3 focused on improving the Population Health Infrastructure by finding ways to expand and diversify the delivery model and source of patients for the UC Health System. The result was at Threshold, which required consolidating the existing campus-based population health work groups into a single workgroup for a systemwide effort, as well as identifying the top five priorities to be addressed by the workgroup. Target and Maximum attainment would have involved full development of the systemwide

Population Health infrastructure and ultimately identifying a project that would result in expanding and diversifying services.

No State funds are used to fund CEMRP incentive awards as the funding is solely from UC Health system revenues.

Under Dr. Stobo's leadership and coordination, the best practices at each of the five UC medical centers and their affiliated clinics continue to be leveraged to benefit the system as a whole with a demonstrated increase in the benefit of this systemwide effort year-over-year.

Consistent with Regents policy, this award has been reviewed and approved by the CEMRP Administrative Oversight Committee, the members of which are prescribed in the CEMRP 2017-18 plan document.

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

Upon motion duly made and seconded, the Committee approved the President's recommendation.

10. **APPROVAL OF APPOINTMENT OF AND COMPENSATION FOR BRADLEY SIMMONS AS INTERIM CHIEF EXECUTIVE OFFICER, UC DAVIS MEDICAL CENTER, DAVIS CAMPUS, IN ADDITION TO HIS EXISTING APPOINTMENT AS CHIEF OPERATING OFFICER, UC DAVIS MEDICAL CENTER, DAVIS CAMPUS AS DISCUSSED IN CLOSED SESSION**

Recommendation

The President of the University recommended that the Health Services Committee approve the following items in connection with the appointment of and compensation for Bradley Simmons as Interim Chief Executive Officer, UC Davis Medical Center, Davis campus, in addition to his existing appointment as Chief Operating Officer, UC Davis Medical Center, Davis campus:

A. Per policy, appointment of Bradley Simmons as Interim Chief Executive Officer, UC Davis Medical Center, Davis campus effective October 1, 2018 through September 30, 2019 or until the appointment of a new Chief Executive Officer, UC Davis Medical Center, Davis campus, whichever occurs first.

B. Per policy, continued appointment of Bradley Simmons as Chief Operating Officer, UC Davis Medical Center, Davis campus.

C. Per policy, an annual base salary of $732,022 during the appointment as Interim Chief Executive Officer, UC Davis Medical Center, Davis campus. At the conclusion of the interim appointment, Mr. Simmons's annual base salary will revert to his base salary in effect as of September 30, 2018 ($592,250) plus any

adjustments made under the UC Davis salary program during the interim appointment.

D. Per policy, continued eligibility to participate in the Short Term Incentive (STI) component of the Clinical Enterprise Management Recognition Plan (CEMRP), at his current plan level with a target award of 15 percent of base salary ($109,803) and a maximum potential award of 25 percent of base salary ($183,006), subject to all applicable plan requirements and Administrative Oversight Committee approval. Mr. Simmons will not be eligible for participation in the Long Term Incentive (LTI) portion of the CEMRP plan. Actual award for the STI will be determined based on performance against pre-established objectives.

E. Per policy, continuation of standard pension and health and welfare benefits and standard senior management benefits (including senior management life insurance and executive salary continuation for disability after five consecutive years of Senior Management Group service).

F. Per policy, continued eligibility to participate in the UC Employee Housing Assistance Program, subject to all applicable program requirements.

G. Per policy, continuation of monthly contribution to the Senior Management Supplemental Benefit Program based on his continued appointment as Chief Operating Officer.

The compensation described above shall constitute the University's total commitment until modified by the Regents, the President, or the Chancellor, as applicable under Regents policy, and shall supersede all previous oral and written commitments. Compensation recommendations and final actions will be released to the public as required in accordance with the standard procedures of the Board of Regents.

Background to Recommendation

The President of the University recommended approval for the appointment of and compensation for Bradley Simmons as Interim Chief Executive Officer (CEO), UC Davis Medical Center, Davis campus, in addition to his existing appointment as Chief Operating Officer (COO), UC Davis Medical Center, Davis campus. The current incumbent, Ann Madden Rice, has accepted the position of President of Abbott Northwestern Hospital and Senior Vice President, Allina Health Operations and left UC Davis on September 30, 2018.

