This is our annual CEO Outlook issue in which we ask top executives of health systems what their major IT-enabled strategies are for the coming year. It’s a snapshot of healthcare IT from leaders across the country and one that shows progress from last year and clear next steps for the years ahead. Healthcare executives lose increasingly less sleep over IT. Instead they’re more focused on a logical process of building, reaping the benefits of the last several years of infrastructure, network and clinical-applications development. Healthcare IT is no longer a roll of the dice but a disciplined process of strategic investment and management.

This year we highlight a cross section of big and small organizations in diverse markets responding to the need to automate care. We interviewed executives from Intermountain Healthcare in Utah, Texas Health Resources, Summa Health System in Ohio, St. Mary’s Hospital in Wisconsin (a member of SSM Health Care), Munson Healthcare in Michigan and Scottsdale Healthcare in Arizona.

There’s a remarkably consistent IT agenda among these executives in the form of EHR, ambulatory IT and consumer-portal initiatives, just to name a few. But there’s also a chance to see how healthcare delivery organizations, regardless of size or geographic market, are continuing to be innovative and bold. Each has its own compelling story to tell because, at least so far, healthcare continues to be local.

**Intermountain Healthcare**

Always a leader in IT, Salt Lake City-based Intermountain Healthcare plans to continue breaking new ground in IT-enabled strategies in 2007. Topping the list for the 22-hospital, 26,000-employee integrated delivery system, which serves all of Utah and southeast Idaho, is a major initiative with GE Healthcare to roll out a next-generation clinical information system. Launched a year ago, the initiative will continue enterprise-wide at least until 2010.

“It’s the whole gamut of the EHR,” says Bill Nelson, Intermountain’s president and CEO. “A critical part of this is our current effort to build prompts and...
real-time capability. It’s not just to use clinical information as a scorekeeper, but to enable best practices with caregivers,” he says.

For example, Intermountain aims to not only make sure patient data is available in the ED, but also gets transmitted back to physician offices. The goal is completely integrated in-patient and outpatient clinical information throughout the entire Intermountain system bolstered with decision support for clinicians. “As care decisions are made, best practice guidelines and clinical protocols are made available. It’s huge,” says Nelson.

Intermountain is expanding and building the completely new system on the experience its clinicians gained with the third-generation HELP system, its famous home-grown HIS. But Nelson says this one’s exponentially more powerful. “This is taking the prompts, artificial intelligence and data warehouse to the next level.”

Intermountain has earned the title integrated delivery system. Besides its nearly two-dozen hospitals, the organization operates a 500,000-member health plan and employs 600 physicians. All of that makes IT integration a mandatory objective. “When a diabetic patient shows up to see a primary care doctor in one of our medical clinics, the system can pick out of the clinical data warehouse that patient’s hemoglobin and retinopathy and display it on a separate sheet. There’s that interconnectivity,” says Nelson.

Ultimately the biggest IT issue for Intermountain Healthcare in 2007, he says, is the complexity and challenges of bringing more medical information from disparate sources like robotics, pharmacy and CPOE into a single system. “When we talk to GE, they say this is a ‘Moon Shot,’” he says.

Summa Health System

It might be difficult to imagine a four-hospital system based in Akron, Ohio, as a national provider of third-party administration (TPA) services to self-funded health plans, but that’s the case with Summa Health System. The health system, founded in 1989 and serving northeast Ohio, also has a health plan that provides it with a key strategic advantage, according to Tom Strauss, president and CEO.

Indeed, Summa’s health plan, SummaCare, has been ranked by US News and World Report eighth for Medicare and 48th...
for commercial in its annual rating of America’s Best Health Plans, based on criteria like access to care, overall member satisfaction, prevention and treatment. But it’s the TPA services that really set Summa apart from other delivery systems, even those with health plans. Summa has gone national by providing other not-for-profit, self-funded health plans with back-office management including licensing of an IT product. “We have an aggressive management team” supporting the TPA venture, says Strauss.

But Summa has to be aggressive at home as well. Its major market—largely urban and radiating out for 40 miles from Akron—encompasses five northeast Ohio counties including 700,000-population Summit County. But it is ever mindful of the 800-lb. gorillas in nearby Cleveland: The Cleveland Clinic and University Hospitals. Their looming presence poses both a threat and an opportunity. Summa has enjoyed a long-standing relationship with The Cleveland Clinic and is in discussions with that organization to explore additional synergies. “We’re trying to become the third major provider organization in the area, to develop a regional health system,” says Strauss.

