Health Forum

TRANSFORMING HEALTH CARE DELIVERY

Achieving Better Outcomes and Affordability

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Report from the Front Lines

TRANSFORMING HEALTH CARE DELIVERY:

Achieving Better Outcomes and Affordability

When hospitals promote affordable and equitable care, they deliver better value, improve patient outcomes and satisfaction, and build healthier communities.

Even in the midst of change and transformation (and budget cuts), the mission of hospitals remains steady: to provide quality care to patients. Carrying out that mission has always been complex, but health care organizations of all types — large academic medical centers, community hospitals or public safety-net hospitals — face even more challenges today.

"Our constant task is to provide consistent, quality care [to patients] while being innovative and moving forward," Mary Longe, director, AHA Health Forum, American Hospital Association (AHA), told the gathered health care leaders at the AHA's offices on April 5, 2018. The group included executives and administrators from hospitals both large and small, rural and urban, public and private, and for-profit and nonprofit. Representatives from the Illinois and Michigan Health and Hospital Associations also participated in the discussion. They were all there to take part in AHA Health Forum's ongoing series of Critical Conversations on Transforming Health Care Delivery. The topic of the day: Achieving Better Outcomes and Affordability.

Each hospital faces its own set of challenges, but the gathered leaders had more in common than expected.

"We're all dealing with some of the same issues," said Jeffrey Peters, M.D., chief operating officer of University Hospitals in Cleveland, who was one of the day's speakers. All need to continue their mission of quality care in the changing health care landscape — and that means addressing both affordability and outcomes. Working together toward solutions increases the chances of success. "Our collective wisdom should at least move the bar," Peters said.

That's the idea behind the AHA Health Forum's Critical Conversations, which have been running for five years now. AHA experts and thought leaders in the field share their experiences and start a lively conversation with hospital representatives, often revealing solutions and approaches that enable health care improvement. At this Critical Conversation, participants heard invited speakers from University of Pennsylvania Health System (Penn Medicine), based in Philadelphia; Intermountain Healthcare, based in Salt Lake City; and University Hospitals, based in Cleveland. These organizations are leading the way to the future with strategies and technologies that put patients at the center, break down barriers and bring care closer to home. Many of their strategies employ artificial intelligence to capitalize on and maximize the power of data and to extend the capabilities and reach of clinicians, improve the health of patients and change how care is delivered.

FOCUS ON AFFORDABILITY

Affordability has reached a crisis point in health care. Nine out of 10 Americans have health insurance, yet out-of-pocket health care

Only when VALUE is the focus can hospitals balance both cost and outcomes. Hospitals and health systems are taking on this pressing issue.

expenses continue to rise.[1] The average health plan costs $6,000 per year with deductibles rising as high as $12,000.[2] One out of three Americans puts off health care because of cost.[3]

"Patients don't use what [providers] have to offer because they're afraid of what it's going to cost them," said Keith Poole, business transformation director for Franciscan Health, Olympia Fields, Ill.

Meanwhile, hospitals face their own financial pressures. Changes in reimbursement, increased regulation, provider shortages and resource constraints all make it more difficult for hospitals to stay afloat, let alone expand their missions.

"Affordability has become a focal point for AHA" and its members, said Priya Bathija, vice president of The Value Initiative, launched by the AHA in December 2017. Only when value is the focus can hospitals balance both cost and outcomes, she explained. "AHA leadership wants to take on this pressing issue."

Some hospitals are further down this road than others, Bathija said. "Hospitals have already done a lot to reduce costs in the past decade, but we believe more can be done."

Michael Phillips, M.D., chief of clinical and outreach services for Intermountain Healthcare, said, "Everything can boil down to two questions: What's the best thing to do next? What's the liability? You have to choose the next action that will produce the best value."

Chances are, that next step will involve doing things differently from what was done before. Innovation often arises through collaboration and disruption. "You can't do it alone," was a message heard again and again throughout the day. Identifying and framing important partnerships is part of the innovation and improvement process, whether that be with community organizations, vendors and suppliers, or even "competing" hospitals.

Some of these proposed solutions may seem uncomfortable at first.