Mr. Simmons will be appointed with a proposed base salary of $732,022, effective for 12 months from October 1, 2018 through September 30, 2019 or until the appointment of a new CEO, whichever occurs first. At the conclusion of the interim appointment, Mr. Simmons will continue in his current position as Chief Operating Officer, UC Davis Medical Center, and his base salary will revert to his base salary in effect as of September 30, 2018 ($592,250) plus any adjustments made under the UC Davis salary program during his interim appointment.

This is a Level One Senior Management Group (SMG) position. The proposed base salary of $732,022 will compensate Mr. Simmons for his work as Interim CEO and as COO. It represents an increase of 23.6 percent over Mr. Simmons's current base salary ($592,250) and is 9.5 percent below the 25th percentile ($809,000) of the Market Reference Zone (MRZ) for the CEO position. Additionally, the salary is 19.1 percent below the current incumbent's base salary ($904,788). The proposed base salary and position in the MRZ are appropriate given Mr. Simmons' qualifications and experience. Mr. Simmons will maintain a 100 percent appointment.

The Davis campus does not propose any other changes to Mr. Simmons's compensation, and there are no proposed exceptions to policy.

Mr. Simmons will continue to participate in the Short Term Incentive (STI) component of the Clinical Enterprise Management Recognition Plan (CEMRP), at his current plan level with a target award of 15 percent of base salary ($109,803) and a maximum potential award of 25 percent of base salary ($183,006), subject to all applicable plan requirements and Administrative Oversight Committee approval. Mr. Simmons will not be eligible for participation in the Long Term Incentive (LTI) portion of the CEMRP plan. Actual award for the STI will be determined based on performance against pre-established objectives.

As Interim CEO, Mr. Simmons will report directly to the Vice Chancellor – Human Health Sciences and CEO for UC Davis Health, David Lubarsky. Mr. Simmons will also continue to serve as the Chief Operating Officer for the UC Davis Medical Center during this interim period, thus will hold a dual role as CEO and COO.

Mr. Simmons will oversee more than 6,500 employees who support the operations of an acute care teaching hospital licensed at over 600 beds. The Medical Center, which includes primary and specialty clinics in ten communities, has an annual operating budget of more than $1 billion and serves a region of six million residents in 33 counties in Northern and Central California, recording nearly one million patient visits annually. It is the sole provider of a number of services for inland Northern California, including a Level 1 trauma center, a full-service children's hospital and pediatric emergency department, and a National Cancer Institute-designated Cancer Center.

Mr. Simmons is recognized as a seasoned leader in academic medicine and joined UC Davis Health as the Chief Operating Officer, UC Davis Medical Center in June 2016. In his current role as COO, Mr. Simmons reports to the CEO of the Medical Center and has delegated operational responsibility and accountability for inpatient and outpatient operations for the medical center. He oversees most hospital administrative functions, co-leads ambulatory services and represents the medical center externally in a variety of settings. Due to his direct experience managing the Medical Center, campus leadership has concluded that it is best to have Mr. Simmons serve in this interim role while a competitive recruitment to fill the career position occurs.

Prior to joining UC Davis Medical Center, Mr. Simmons served as Chief Operating Officer at St. Luke's Hospital in Kansas City. He served as the leader of day-to-day operations for

a 622-bed, nationally recognized tertiary care teaching and research hospital. Prior to joining St. Luke's in 2012, Mr. Simmons served as a senior vice president with Parkland Health and Hospital System, where he significantly improved emergency department throughput and was a key contributor to the development of a $2.5 billion replacement hospital.

Mr. Simmons received his Master of Health Administration from Washington University, St. Louis, Missouri and his Bachelor of Business Administration, Human Resources Management, Insurance and Risk Management, from Baylor University, Waco, Texas.

Funding for this position will come entirely from non-State funds, specifically from UC Davis Medical Center revenue.

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

Upon motion duly made and seconded, the Committee approved the President's recommendation.

11. **DATA-DRIVEN INSIGHTS TO IMPROVE PATIENT CARE**

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

Executive Vice President Stobo recalled that two years prior, UC Health had embarked on an effort to take advantage of patient data collected throughout UC Health for research and for improving patient care. UCSF Professor Atul Butte was leading this effort as Chief Data Scientist.

