When David Entwistle was young he dreamed of becoming a famous lawyer. “I took three years of high-school Latin preparing to be an attorney,” he recalls, and registered for pre-law courses at Brigham Young University. However, several healthcare executives he met during a two-year mission inspired him to change course. It worked out. Today David Entwistle is president and CEO of Stanford Health Care, anchored by a new state-of-the-art 368-bed hospital that is the only Level-1 trauma center between San Francisco and San Jose, 12,000 employees, more than 2,500 medical staff, 3,000 nurses and about 1,200 residents. Before joining Stanford Health Care, he served for nine years as CEO of the University of Utah Hospital & Clinics. He previously served as senior VP and COO at the University of Wisconsin Hospital and Clinics and VP of professional services and joint venture operations at the City of Hope National Medical Center in Duarte, Calif. Entwistle is an avid cyclist who enjoys both road and mountain biking, often accompanied by his teenage son. His LinkedIn essay, “What I Learned about Hospitals as a Trauma Patient,” which recounts a crash he suffered during a triathlon, offers a timely perspective about technology’s role in medicine.

Stanford Health Care recently opened the new Stanford Hospital, an 824,000-square-foot, seven-story architectural gem a decade in planning. A Level-1 trauma center, it has 368 patient rooms and an emergency department double the existing ED. Why more bricks and mortar in the digital health era?

We have a huge network of clinics that conduct roughly two million outpatient visits a year, but there’s still a need for quaternary and tertiary centers for patients over 3.0 CMI [chronic multisymptomatic illness]. It’s not just our area, all the academic medical centers across the country are full. We also needed to upgrade our hospital’s seismic standards per California requirements. The need for a new hospital gave us an opportunity to build an infrastructure for digital health that’s flexible enough to accommodate changes in digital technology we’re not even aware of yet. Building a
100-year hospital was very important to us. The new hospital combines high-tech with healing, offering private rooms and spaces like outdoor gardens.

Located in Silicon Valley just south of San Francisco, Stanford University is both a driver and a beneficiary of the digital information revolution. What has been the impact of Silicon Valley on Stanford Health Care?

It’s one of the reasons I chose to come here. The consumer experience drives this community. Working with the IT, business and engineering schools and partnering with Silicon Valley is like having a thousand flowers blooming all at the same time. This collaboration, and the innovation it spurs, has enabled us to really push the patient experience.

For example, we have been able to enhance our Epic EHR platform with virtual second consults, automatic waitlisting and AI apps. A wayfaring app enables us to communicate with patients as they arrive, saying, “We see you’re approaching the building,” and it populates a Google Map that guides them step-by-step to their destination.

The wait-list tool automatically moves a person up to the earliest possible appointment when someone cancels. That’s a big advantage when the earliest appointment in rheumatology might be six months away. More than ten thousand of our patients have used the app since we launched.

We are also using AI to help tailor treatments to our patients. For example, our clinical informatics consult—we call it the Green Button—uses a unique search engine that scans our data warehouse on the outcomes of millions of patients to help doctors care for the person in front of them. It has enabled us to take an individual patient, with a particular disease, and calculate how effective certain treatments will be for them—based on the outcomes of similar patients. That’s a very real use of data to apply the right treatment to the right patient at the right time.

For example, a Stanford physician treating a patient with a particular condition can submit a request to the Green Button to analyze comprehensive data on up to 140 million patients, looking at disease, demographics, medications, treatments and lab results. Green Button can get an answer back by the end of the day. If this idea of learning from similar patients goes national, we’ll revolutionize the way medical evidence is produced and consumed.

Of course, another well-known partnership for innovation is the Apple Heart Study, where we teamed with Apple to determine whether Apple Watch could detect irregular heart rhythms, including those from potentially serious heart conditions like atrial fibrillation, a leading cause of stroke.

That’s a good segue. Digital health and consumerism are often interlinked. Are they the same thing? How do you distinguish them? Consumerism is all about how well we anticipate the needs of patients and consumers who are accustomed to using iPhones and Android phones to check on flights, find local information, set up appointments, or order from grocery stores. That’s why we offer the MyHealth mobile app, which offers an online patient portal to create a user-friendly interface for consumer health. MyHealth enables patients to manage prescriptions, schedule appointments, review test results and conduct virtual follow-up visits with their doctors from home or anywhere else.
Patients come to us with vastly different expectations, and if we don’t meet those they’ll go somewhere else. We’re already seeing a number of firms here in the San Francisco Bay Area that have developed competing clinics. A key element in being consumer-facing is to be transparent with data and information.

