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*by Allison Suttle*

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Providing health care in rural regions presents unique challenges. For some patients, the closest doctor may be a three-hour drive. Clinicians seeking an expert consult may find there's no appropriate specialist within 100 miles. And vast distance can hinder the dissemination of best practices and coordination of care. At Sanford Health, one of the largest rural health-care-delivery systems, we've tackled this challenge by leveraging an array of technologies to provide high-value care to a population of around 2 million, dispersed across 300,000 square miles in the Dakotas. We've adopted a single electronic medical record (EMR) platform, embraced telehealth technologies, developed enterprise-wide departments, and committed to data transparency.

**EMR platform.** So far, we have rolled out our integrated EMR platform to 45 hospitals and more than 300 clinics. Key to its success in rural care delivery is that we can rapidly disseminate common decision-support tools across the entire network. For example, in order to improve hypertension control across our population, we built in decision support for our rooming nurses. Anywhere in our system, whether a patient is at the orthopedist or the allergist, if the blood pressure of a patient receiving medication for hypertension is found to be elevated, the software prompts the nurses to make sure the patient follows up with their primary care provider. By catching patients with high blood pressure wherever they might be in the system, hypertension control rates for our patients remain over 90%.

In addition, we've programmed our EMR to integrate uniform, evidenced-based treatment guidelines into every provider's workflow, decreasing unnecessary variation and allowing nurses to work at the top of their licenses. Our standard treatment regimen for hypertension, based on JNC8 guidelines, is pushed to all providers, standardizing which medications to use, educational materials to provide, and when to follow up. As a result, our time to optimal control of hypertension fell from 110 days to 40. Hard copies of guidelines that once gathered dust on a shelf have been made into consistent action items, delivered through the EMR at the point of care for every appropriate patient, every time, anywhere in our system.

**Enterprise departments.** To further assure that our far-flung patients get the best and most consistent care, we created multidisciplinary teams gathered around one specialty (such as pediatrics) or one disease (such as breast cancer) to determine standards of care. For example, we assembled the best of our physicians who treat breast cancer patients — specialists in oncology, radiology, reconstructive surgery, and other areas — to create standards for screening, treatment, quality, patient safety, and patient experience. This team determined that 3D mammography should be the standard of care, and we have prioritized making that available to all Sanford patients. With the implementation of 3D mammography, patient recall rates have fallen, while cancer detection has increased.

**Telemedicine.** Connecting specialists with distant patients is one of the biggest challenges in rural care. Sanford has hundreds of physicians who have racked up many hours of "windshield time" doing outreach to our more remote communities. To improve access, we now have specialists do telemedicine consults with critical-access hospitals so that patients can receive care close to home while their doctors can still get, for example, an infectious-disease consult.

We also use telehealth to improve urgent care. With our telestroke program, when a rurally based physician suspects that a patient is having a stroke, they can immediately videoconference with a Sanford neurologist for a consult. Getting clot-busting medication to a stroke patient before transport to a hospital is time-sensitive and can prevent long-term sequela. For some patients, we believe our telestroke program was the difference between disability and a full recovery.

In designing these programs, we thought first about how best to improve care, and only then how to get reimbursed. Payment models haven't yet caught up with telemedicine, but we believe that patients will be willing to pay something for these services, helping to offset our costs. Many of our patients who live remotely must take significant time off work to come to our clinic locations. We think many patients would rather pay $49 for a video visit for, say, a diabetes follow-up than be away from work or home for several hours to make the visit in person. We are now working to make it possible for all of our primary care providers to offer scheduled video visits for any patient appointment.

**Data transparency.** Finally, we have made our quality data transparent, which helps best practices flow through our system and ensures that our patients receive the same quality care whether they are in Sioux Falls, South Dakota (population 175,000), or Canby, Minnesota (population 1,700). To this end, our primary care physicians use tested metrics available through Minnesota Community Measurement for measuring and reporting on quality in the ambulatory-care setting, and any provider can see any other provider's data. The resulting peer pressure inspires everyone to do their best work.

As important, if the data shows one region has developed a best practice that's having a major impact on quality, it's readily apparent and efforts to share the approach can immediately begin. For example, we had a high-performing clinic that reached the National Colorectal Cancer Roundtable's "80% by 2018" patient screening goal. We identified its best practices — such as improved workflows, outreach through our "My Chart" patient portal, and celebrating top performers — and are now applying them in all clinics. We now have 10 clinics that are above the 80% goal and have improved our enterprise performance overall by screening an additional 14,200 patients in the last two years.

These initiatives and others have helped Sanford Health improve and become a model system for rural health. But my take is that these same tactics just might be of value to providers and patients in other settings, including the most urban delivery systems in the country.

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