Dr. Butte explained that these UC Health data are in the form of electronic medical records. The University has been among the first institutions in the U.S. to deploy electronic medical records. UC and many institutions use the Epic system. Although hundreds of billions of dollars have been spent deploying these systems, almost nothing has been spent to analyze the data in these systems, and Dr. Butte emphasized that it would be a tragedy if one failed to make use of these data. Increasingly, UC Health would be focusing on population health and studying its patient care systemwide, and this would necessitate a single data warehouse. UC Health's central database would be built using the Observational Medical Outcomes Partnership (OMOP) Common Data Model, rather than Epic. OMOP is a national academic medical center standard built on open standards, open data, and open source tools. UC Health has records for 15 million patients seen in the last ten to 15 years, a number equal to about five percent of the U.S. population. For these patients, data include medical record number, date of birth, name, and diagnosis codes and procedures. Since 2012, five million patients have been treated by UC Health, and all modern data elements have been captured for these patients. This amounted to approximately 100 million patient visits, 500 million laboratory tests, 500 million diagnosis codes, and 250 million medication orders for patients. These numbers change

monthly, and would soon be changing weekly. These data were from patients seen at UC medical centers, not from patients seen by UC Health affiliates.

UC Health uses these data to analyze quality measures that must be reported to the State, to identify unnecessary pharmacy spending, especially for UC's own self-funded plans, and to optimize procurement. Data are shared with UC clinical researchers. UC Health has data on 141,000 cancer patients seen at UC; this is comparable in scope to MD Anderson.

Dr. Butte presented an example of a data dashboard showing the achievement of Public Hospital Redesign and Incentives in Medi-Cal (PRIME) quality measures by the UC Irvine Medical Center. This dashboard indicated, by percentages, the degree of achievement and the PRIME financial incentives at stake. The same dashboard allowed examination in greater detail, including an overview of specific patient visits and treatments. This dashboard had been piloted at UC Irvine, adopted at UC Davis, and demonstrated the value of having a standard data model at the campuses and in the central data repository. In July, the State had implemented a new pay-for-performance program, the Quality Incentive Program, with 26 measures on which UC Health would have to report by December. Each campus was able to report on five or six of these measures, and all reporting was implemented in three weeks.

Another example of the use of patient data was shown in diagrams of medication strategies in the treatment of Type 2 diabetes at UCSF. The diagrams displayed the drugs or drug combinations used, as well as changes in medication over time, and indicated that there were 1,640 unique medication trajectories for treating Type 2 diabetes at UCSF. A diagram for all UC medical centers combined included data for 71,702 patients and indicated 6,543 unique medication trajectories. It would now be possible to compare all these trajectories for effectiveness. Few other health systems were as large as UC Health and could carry out this type of research. The data on the various treatment pathways for Type 2 diabetes would allow UC Health to predict whether a drug such as Metformin would be effective for a patient, through the use of "decision trees" based on patient characteristics. This approach was still being studied and developed, but Dr. Butte anticipated that at some point in the future, UC physicians would these data to decide which treatments would be effective for different patients.

Dr. Butte presented an example of work recently published by UC faculty and Google on the use of artificial intelligence to predict patient outcomes, such as mortality and readmissions. This joint research with Google was a pilot project using UCSF data only. Patient data were de-identified, so that neither UC nor Google knew the patients' identities. Google had signed a contract according to which Google may not re-identify these patients, nor may it combine these data with any other data. The use of data was compliant with federal standards and the Health Insurance Portability and Accountability Act. A top artificial intelligence team at Google was working on this pilot project, which was part of a two-year agreement. UC Health would decide whether to pursue further projects like this one. Dr. Butte noted that there is significant artificial intelligence expertise within the University. A UC-wide symposium on artificial intelligence in medicine was being planned for spring 2019.

Dr. Butte anticipated that there would be improvements in these methods of predicting patient outcomes. The University had a treasure trove of data that should be used carefully and respectfully. He presented a chart or "map" of how various conditions or diseases might progress in a patient, along different paths. Another animated map showed the course of disease histories for thousands of patients, and the overall pattern of these developments. In the future, UC Health would be studying these maps and identifying the positions of UC patients on these maps in order to help determine treatments for these patients, and accountable care organizations would be using this approach.