As an academic medical center, how does quality of care drive your organization and how do you maintain the level of quality as more and more care moves to value-based reimbursement?

Stanford Health Care joined the Stanford School of Medicine and Lucile Packard Children’s Hospital in a strategic plan that defined value as a combination of quality, service, cost and engagement. We evaluate our performance in these domains in partnership with Vizient, a healthcare performance-improvement firm that uses integrated cost, quality and market-performance data based on foundational elements developed by the Institute of Medicine. As consumers we inherently expect quality from healthcare providers and as a healthcare executive I expect better quality will result in lower cost.

Innovation and partnerships are two buzzwords that have defined much of our discussion concerning health-system strategy. How do they interact?

We go by the adage that we will produce far more together than we would individually. We don’t want to duplicate services already offered in our geographic market. So we said, “Why not partner with local community hospitals?” It’s a win-win situation for an academic medical system to have many partnerships with local hospitals.

With John Muir Health, CommonSpirit, Sutter and UCSF we’re over-bedded in the San Francisco Bay Area in pre-COVID times. So, the question, then, is how do we leverage our collective capacity and expertise to deliver the best possible care to patients? One answer can be found in our partnership with Sutter, where we are building a new oncology center in the East Bay to enhance cancer care and access to clinical trials for the community.

In some markets scale is king. We’re just not in that kind of market. Forming partnerships and marketing are key elements of our strategy.

Stanford Health Care is in a geographic marketplace that includes Kaiser Permanente, CommonSpirit Health and Sutter Health, not to mention smaller but highly regarded John Muir Health. How do you compete in this highly competitive marketplace? Can you expand on possible partnerships?

Allying with Sutter to build a cancer center is a great example of a strategic partnership. We already have the Stanford Cancer Center South Bay in San Jose. Sutter came to us and suggested partnering with us on cancer care in the East Bay. Our discussions led to developing an integrated, multidisciplinary cancer center in the East Bay modeled on the highly successful Stanford Cancer Center South Bay concept. This outpatient cancer center will serve as a local hub for cancer care and offer East Bay patients and their families access to the most advanced, complete and coordinated care from screening through survivorship.

We want the ability to expand. While we compete head-to-head on many things, it’s also possible to create great value through partnerships.
For example, the combination of John Muir’s NICU in Walnut Creek and Stanford’s pediatrics services creates a powerful synergy across the Bay Area. Kaiser has a 40 percent market share and we do a lot of work for Kaiser, which has outsourced its heart, lung, kidney and liver service lines to other organizations.

The social determinants of health (SDoH)—environment, housing, food insecurity, access to care, transportation and other social and economic factors—impact 80 percent of a person’s health and well-being; clinical care accounts for only 20 percent. How does an academic medical center like Stanford Health Care address the SDOH?

Stanford has done a lot of research in this area. Our vision is to predict, prevent and cure patients—critically, in that order. When your zip code is a better indicator of health than your genetic profile, addressing the social determinants of health is imperative to achieving that vision. One way that we are doing that is through our Stanford Precision Health for Ethnic and Racial Equity Center or SPHERE. The SPHERE Center is one of five national centers funded by the National Institute of Minority Health and Health Disparities (NIMHD) at the National Institutes of Health to focus on using precision-health tools to improve the health of underserved ethnic and racial groups. SPHERE is involved in a number of studies that seek to proactively apply precision techniques to personalized prevention and treatment, taking into account people’s individual differences in genes, environment and lifestyle.

Another roadblock is access to care. That’s why, even before COVID, we were using telemedicine for patients in the Bay Area, where traffic can be an insurmountable barrier. For example, I just talked with our chair of medicine who met with a patient who had to drive three hours from Fresno. He told her, “Next time let’s meet online.” Virtual care resonates with our faculty, reflected by the tremendous growth we have seen in telehealth visits and the use of our online second opinions platform.

The current transformation of healthcare seems to belie any in the past, even before the COVID-19 crisis. What do you think the healthcare landscape will look like in 2030?

I’d start with maybe a hope: Unless you have to be physically present you should be able to do all your healthcare remotely. My hope is we use technology to continuously engage people in their health, not just when they have to come into the hospital or physician’s office. Let’s use data in real-time ways to forecast a patient’s long-term health and, if necessary, intervene early before disease has a chance to take hold. Here at Stanford we’re working with tech companies to design and implement the tools and technologies for that future.

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