"The transition from one ritual to the next — from fee-for-service to value, from [inpatient] to ambulatory — it's always uncomfortable in between," Kevin Mahoney, executive vice president and chief administrative officer, Penn Medicine, said.

Hospitals may have to disrupt themselves — or someone else will, added Phillips. Providers easily get caught up in their own view of the world, he said.

TAKING THE PATIENTS' PERSPECTIVE

"We need to change the perspective to that of the patient. [We need to remember that] patients might not be as eager to see us as we are to see them," said Phillips. The cost of care is not the same as the price of care, he pointed out. The cost is what providers pay. The price is what customers (or patients) pay. While hospitals look at costs from their own perspective of being able to pay staff and continue their mission, many patients are looking at it as a choice between seeking care and paying rent.

So, when talking about affordability, it's important to specify: affordable to whom?

"This came up regularly in our discussions [with hospitals]," said Bathija. "The consensus from our members was that we need to be focused on consumers."

"We need to deliver a price of care that people can access," Phillips said. If price — or other logistics — prevents them from keeping up with routine care, ultimately, they will end up in the hospital with progressed illness, which costs the patient and the hospital more.

Sometimes the barriers to care come down to logistics — the time and effort of making and getting to an appointment with a primary care clinician, then making another appointment for follow-up, specialty, or behavioral health care. Traditional hours of operation for outpatient services coincide with the working hours of patients who can't afford the time off to go to the doctor — especially if it involves a long commute. Evening hours are also a problem in areas where residents are afraid to be outside when darkness falls. That's why retail care, available at the pharmacy or big box store down the street — often at half the price — is so attractive. While many hospitals see this as competition, it may result in better outcomes. Anything that eases the burden on the patient makes it more likely that they'll follow through on care.

REDEFINING HOSPITALS AND HEALTH CARE

Taking the patients' perspective and putting their needs at the center sets the stage for a shift in health care delivery — and even a redefinition of what falls under the purview of health care.

After all, research shows that only 20 percent of health and well-being tracks back to access to care and quality of care. Socioeconomic factors — such as education, income, and family and community support — account for 40 percent. Health behaviors — such as diet and exercise, sexual activity and substance

Taking the PATIENTS' PERSPECTIVE and putting their needs at the center sets the stage for a shift in health care delivery — and even a redefinition of what falls under the purview of health care.

use — account for 30 percent, and physical environment accounts for 10 percent, meaning that social determinants and behavioral factors combined drive 80 percent of health outcomes.[4] And while no one is suggesting that hospitals alone can address these factors, "we have to at least acknowledge their role," said Bathija. "We want the consumer to be able to afford access to health care and services that promote health, while also being able to cover their other basic needs such as housing, transportation and food."

No one is immune to the social determinants of health, but the effects are seen most keenly at the nation's safety-net hospitals.

Physicians and other clinicians will have to embrace new ways of working together, integrating the role of technology and teamwork in delivering multidisciplinary, DATA-INFORMED CARE.

"We bear the brunt of the social issues," said Poole. Patients often have better access to food when in the hospital than when they go home afterward, he added. Lack of healthy food increases readmissions and affects overall outcomes — threatening the health of patients and driving costs up. While many hospitals have had long-standing relationships with community organizations to help connect patients to resources for food, housing and other needs, these relationships are increasing in importance and prominence. Cook County Health & Hospitals System has invested in housing and has partnered with local farmers markets to increase access to fresh produce for area residents.

But connecting patients to resources or building housing are often not reimbursable expenses. "There's not an ICD code to pay for some of this," added Douglas Elwell, deputy CEO of finance and strategy for Cook County Health & Hospitals System.

There may not be a code yet, but payers increasingly recognize the value of addressing nonmedical services that have a very real effect on health outcomes. Alfred Bolden, chief nurse executive at South Shore Hospital in Chicago, says his hospital partners with managed care organizations to provide food and nonmedical services that help patients stay out of the hospital. Patrick Gallagher, senior vice president of health policy and finance for the Illinois Health and Hospital Association, said he also has heard of a payer partnering to address social determinants of health, although most payers need to be more supportive of hospital efforts to address social determinants.