Committee Chair Lansing observed that UC Health's extensive patient base provided extraordinary opportunities. This patient base would continue to grow. She expressed hope that UC Health would be able to bring more patients into clinical trials. She suggested that UC Health might consider forming a diabetes consortium, and that a discussion at a future meeting would focus on specialization, and what kinds of specialization might be desirable at various UC medical centers. Referring to the project with Google, she asked who had control of the data. Dr. Butte responded first to the comment on clinical trials, and anticipated that more UC patients would be involved in clinical trials in the future. Genomics would play a greater role in cancer treatment. Currently, much genomics work was outsourced to outside companies, but UC Health might seek to retain genomics work within the University. With regard to the Google project, he explained that this was a short-term research collaboration. Google did not own or have the right to use any of the data, and at the end of the project, Google would delete these data.

Regent Graves asked whether the artificial intelligence technology in this project was housed at Google or at the University. Dr. Butte responded that many artificial intelligence projects were under way, most of them internal to the University, and only a very few with an external entity. The example presented was built with UC and University of Chicago data. He described this as the beginning of modeling, and Google would not pursue further modeling unless the University agreed to this.

Regent Graves asked if the University had the capacity on its own to run artificial intelligence projects like this one. Dr. Butte responded that Google and other companies were recruiting UC faculty. Working with Google on a project like this would allow the University to use this technology and not lose faculty. There is a great deal of artificial intelligence expertise within the UC system, including faculty on campuses without medical centers, and he anticipated that UC Health would soon benefit from this expertise.

Regent Graves described artificial intelligence as the wave of the future and stated that he was glad to see UC Health using this technology. All aspects of the University should use this technology, which would change the higher education environment.

Regent Sherman stated that this was a fascinating topic and that UC Health was on the road to predictive medicine. He asked if the patient data in these studies included patient DNA, and if not, if it was possible to include patient DNA. Dr. Butte responded that there were many DNA efforts under way in the U.S., and other universities were ahead of UC in this regard. Within UC, UCLA had taken the lead, making an effort to recruit patients for DNA

samples. UC cancer studies included some genomic data. He noted that outside companies such as 23andMe do not want to share client data with UC; this is a privacy issue.

Regent Sherman suggested that UC patients who have had their genomic data analyzed by an outside company could, on a patient form, opt to have those data transferred to UC. He asked if UC had considered commercialization or monetization of its data, obviously in a protected way. Dr. Butte responded that all UC medical centers had been running clinical trials for a long time. This was a new realm of data licensing. UC Health systemwide and campus task forces were studying the question of appropriate boundaries. The study of these kinds of data was still in an early stage of development. UC Health would conduct careful pilot studies in this area. Chief Strategy Officer Elizabeth Engel stated that she could provide more information on UC Health data governance. Citing time constraints, Committee Chair Lansing asked that this discussion be deferred to a future meeting. Dr. Stobo stated that this is a critically important topic and that sufficient time for an in-depth discussion was needed. Committee Chair Lansing stated that this topic would be discussed in detail at a future meeting.

Regent Park noted that Dr. Butte and UCLA School of Medicine Dean Kelsey Martin were co-chairs of the Governor's Precision Medicine Advisory Committee, which was examining the use of data to produce better health outcomes. This was an important part of the effort to reduce the State's spending on health care, thereby reducing the impact on the State General Fund and freeing up resources to invest in higher education. This is significant work and the University should embrace it.

Dr. Martin referred to Regent Graves' question about UC expertise in artificial intelligence. She stated that there was significant expertise within the University. UCLA Health was forming a department of computational medicine, together with the School of Engineering, to leverage this expertise. There were tremendous opportunities for this area of scholarship.

Chair Kieffer asked how the State sets goals for UC Health. Dr. Butte responded that the State's goals for Medi-Cal are determined by the Department of Public Health. Some goals are repeated from year to year, within the context of multi-year quality efforts, but criteria and goals change over time. Reporting on opioid addiction and treatment had not been important ten years earlier, but had become common now. Goals might pertain to a straightforward procedure such as colorectal cancer screening or a complex set of procedures that need to occur for particular patients.

The meeting adjourned at 3:10 p.m.

Attest:

Secretary and Chief of Staff