So, it’s not surprising that a major strategy for 2007 is regional development. “We’re looking at how we can connect with other independent hospitals, to bring our model to them,” says Strauss, noting that the first such institution it has established an affiliation with under this strategy is Robinson Memorial Hospital in Ravenna.

Another strategy is to develop greater integration with medical staff, working with an EMR grant program from Anthem through its PHO, Summa Health Network, to provide IT support to independent community physicians. The grants go as high as $7,500 per doctor and up to $75,000 per physician group. Physicians receive half the amount when they sign up, 25% when they go live and the final 25% when they transmit the first data to Summa.

The goal is to involve as many as 300 physicians in the program by the end of 2007. “Then you can really do clinical integration. It allows you to negotiate better with health plans and tell them we have a group of fully integrated docs,” says Strauss. Summa’s provider network PHO was awarded a performance bonus last year that has allowed it to invest $2 million in physician integration. “We had a whole team of doctors agree to a single vendor—eClinicalWorks in Westborough, Mass.—and were able to negotiate a great deal,” says Strauss. “I am thrilled. I never thought we’d get docs to agree on one system.”

Summa is fully live with CPOE at its flagship Akron City Hospital and is rolling it out system-wide in a seven-year, $24-million initiative called PLATO, for Physician Leadership for Accurate and Timely Orders. “We’ve had amazingly good reception. We’re one of Eclipsys’ national models for success,” he says. This month PLATO goes live at

Upcoming Events continued

February 28
UnitedHealthcare on Personal Health Records
• Archelle Georgiou, MD, UnitedHealthcare, Minneapolis

March 7
Nursing Admissions Process Redesigned to Leverage EHR at Christiana Care
• Jennifer Guite, RN, MS, project manager and clinical analyst, Christiana Care Health System, Wilmington, Del.
• Mary Lang, RN, MS, director, Nursing Informatics, Christiana Care Health System, Wilmington, Del.
• Patrick McCartan, RN, MSN, BC, Nursing Informatics Team, Christiana Care Health System, Wilmington, Del.

March 8
The MidSouth e-Health Alliance: Overcoming Policy, Privacy and Security Barriers
• Vicki Estrin, program manager, Regional Informatics, Vanderbilt Center for Better Health, Nashville, Tenn.

March 15
The Coyote Crisis Campaign: Scottsdale Healthcare Project Wins Both Healthcare Informatics and CHIME Innovator Awards
• James Cramer, CIO, Scottsdale Healthcare, Ariz.

March 20
KLAS on CPOE: An Industry Update
• Adam Gale, KLAS, Orem, Utah

For information on any of these teleconferences, please register on our Website scottsdaleinstitute.org
St. Thomas Hospital, also in Akron. Part of the reason for the organization’s success to date is that it used FCG to conduct a CPOE readiness assessment, notes Strauss, adding that both the CIO and CMIO were instrumental in leading the change. The latter, a former medical oncologist, “single-handedly put together the clinical side,” he says.

CPOE will follow Summa’s physician portal, implemented in 2004, and PACS, implemented in 2005.

Summa’s Minimally Invasive Surgery Institute is providing another significant technology-enabled thrust through its development of cardiac, gynecological and prostrate surgical techniques using a surgical robot. “Our surgeons are doing more and more robotically,” says Strauss. As a result, he says Summa’s Women’s Health Services now does 88% of its surgeries laparoscopically and in 2006 became the first in Ohio to perform radical laparoscopic hysterectomies with the da Vinci Robotic Surgical System. In 2006, Summa also became the fourth in the country to use da Vinci to perform transmyocardial revascularization procedures for people with angina.

Finally, in what Strauss considers a health-plan innovation, Summa is developing a risk-sharing program with large primary care physician groups under Prescription Part D to share savings coming out of hospitals with physicians. “Having a health plan gives you the ability to do this,” he says, because there’s an incentive to keep people healthy and out of the hospital. “We think it’s the future of healthcare,” says Strauss.

**St. Mary’s Hospital**

“If my hair wasn’t already white,” jokes Frank Byrne, MD, the coming year’s challenges would make it so. Byrne, president of 350-bed St. Mary’s Hospital in Madison, Wisc., serving an 18-county area in south central Wisconsin, was just a week away from going live with a new PACS. While acknowledging the hospital is “behind the curve” on the PACS, he says it’s going to bring great returns. “PACS is just a tremendous tool. We think it’ll be an emblem for a regional physicians’ network,” he says.