Most people have contact with the health care system just a few times a year. What happens in the "other 5,000 hours" — the waking hours not spent at the doctor's — that impacts health? How can health care intervene effectively and unobtrusively to improve health and health habits?

ACHIEVING AFFORDABILITY THROUGH ARTIFICIAL INTELLIGENCE

Technology has given us a wealth of information that can lead to better, more efficient care, Terry Talbot, vice president and general manager of Siemens Healthineers, said. But, it hasn't quite delivered on that promise yet. In fact, without ways to filter and process the data generated by diagnostic equipment, in laboratory equipment, apps or wearables, or stored in electronic health records, the amount of information can be overwhelming.

Talbot pointed out that 30 years ago radiologists diagnosed patients by "hanging eight or 10 images" on a light box. Now imaging technology generates "1,000 images — and then the patient comes in with a CD with the last 10 years of data," he said. It's more than any person can process.

This is where artificial intelligence (AI) comes in — or the use of computers and technology to perform tasks that normally require

human capabilities, such as visual perception and language comprehension.

AI can analyze those 1,000 images and identify the ones most likely to help the physician diagnose and treat the patient. Siemens Healthineers is also developing AI that can help "fill in the blanks" in diagnostic imaging, leading to shortened exam times, lower radiation doses to patients and increased image quality for more accurate diagnoses. The goal, Talbot said, is to provide diagnostic capabilities similar to a biopsy at lower cost and less risk to the patient.

"AI is vital for value-based care," Talbot explained. It can help pinpoint the best place to open a new facility, notify clinicians when to intervene with a patient and identify ways to increase the effectiveness and efficiency of care. The optimal use of data helps health care organizations make good business decisions while providing the quality care, Talbot explained.

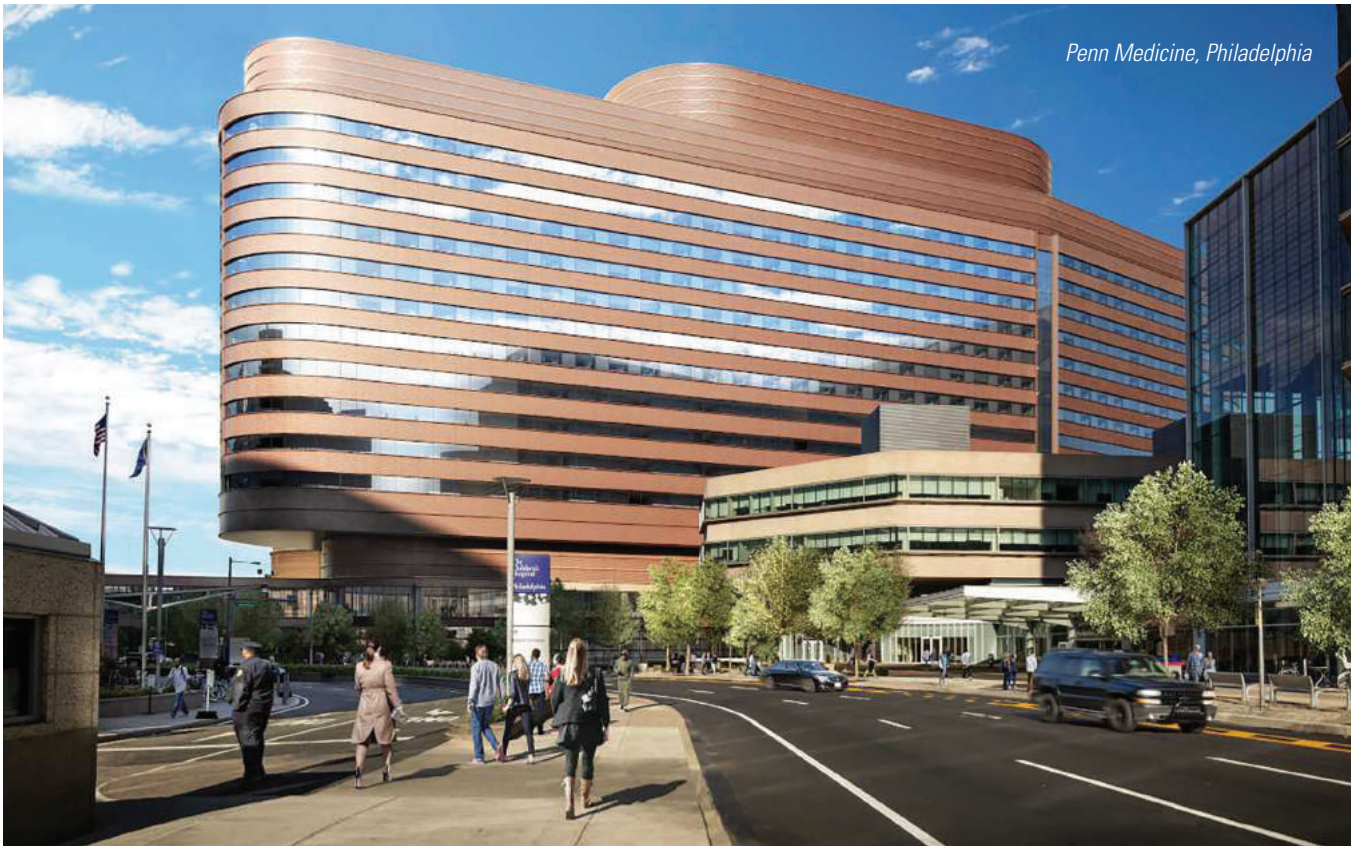
Bathija relayed the story of a hospital in Mississippi that gave free tablet computers to patients with diabetes. Each day, the patients checked in with an app to report their blood sugar levels. If everything was normal, the patients went about their day with no interruptions. But if values shifted out of normal range — or if a patient did not check in — the app notified a clinician for a follow-up call. Use of the app improved A1c levels and medication adherence and avoided hospitalizations. It also saved patients the time and transportation in getting to more frequent medical appointments.

