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Executive Dialogue

Innovation

Transforming Care Delivery for the Future

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Innovation: Transforming Care Delivery for the Future

The transformation of the health care delivery system brings both challenges and opportunities to hospitals and health systems. Organizations must think outside the box to develop more efficient, effective ways to deliver care. Creating a culture of innovation is a business imperative. Achieving a culture of innovation, however, remains a challenge for hospitals and health systems. Health Forum convened a panel of health care executives and industry experts April 8 in San Diego to discuss new innovations in care delivery and ways to foster innovation within organizations. Health Forum would like to thank all of the participants for their candid discussion, as well as Siemens Healthcare for sponsoring this event.

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MODERATOR (Maulik Joshi, Health Research & Educational Trust): We're experiencing a great deal of innovation in care delivery in the form of accountable care organizations and bundled payments, among other things. From your perspective, what are the most promising innovations you've seen in your organizations in the last couple of years?

GLENN CROTTY, M.D. (Charleston Area Medical Center): We started the Baldrige journey at Charleston Area Medical Center six years ago. We use the Baldrige definition of innovation: a change in process or performance that results in a greater level of performance. We've developed an innovation system and we are also implementing ISO 9001 to help us with process improvement.

We adopted the Toyota Production System in all of our nursing units. We've saved enough time and effort to be able to walk between West Virginia and California at least three or four times. We now have a fully integrated pharmacy delivery system. We have redefined patient care, improving our communication methods with our patients and their families. We've also improved our communication with our suppliers. And we've engaged our residents and students in our improvement efforts. They actively work on hospital- and resident-related issues.

MODERATOR: It sounds as though Baldrige has really propelled your overall organizational approach.

CROTTY: Yes. We put together a 50-page application for Baldrige and that process helped us tremendously. It engaged the workforce in our improvement efforts. For example, we monitor our use of bundles in all of our units. They are audited daily. If bundles are not being followed 100 percent of the time, corrective action must be taken immediately. Since we began this process, one of our intensive care units has gone 14 months without a central-line infection. We've had maybe two ventilator-associated pneumonias over a 15-month period. We've made great strides in how we improve care by engaging our workforce in these efforts.

GREGG VELTRI (Charleston Area Medical Center): From an information technology perspective, the downstream impact of that has been amazing. One of the problems with implementing some of these complex systems in the health care environment is unwillingness to change. Because of Baldridge and ISO, along with workforce engagement, that hasn't been a problem. The workforce now is accustomed to process changes. We've had great physician participation with our electronic health records. In previous hospitals where I've worked, it was always a fight to get physicians engaged in these initiatives because they didn't see the value. Physicians at Charleston see the value and they volunteer to be on committees to work with IT to design algorithms to make care

One thing we all need to understand is that everything we do is not going to work. We need to have a culture that's willing to try new things and learn from them, whether or not we're successful.

Joseph McDonald

better. The buy-in has really been fabulous.

MARK GABELMAN, M.D. (Palisades Medical Center): I find that physicians are more on board because they know they have to be. In every hospital they go to, there is an EHR. There's much less resistance than there was a couple years ago.

LINDSAY MANN (Kaweah Delta Health Care District): At Kaweah Delta, we're moving on multiple fronts of innovation. First, we are working to develop a more robust rural health clinic system that allows patients to receive longitudinal care, as opposed to waiting for their conditions to worsen and be seen in the emergency department. This effort will provide greater access to physicians. We're currently developing five rural health clinics.

In addition to preventive care, we are focusing on episodic care, in the ED and beyond. We are expanding the ED, but also developing urgent care clinics and other quick-care sites. On the chronic care management front, we are developing clinics for patients with congestive heart failure and diabetes, among other things. These clinics are expressly charged with managing the patient post-discharge to avoid unnecessary readmissions. We have a significant patient population that continues to come to the hospital for chronic conditions that are out of control. The chronic disease management clinic will monitor patients on an individual basis with medical direction and case management to make sure that the population is treated appropriately.

In the acute environment, we've implemented enhanced rapid-response systems that allow us to be far more attuned to a patient's vital signs and more responsive when they are beginning to emerge as unstable. The acute care hospital will continue to be a vital part of the health care system. Those who have projected the demise, or the lesser importance of acute care facilities, aren't reading the tea leaves correctly. In fact, with the aging of our population and their overall acuity, we'll see inpatient care continue to be a major part of the dynamic. Finally, we are working on an IT system that brings every single site of care, whether rural, episodic, chronic or acute, into a unified system of communication among physicians, hospitals and outpatient care centers so that we really have what we call a system.