Hackensack University Medical Center, a 781-bed teaching and research hospital affiliated with The University of Medicine and Dentistry of New Jersey-New Jersey Medical School is the largest provider of inpatient and outpatient services in the state of New Jersey.

Founded in 1888, this not-for-profit, tertiary-care, teaching and research hospital serves as the hub of healthcare for northern New Jersey and the New York metropolitan area.

**The Scottsdale Institute is proud to welcome new member Hackensack University Medical Center, based in Hackensack, NJ.**

Hackensack University Medical Center
Besides PACS, St. Mary’s is refreshing its wireless infrastructure, upgrading to a VLAN (virtual local area network), not only for employee and clinician use but also for patients and visitors. The existing wireless network is not as ubiquitous as people have become accustomed to in everyday life. “We’re going to provide access like a Starbucks,” says Byrne.

A third major initiative is the hospital’s implementation of a comprehensive EHR from Epic, headquartered in Madison. While Go Live isn’t until August 2008, St. Mary’s has its hands full in 2007 finalizing the design/build/validate process, “or die trying,” quips Byrne. St. Mary’s will be the first SSM site to go live with it. A regional version of the product called EpicCare Everywhere, which may form the foundation of a RHIO, is being rolled out to link independent community physicians. “The major physician groups and public hospitals in Madison have all committed to the same vendor,” says Byrne, and the area’s institutions are working together to extend it in such a way they can share patient information wherever the patient might present for care.

Finally, St. Mary’s is putting in the infrastructure for a $174-million patient tower that will open in January 2008. “You’re literally changing the tires while the car is rolling down the road,” says Byrne.

Munson Healthcare
As president and CEO of Munson Healthcare, Doug Deck has one of the best jobs in healthcare. Munson is based in Traverse City, Mich., a sophisticated resort community of only about 19,000 people that sits on beautiful Traverse Bay, an extension of Lake Michigan on the northwest corner of the state. Still, 400-bed Munson Medical Center plays an important role as a regional rural referral center in a seven-hospital hub-and-spoke system serving 20 counties.

With a helicopter and a fixed-wing air ambulance to cover the 32 counties of Michigan’s Upper Peninsula, the tertiary care center performs 650 open-heart surgeries a year. “We fly all over,” says Deck.
Munson’s six smaller institutions include two wholly-owned, two managed and two affiliated hospitals. With 5,000 employees, Munson is the largest employer north of Grand Rapids.

The organization—which has 116 FTEs in IT, spends 3.5% of its operating budget on IT and uses Cerner for clinical IT—is ranked in the top quartile of hospital in terms of EHR adoption based on an FCG evaluation, according to Deck. Munson Medical Center has implemented a clinical data repository, clinical documentation and medical management as well as a PACS, RIS, pharmacy and bar-coding applications.

So, what’s a small but progressive delivery system have to work on in the new year? The answer is plenty.

Implementing CPOE is a major goal in the next two years, first to Munson Medical Center and then to the other facilities, some of which are more ready than others. A second major strategy during the next three years is Internet-based patient scheduling. “Within three years I want patients to be able to schedule their own visits for the hospital and ambulatory visits,” says Deck.

A third objective is to work toward EHR capability for the nearly 600 community physicians with whom Munson works. “They have results reporting now, but most physician offices are picking their more comprehensive office EHR system. We’ll do whatever we can do to help them within legal limits. We can’t give them hardware but we can give them access to software,” says Deck. Also a focus in the next year is an infrastructure issue: developing off-site disaster-recovery.

Finally, Munson, which deploys the largest home health organization in Michigan—its 400 employees cover 32 rural counties—plans to automate home health in the next year by providing each home health technician with a laptop computer.

Scottsdale Healthcare
As Scottsdale Institute members attending the spring conference realize, Scottsdale, Ariz., is a beautiful, affluent desert suburb whose population has burgeoned in the last several decades, mostly on the north side, where even the Mayo Clinic built a satellite. So, it’s not surprising that Scottsdale Healthcare has expanded along the same perimeter, growing from the City Hospital of Scottsdale in 1962 to a system today with three campuses, two hospitals, outpatient centers home health services and a wide range of community health education and outreach programs.

“They have results reporting now, but most physician offices are picking their more comprehensive office EHR system. We’ll do whatever we can do to help them within legal limits.”
More than 2,000 affiliated physicians and nearly 6,000 employees serve a population of 750,000 in the northeast Valley of the Sun, an area in which Scottsdale Healthcare controls 42% market share. Still, a third of the organization’s patients come from outside that area and that’s why it is building cancer care, cardiac, bariatric and spine services.