DATA-INFORMED CARE

Data — and the ability to aggregate, analyze and operationalize them in ways that aid the decision-making process on both administrative and clinical levels — can help guide this process. Based on the evidence, hospitals may have to give on some things. Physicians and other clinicians will have to embrace new ways of working together, integrating the role of technology and teamwork in delivering multidisciplinary, data-informed care. Technology partners play a key role in supporting and innovating to improve access to effective, affordable care. The transition may involve some discomfort, but working cooperatively with the patient at the center will result in a health care system that can deliver affordable care and optimal outcomes for patients' evolving needs. ●

SCENES FROM THE CONFERENCE

On April 5, clinicians, hospital administrators, vendors and other leaders in the field gathered in Chicago for the AHA Health Forum Critical Conversations in health care event — this one focused on achieving better outcomes and affordability to improve the quality of care.



Penn Medicine, Philadelphia

Three Case Studies on Outcomes and Affordability

CASE STUDY 1

Bringing Patients into the Cockpit

Penn Medicine, Philadelphia

The "deconstruction of care delivery" is already well underway at Penn Medicine, says Kevin Mahoney, executive vice president and chief administrative officer, University of Pennsylvania Health System (Penn Medicine). The unifying theme to the transformation is staying connected to patients and bringing care closer to home.

When Mahoney arrived at Penn Medicine in the late 1990s, 90 percent of revenue came from the flagship hospital in Philadelphia. Now, outpatient revenue totals 57 percent of revenue — and it's going up. Projections are for 60-65 percent of revenue coming from ambulatory care in five years, Mahoney said.

Penn Medicine is moving increasingly to a "satellite concept" of spreading its triple mission of multidisciplinary health care, clinical research and education. By analyzing population forecasts, the health system identified "evidence-based locations" based on population growth, household income, market share, percentage of independent physicians and travel distance to the nearest hospital. "We are a research organization … and try not to compete with neighboring hospitals but rather emphasize the availability of clinical trials for more difficult diseases," Mahoney says. "Our distinction is integration."

A few years back, he encouraged his family members to use Penn Medicine for all their health care needs, including urgent care

and school physicals. He now sees that retail clinics can complement the services that Penn Medicine delivers. "We used to worry about [retail clinics] and fight it, but now we say, 'Let it go.'" If flu shots are less expensive and more convenient at a retail clinic, people are more likely to get vaccinated — which is better for health outcomes for the individual and the community.