As to culture, one of the things that needs to change is how IT is run inside health care organizations.

Gregg Veltri

JOSEPH McDONALD (Catholic Health System): Catholic Health is a different animal in some ways. We've only been a system since 1998 and I joined the organization in 2003. Like many organizations, we've redesigned ourselves. Our world is built around regional growth, partnerships, and physician and service alignment. We worked hard at getting each organization to let go of its prior viewpoints so they all could see themselves as one organization. We invested heavily in technology. And we engaged employees from all sides to help build the new organization. We have talent. Western New York is a proud area and we had to develop a level of confidence within the organization and the medical staff.

Our medical staff used to complain that it was difficult to attract people to the area. It was important to change that mindset so that we could sell it. We decided to transition several physician hospital organizations into one large independent practice association. We have about 1,000 now that are clinically integrated. We have about 80 employed physicians who are devoted to mission areas. We have very strong collaboration between our leadership and the IPA, as well as with our payers. The payer part may sound like a bit of a contradiction, but we can demonstrate our clinical performance so it makes sense for them to partner with us.

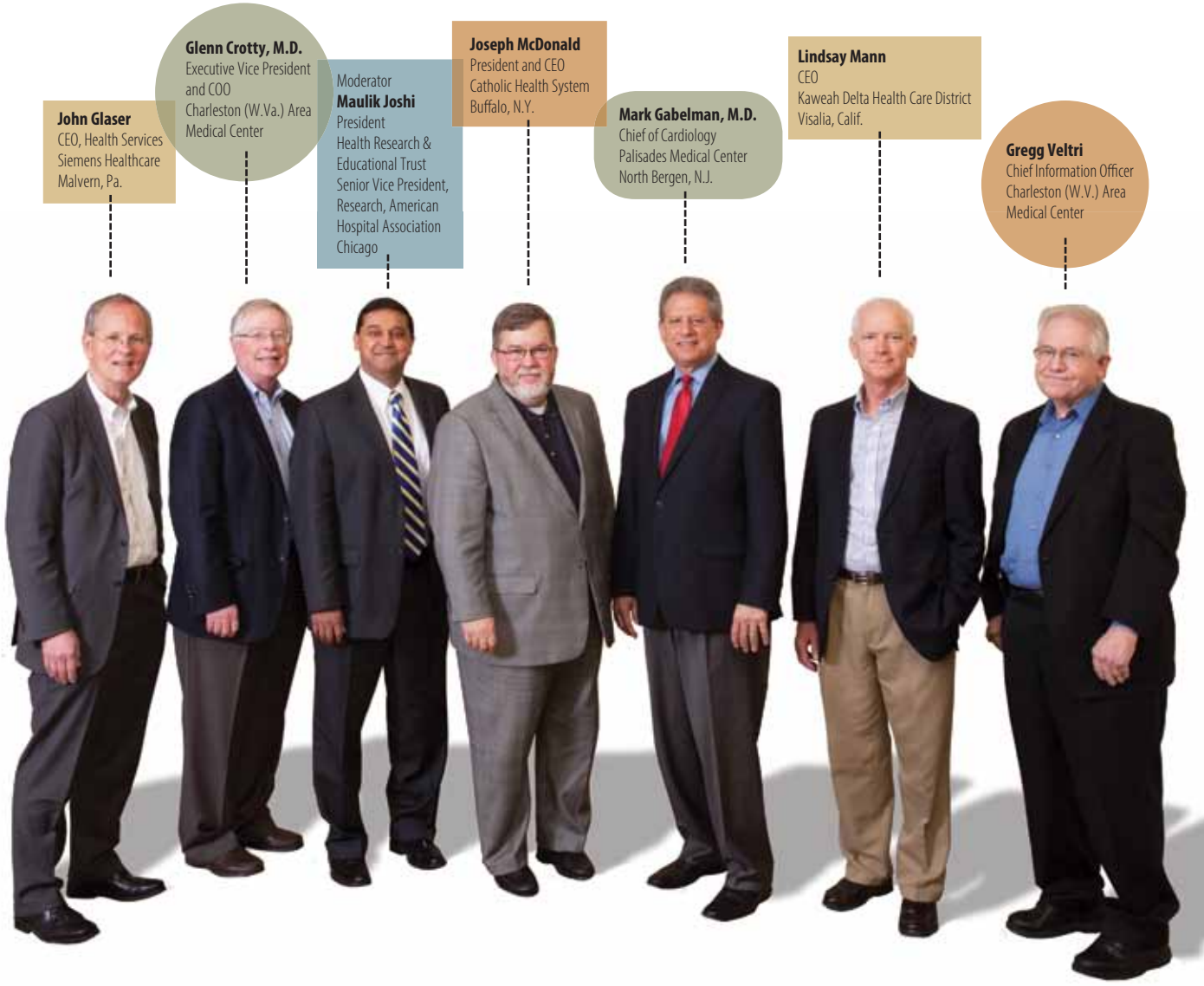
MANN: I'd like to expand on the idea of clinical integration and its importance. We have been working for about a year now on clinical integration strategies, particularly with our hospital-based physicians. We realized that our performance is under increased scrutiny given the shift toward value-based purchasing and pay for performance. There's no way around it. Hospitals and their medical staff must work together to achieve the best results for patients in terms of safety and efficiency. Together, we have to be working deeply on those objectives. They are grounded in a high principle and pragmatism: providing patients with the best possible care.