It made sense to start it in the middle with a ‘paper-lite’ system [rather than totally paperless] because IT integration with the other hospitals is so important,” says Sadvary. Implementing an ambulatory EHR is key because of the organization’s family residency program. “We’re finding it necessary if we want to get the best and brightest residents.”

Specifically, Scottsdale Healthcare is focusing this year on rolling out nursing documentation, including an eMAR (electronic medical administration record) and alerts and reminders. Also slated for implementation is an ED documentation program. And then there’s CPOE, which is expected to be complete in 2009. The system will unveil a personalized patient portal in 2008. “IT has a big role in our ability to deliver personalized care,” says Sadvary.

**Texas Health Resources**

As one of the largest healthcare delivery systems in Texas, Texas Health Resources (THR), a 13-hospital, 2,500-plus-bed integrated delivery system based in Arlington, must grapple with the challenges of being both a border and Gulf state. “North Texas faces an avalanche of population growth,” says Steve Hanson, executive VP, operations at THR. “In many ways, that is good. However, it puts lots of pressure on us.”

Population growth, albeit a significant factor, is just one of the forces buffeting a system serving diverse urban, suburban and rural populations within a
six-county, 200-mile wide region in north central Texas. Involvement by THR and its competitors in joint ventures such as imaging and surgicenters plays a big role in the market and that means those “information systems have to at least talk to the mother system,” says acting CIO Mike Alverson.

THR is focusing on four major areas in its 2007 IT-enabled strategies: 1) Epic EHR; 2) Physician offices; 3) Strategic vision; 4) New technology and innovation.

After implementing the EHR at its third-largest facility Presbyterian Hospital of Plano, this year THR is moving the clinical system into its largest, Presbyterian Hospital of Dallas. The organization will also continue its steady, multiyear rollout of its CPOE.

With less than 50 employed physicians, THR is placing a big emphasis on connecting with its 3,400 independent physicians. The organization is so mindful of engaging community physicians that CIO Alverson has even assigned a VP over its ambulatory strategy, which involves installing EHRs in physicians’ offices beginning this year and over the next several. Health systems have determined that they can provide up to 85% of the cost of implementing an EHR in a doctor’s office, given recent relaxations of the Stark law.

“Between 14% and 24% of doctors in our market have some kind of EHR, which means that at least 75% of them don’t have one,” says Alverson, adding that THR is exploring the idea of hosting EHRs remotely for physicians in an ASP (application service provider) model to make it even easier for the physician to automate.

Nearly three-fourths of THR’s medical staff has accessed its CareGate web portal and the organization wants to enhance that connectivity. “We’ve established KPIs tied to numbers of physicians using the portal to address not only patient care issues but to support physician email groups and CME webinars. We really try to link with physicians,” says Hanson.

Key to EHR deployment, says Hanson, is ensuring the organization can document savings. “We have a value-assessment model to document reduction in LOS and infection. We’ll start in 2008 budgeting against those savings. Whatever we can do we’ll measure,” he says.

Consumer-directed healthcare is THR’s other key area for strategic emphasis. The goal for 2007 and beyond is to continue to make the organization’s website as consumer-friendly as possible, increasing information transparency related to quality and providing tools for patient scheduling. The newly appointed VP for
ambulatory services also oversees consumer health. “We think delivering care outside the four walls of the hospital is becoming equally important as inpatient,” says Hanson.

As the result of a leadership retreat last year, THR developed a 10-year strategic vision that incorporates pursuit of Baldrige criteria as a measure of excellence. “IT will be a major component” of that quest, says Hanson, acknowledging that THR needs to operate more as an integrated system, especially given tremendous growth in the clinical arena. In terms of new technology and innovation, the organization’s goal is stay ahead of the curve by enlisting the help of both inhouse specialists and outside consultants to monitor IT and patient-care advancements. In particular, THR has recruited a PhD to build its research capability around the whole area of technology.

**Conclusion**

Whether you’re large or small, urban or rural, healthcare organizations across the country continue to roll out IT-enabled strategies led from the top down. Applications like PACS, CPOE and the EHR, which were once so costly, complex and risky, have become—while not quite routine—an accepted cost of doing business in the mission of care. Now we’re seeing an aggressive move by hospital systems to engage physicians in the community by supporting them with ambulatory EHRs. While the jury is still out (perhaps an indelicate phrase considering Stark) it’s clear that healthcare IT’s spread is an inexorable one.
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