Mahoney sees this as part of "bringing the patient into the cockpit," by giving them more control over when and how they seek care while also staying connected to them. That's why, after spending time and money bringing patients to Penn Medicine's portal, the health system recently signed on to cooperate with Apple's health app that gives patients access to all of their health information — from all of their providers, regardless of affiliation — through an app on their phones. "We want them to stay connected to us, even if they don't do it through our portal."

While it's not trying to compete with retail, Penn Medicine is applying retail concepts to increase access to care through extended hours, multidisciplinary care and bringing services such as chemotherapy, radiation oncology and even clinical trials closer to patients. When possible, it uses facilities 24/7 and pushes operations out of expensive buildings to increase affordability of care. Penn Medicine has also launched a secure telemedicine service for its staff to seek care for minor ailments from the convenience of their mobile devices or computers.

Penn Medicine's newest project is the development of a building complex with complementary uses that make care more accessible for patients. For example, the project combines a Penn Medicine outpatient surgery center with the convenience of a hotel nearby where family can stay, and patients can receive in-room physical therapy and be monitored remotely during their recovery. Staying at a hotel for $119 a night is significantly less expensive for patients than paying for an overnight in the hospital.

Even when inpatient treatment is necessary, bringing services to the patient — rather than moving patients from the intensive care unit to coronary care unit to general surgery — renders more efficient and effective care. "Every time we move [the patient], it adds a half day to length of stay," reported Mahoney. In Penn Medicine's new pavilion, the 500 beds are "acuity adaptable" so that the patient stays in the same room as his or her condition changes, and nursing staff and equipment change to adapt to the patient's needs. ●

CASE STUDY 2

Moving Care Closer to Home—and Beyond the Mountains

Intermountain Healthcare, Salt Lake City

Intermountain Healthcare, based in Salt Lake City, provides medical services to residents of Utah, Idaho and (increasingly) beyond, including 850,000 members of its SelectHealth managed care insurance plan.

In the past, the system has routinely flown complicated cases from rural areas to larger hospital centers. The sight of a medevac helicopter often meant a loved one was going away for a long time.

Now, Intermountain is working hard to bring care closer to home for its patients.

"We're supposed to be taking care of folks," says Michael Phillips, M.D., chief of clinical and outreach services for Intermountain, "but when we remove them from their communities, the family sees the patient fly away in a helicopter, and it's like a giant black hole." He cited a case of an 86-year-old patient with sepsis. If he were flown to care in Salt Lake City, his 82-year-old spouse would have a two-hour drive each way to visit him.

For a growing number of patients, ambulatory care may not require visiting a doctor's office or outpatient facility, let alone a hospital building.

Increasingly, Intermountain is finding ways to care for even complicated cases in local hospitals with an intensive care unit master clinician on consult. This approach has benefits for the patients, the clinicians, the facilities and the community by keeping patients closer to home, reducing mortality and length of stay, and helping local doctors and nurses gain new knowledge from working under an expert. It also helps keep open local hospitals, which are often the largest employers in small towns.

"We think of it as raising the bar for health care and extending our reach," said Phillips.

Previously, he says, the bar was "set for dancing limbo." "We want to set it for high jump, even if we get fewer transfers," to Intermountain's central facilities. Besides, he added, "nothing pro-

Intermountain Healthcare, Salt Lake City

motes your hospital like your doctors delivering great care in another hospital."

Intermountain is also increasingly using a multidisciplinary approach that gives patients access to specialty care or behavioral health care at the same time and place as their primary care visit, resulting in faster, better, more coordinated care. This not only results in better, more convenient care for the patient, it also saves money for the health system. "We realize $255 in savings in comorbid care by treating mental health during a primary care visit," Phillips explained.

Integrating care through telehealth, Phillips says, is easier for Intermountain since one-third of its patients are covered by Intermountain's own health plan. Reimbursement and licensing for telehealth remain issues for most providers.

Similarly, teleradiology can bring advanced diagnostic services closer to home, too. "There's no reason why you can't run most technology from a distance," he pointed out.