When I say "working deeply," I'm referring to our conversations and efforts to work toward well-articulated outcomes. This includes outlining the responsibilities of the organization — focusing on mission and business imperatives. We also looked at our nursing staff to define how they can support our efforts. We

looked at what we need from our physicians to enable them to make medical decisions that are not only designed to produce the proper outcomes, but also to make efficient use of the organization's resources. These discussions do not happen effectively or, in some cases, at all under a traditional hospital independent medical staff model. Clinical integration creates an infrastructure that clearly articulates goals and strategies. We can identify and reward physicians for their efforts to curb unnecessary magnetic resonance imaging in the ED, for example. Radiologists may take a hit in reimbursement, but we can reward them for saving institutional resources. We can recognize their efforts to improve patient care.

Another example would be the use of ultrasounds in the ED. Ultrasound screenings are an accepted, patient-centered practice that helps to move the diagnostic process forward. However, the use of ultrasound also pre-empts professional fees for the radiologist. We need

Panelists



to acknowledge that some patient-centered practices have economic consequences. Under a clinical integration model, we're able to acknowledge them and make the necessary adjustments.

GABELMAN: Two things are going to help clinical integration. One is transparency. It becomes beneficial for everyone to show better outcomes, and the public is going to know about them. The other thing is that many hospitals and systems are purchasing physician practices. As owners, hospitals and health systems can help to guide what best practice truly is.

As chief medical information officer, I spend a great deal of time focusing on patient-centered care. As I mentioned before, we have greater response from our physicians. When we installed computerized provider order entry, 90 percent of the physicians were entering those waters within six weeks. That was good.

On another note, about five years ago, there was a real hesitancy among the medical staff about adding nurse practitioners. Now, they are accepted and viewed as valuable team members. The other thing that's made a big difference is remote access. Last night, I was able to read EKGs from my hotel room. Our physicians can access the information they need as long as they have Internet access. That's a wonderful innovation. When I'm not traveling, I can review charts and lab results in the morning before work, so I can order tests and speak to a nurse right away. I have a big jump on things. I can get calls in the evening and review labs and X-rays from home instead of having to go in. I have so much more information today than I did just four years ago. It's a tremendous step in the right direction.

Everybody hates the word "standardization," but it's through standardization that we can create a culture of clarity around patient safety and quality.

Glenn Crotty, M.D.

MANN: IT is like oxygen for the health system. And I'm not talking about meaningful use. I'm talking about its fundamental importance as a tool to support the practice of evidence-based medicine and to identify emerging opportunities for clinical care. It's not a matter of mere communication; it's a matter of enhancing decision-making. The centrality of this integrated information system to enhance clinical quality and efficiency simultaneously can't be overstated. It's a critical development, and it's not even slightly related to meaningful use. That's a big incentive to move forward.

MODERATOR: John, what are some of the more significant technological innovations that you are seeing today?

JOHN GLASER (Siemens Healthcare): There are three generally recognized categories of innovation: product, process and business model. Product innovation is material to the degree that it enables process or business model innovation. That's what really makes a difference here. We see that in retail. The retail industry is dramatically different today, both as a business model and as a process, because of the Internet. Health care is going to be dramatically different as well, as we transition to value-based care.

