Academic health centers (AHCs) are engines of innovation in medical research and care delivery. The University of California Health’s six AHCs — UC Davis Health, UC Irvine Health, UC Riverside Health, UC San Diego Health, UCLA Health and UCSF Health — are safety net organizations with doors open to all. UCH’s AMCs often receive patient transfers from other hospitals because the patient’s condition could not be safely treated at the original facility or the insurance coverage was inadequate.

How ill are patients at AHCs? Case mix index (CMI) is an accepted metric that measures the health needs of hospitalized patients.

CMI groups people together by primary and secondary diagnoses, and then factors in the number of procedures needed, patient ages and coexisting conditions to produce a metric of patients' medical acuity.

The higher the CMI, the sicker the patient. Numbers above 1.0 indicate increasingly poor health. The CMI at University of California Health hospitals ranges from 1.83–2.00, compared to 1.1–1.5 in most California acute care hospitals.

The average length of stay at UCH’s hospitals is 6.1 days, compared to a California average at acute care hospitals of 5.1 days.
Medicaid and Medicare populations are significantly greater at AHCs

Over time, patients with significant health conditions or injuries may have difficulty retaining employer-sponsored coverage or self-funded insurance. Because AHCs treat a high volume of seriously ill patients, the percentage of patients on Medicaid is higher than at other hospitals.

Seniors, who often have more complex health needs, also represent a significant percentage of inpatient admissions.

The high CMI of University of California Health's patients, longer stays and low reimbursements from Medicaid and Medicare create a challenging financial environment. Medicaid reimbursement covers approximately 50 percent of the cost of care per patient and Medicare about 90 percent. Hospitals absorb the unfunded balance.

That is why even small reductions in Medicaid funding and reimbursements, multiplied over many patients, have a significant impact on an AHC’s financial stability.

In fiscal year 2018-19, UCH’s six academic health centers and school of medicine provided 1,092,522 inpatient days and 7.6 million outpatient visits.¹

¹ Source: University of California Regents Budget Operating Report, 2020-2021
University of California Health is among the nation’s most active clinical research centers, with core competencies in basic science, translational research and precision medicine. Each competes for funding from the National Institutes of Health, other federal and state agencies and private foundations to work on the most challenging medical conditions.

Prostate cancer
Prostate cancer is the second leading cause of cancer death among American men. Most treatments involve surgery, radiation or hormonal therapy, which can trigger a more aggressive form of the disease. UCSF researchers discovered that an experimental drug, ISRIB, can prevent very aggressive cancer cells from regulating consumption of a protein synthesis they need, causing them to self-destruct. Although still in the early stages of research, molecular-level approaches like this hold enormous potential.

Stroke rehabilitation
Stroke is one of the leading causes of disability. Physical and occupational therapy can improve limb mobility and independence, but regular medical appointments can be difficult for seniors and those in rural markets with few providers. Researchers at UC Irvine Health found that tele-rehabilitation — rehab services using telecommunications technology — is as effective as therapy provided in-clinic for improving arm motor status after a stroke and can be provided with minimal technical skills needed by the patient.

Chronic pain
Relief for chronic pain often relies on pharmaceuticals, but UCLA Health bioengineers have demonstrated that controlled magnetic forces, applied at a cellular level, may be a new avenue of drug-free pain treatment. Researchers have demonstrated that small magnetic particles suspended inside a polymer gel and subjected to magnetic fields can influence certain cell proteins and the flow of ions that play a role in the sensation of pain.

Cervical cancer
Pap smears have been the “gold standard” for detecting pre-cancerous cells that lead to cervical cancer. UC Davis Health researchers, in collaboration with other organizations, found that testing for the viruses that cause cancer, such as high-risk HPV, is an excellent alternative screening tool for patients without obvious signs or symptoms. These evidence-based recommendations helped inform the U.S. Preventive Services Task Force, which updated its recommendations for cervical cancer screening accordingly.

Spinal cord injuries
Patients with severe spinal cord injuries have had few options for treatment. Researchers at UC San Diego Health recently conducted a small Phase 1 first-in-human clinical trial in which small amounts of neural stem cells were transplanted into people with spinal cord injuries. Participants experienced minor improvements in motor and sensory scores and reported no adverse side effects, clearing the way for subsequent clinical trials with more participants and higher doses to evaluate effectiveness.

Medicaid and Medicare support the care of very ill patients, while investments in clinical research nurture tomorrow’s breakthrough treatments.
Demographic trends² point to a significantly increased need for the complex care and research capabilities of AHCs such as University of California Health. If current projections continue, by 2035 there will be more seniors in the U.S. than children³ and the median age will continue to rise from 38 today to 43 in 2060.

To meet projected patient demand, reimbursement rates from governmental payers like Medicaid and Medicare need to be predictable and sufficient to cover costs. And, funding for basic science, translational research and precision medicine — key AHC strengths — should be increased to prepare for a rapidly aging population.

About the University of California Health (UCH)

University of California Health is one of the nation’s largest academic health systems. It is comprised of six academic health centers, six medical schools, and 13 health professional schools. Each year, it provides care to more than 375,000 people through its emergency departments, admits more than 172,000 people for inpatient care and provides more than 7.6 million outpatient visits.

To learn more, contact UC’s Office of Federal Governmental Relations at (202) 974-6300.

³ U.S. Census Bureau’s 2017 National Population Projections