While the need for hospital beds will never completely go away, the bricks and mortar of hospital buildings are declining in value. In 1990, Phillips pointed out, the nation's hospital beds totaled 1.25 million. Today there are 800,000 — and only 60 percent are occupied. General-purpose hospital buildings are the asset that is losing value most quickly, he said.

On the other hand, he said, the most valuable assets in health care today are "the master clinicians who work inside your systems." By combining knowledge of those clinicians with the reach of the internet and the "community assets" of health systems, relatively small investments can reach millions of people, Phillips said.

The point of access? Mobile devices, such as smartphones and tablets. For a growing number of patients, ambulatory care may not require visiting a doctor's office or outpatient facility, let alone a hospital building, Phillips pointed out. These days, anyone with a cell-

phone can connect to care from any health system that offers online consultation and service delivery.

Through Connect Care, a smartphone app, Intermountain brings its clinicians directly into the home — allowing families the ultimate convenience of accessing care from their living rooms — and avoiding time in waiting rooms. "The only reason to have waiting rooms is because you haven't figured out how to time our product to arrive when needed," added Phillips. The direct-to-consumer program is Intermountain's fastest-growing segment, with 3,000 visits per month.

With smartphones and care through programs like Connect Care, Intermountain is no longer protected — or limited — by the mountains on either side of the service area. "The mountains won't protect us any more from competition from other health care organizations," said Phillips. But the mountains are also not a barrier to Intermountain's reaching beyond Utah and Idaho. ●

CASE STUDY 3

Improving Care and Affordability Through Artificial Intelligence

University Hospitals, Cleveland

Jeffrey Peters, M.D., chief operating officer at University Hospitals in Cleveland, encourages care teams to think outside the box. "If you can do it digitally, then don't do it in person. If you can do it ambulatory, then don't do outpatient," he said.

Artificial intelligence (AI) can assist in this process. University Hospitals is increasingly using AI to identify opportunities to increase efficiency and save money by cutting down on overuse of diagnostic testing and addressing unnecessary variation in care.

Doctors don't like to think about variations in care, Peters admitted. Having trained in a system that emphasizes the one-on-one relationship between doctor and patient, physicians don't like to compare themselves with their colleagues. As a result, they aren't always aware of differences between how they approach a case and how their colleagues handle similar situations.

University Hospitals established 25 physician-led teams, each looking at bundles of activities based on diagnostic-related groups, to help find best practices.

But exploring variation in care has paid off for the University Hospitals — and for patients.

University Hospitals established 25 physician-led teams, each looking at bundles of activities based on diagnostic-related groups, such as heart failure. The teams identified best practices (often by examining the habits of high-volume physicians who usually have the lowest rates of readmissions), then spread those methods across different facilities. Since they started this project, length of stay improved systemwide, although there is still room for improvement by individual facilities.

As a part of another AI project, Peters said his institution is looking at decreasing costs and increasing effectiveness of diagnostic testing with AI. "Payers often specify to use ultrasound first, then CT scan, then MRI, then biopsy," Peters explained. This "stacking" of tests is expensive and time-consuming — and exposes the patient to

University Hospitals, Cleveland

more risk with each test. AI can look at the entire landscape of care and the diagnostic spectrum, and figure out what test will be most useful to do first for that patient and situation, Peters explained.

The goal of these programs is to increase quality of care while also increasing affordability and saving money for the system. Those savings help the hospital support and extend its mission: "That money can go a long way to provide care to those who can't pay," or to advance a health care organization's mission in other ways, Peters said. ●

1. Kaiser Family Foundation. 2017 Employer Health Benefits Survey
2. Kaiser/HRET Surveys of Employer-Sponsored Health Benefits, 2017
3. The Commonwealth Fund. Mirror, Mirror 2017: International Comparison Reflects Flaws and Opportunities for Better U.S. Health Care
4. Institute for Clinical Systems Improvement; Going Beyond Clinical Walls: Solving Complex Problems, 2014

Resources from the AHA

The Value Initiative

The Value Initiative provides hospital and health system leaders with the education, resources and tools that they need to advance affordable health care and promote value within their communities. You can view the full list of resources at *www.aha.org/TheValueInitiative.*