In some ways, technology leads and then the maturity of understanding how to apply it follows. Sometimes the process innovation hits a wall. But, by and large, people see opportunities with technology. One of the great challenges has been the diversity of different ideas coming across the board. We need to find commonalities. On the one hand, hospitals and health systems need to be flexible to accommodate this diversity. On the other hand, we need to leverage its commonality. There are a couple basic ideas that come out of that. The first is that people increasingly want to deliver care across the continuum over long periods. To do so, we need an integrated database and suite that cover inpatient and outpatient care — the whole spectrum.

Second, a great deal of innovation increasingly is centered on process. We are working to enhance efficiencies and effectiveness in the care delivery process. That results in the notion of workflow technology being critical to

monitoring the process, etc. As we contemplate bundles and episodes of care, we're looking at new business model foundations. We will need analytics to assess how these things are working across the board — in all points of care. We'll need health information exchange because our systems will not be everywhere. If you want them to be, you'll need to be innovative.

We're all focused on patient-centered care and that's the commonality that exists. At times, I feel that if we froze technology development — for instance, there won't be a single technology innovation for the next year — we wouldn't be stopped in our tracks. The hardest part is changing the organizations we lead to accomplish all that we need to do. That takes a long time. And that's what's the most potent, frankly.

McDONALD: I agree. The challenge we face is leveraging the new. We need to make purposeful decisions about how we are going to invest our energy around new innovations. We have to be careful not to overwhelm everyone. That takes some criteria: Why do we adopt certain things and not others? How much change tolerance does the organization have? That's the key calibration issue that CEOs have to look at. What's the risk tolerance of the organization right now? How much progress can we make? It's usually more than we think. We have to be respectful of their bandwidth and their intellectual ability to deal with change. Their big fear is that every time I go away to a conference, I come back with a new agenda item. That's a challenge we all probably face.

MANN: Not everything that can be done is actually beneficial. I'll give you an example. Da Vinci robots have proven successful in prostate and some gynecological procedures. Both physicians and nurses have been so enthusiastic about the opportunity to innovate that we have equipped the da Vinci for mole removals. General surgeons have asked whether the tool might apply to abdominal surgery. And, indeed, it may be capable of doing that. But at what cost? Is it really superior? I'm not trying to conclude anything here, but these are relevant questions. The cost to perform surgical procedures with the da Vinci against reimbursement is often a financially losing proposition. It's well worth the investment given the superior

We need to be careful not to become too risk-averse so that we're not as innovative as we need to be.

Lindsay Mann

outcomes in some procedures. But, if we don't demonstrate a real advantage to patients, it may not be worth the expense. When talking about technological innovations, we need to talk about the benefits to the patient, as well as the limitations of the technology.

GABELMAN: Low change tolerance isn't necessarily a problem. Physicians more than others, but people in general, don't like change. However, everybody is adaptable. If you told me that Palisades would have an EHR system six years ago, I would have said the physicians wouldn't use CPOE. But they didn't really have a choice. They did adapt and I think that we overstate people's unwillingness. We have to make them willing to change.

MANN: We have to demonstrate the benefits of the proposed change.

GABELMAN: Absolutely. That's exactly what happened with the nurse practitioner example that I discussed before. They weren't accepted initially, but once we demonstrated the benefits, they were accepted by everybody.

MODERATOR: How have you fostered a culture of innovation with your organizations?

McDONALD: Well, there are thousands of consultants who want to take you through a cultural enterprise. I'm sure there's a place for that, but I also believe culture is built by actually doing the work. You can't just sit back and think of the nuances. You have to focus on what's important and figure out how to bring the best focus and attention to it. Success breeds a positive culture.

One thing we all need to understand is that everything we do is not going to work. We need to have a culture that's willing to try new things and learn from them, whether or not we're successful. The da Vinci mole program didn't really take off as we thought it would.

CROTTY: Gregg, tell them about the workflow engine and how it's used to facilitate improvement.

VELTRI: The workflow engine is an interesting tool to drive errors out of the system and drive reminders and process of care standards into the system. I call it the dream engine because if we can dream it, we can do it with the workflow engine. It's a little more complicated than that, obviously, but you can drive safety initiatives with the workflow engine. We can look for things like multiple blood thinners being prescribed to a patient that might cause harm, for instance. We can add indicators, such as lab values and vital signs, to show trends of declining health further in advance. Being able to access the data in real time and have an engine watch that data are key to what's going to happen in health care. It's not only the analytics, it's the things that workflow engines and rule engines will react to in a much more timely manner. They don't make a mistake unless something is programmed incorrectly.

As to culture, one of the things that needs to change is how IT is run inside health care organizations. Typically, IT is run the same as in other organizations, such as banking. We take orders and we fill those orders, sometimes better than others. But it's more of an order-taking, who-screams-the-loudest kind of business. IT, since it's now become a strategic enabler inside health care, also has to be a strategy in itself. It has to match the organization's strategy and it has to help move the organization to where it needs to be in the future.

You can't play catch-up with IT. Adding 20 full-time employees doesn't make it go faster. You have to plan for where the organization is heading. IT needs to be embedded with the clinicians, where they want to take patient care and where they want to drive quality. We need the platforms and infrastructure in place beforehand.

CROTTY: Everybody hates the word "standardization," but it's through standardization that we can create a culture of clarity around patient safety and quality. There's still a great deal to be learned outside health care, from the nuclear power and airline industries, for example. They have processes in place to identify problems in advance, so they can be corrected in a timely manner. As Gregg was saying about the workflow engine, we have to keep learning about our processes of care and developing systems to help us learn from each defect that occurs. We need the capability to organize our data systematically, so we can see patterns across the organization and use those to develop preventive action plans. We can't be satisfied with simply taking corrective action.

GABELMAN: The workflow engine can be helpful in guiding physicians and other practitioners. We certainly want to err on the side of caution, but we need to be careful that we don't err too much on the side of caution. If we're getting thousands of warnings a day, it's the same as getting no warnings a day, and that's a very tough tightrope to walk.

CROTTY: We can only do that through learning. You cannot design that up front. You have to learn what is the appropriate number of alerts and what situations need to be put forth.

MANN: That's why involving physicians and other clinicians early in the adoption process is so critical. They need input on the design.

Key Findings

- Understanding the organization's capacity for change is critical in any transformation initiative. Small tests of change may yield greater outcomes and sustainability.
- Hospitals and health systems should look for ways to involve the community in health system transformation.
- Population health management will be a significant driver of innovation in patient care delivery.

They need to help determine desired outcomes. That's how we create a culture of collaboration. If we have their input from the outset, we'll be a more resilient organization relative to adoption of innovation and technological changes.

GABELMAN: I have one more brief point. Clinicians all want the same thing. They want better patient outcomes without spending more time or losing money. If there's a system that provides that, they will accept it.

MODERATOR: I want to get back to the concept that it's OK to fail. One of the challenges we have in health care is that we are afraid to fail. How do we overcome that?

McDONALD: We have to be transparent with both our successes and failures. Otherwise, we will lose the opportunity to learn from them. That's part of the culture, too. If we have a suboptimal outcome, we have to put it on the table and talk about it. Where did the system break down? What can we do differently?

MANN: Part of our failure intolerance is, of course, because of risk. There's more at stake in what we do. It's much different from a ball game. We have a higher standard that we need to meet. We need to be careful not to become too risk-averse so that we're not as innovative as we need to be.

McDONALD: I like the paradigm of demonstration projects: We believe this is a way to move from here to there. It helps us to understand what we're trying to do. And we can't focus simply on the accomplishment. We need sustainable improvement.

GABELMAN: Most organizations don't enter into a new project having thought about what happens if it fails. It's something we've started to do. Even if there's a 10 percent risk of failure, we need to have a fall-back position.

GLASER: There was some work done probably a good decade ago by a guy named John Seely Brown who looked at organizations that were effective in competitively applying IT and were able to distinguish themselves from the organizations they were competing against. He said the innovators did an almost never-ending series of small- and medium-sized improvements. The step function is risky with many moving parts. The organization may not have a clear understanding and in many instances, the steps were not successful. But they didn't preclude big innovation. Brown's work suggests that the never-ending series of small- and medium-sized changes moves the needle and over time results in significant change. The steps collectively add up just as, collectively, water created the Grand Canyon over time.

Organizations need to empower clinicians to be innovative and to provide them with the tools to support their efforts.

John Glaser

This factors into what we are discussing today. It's sort of a short-cycle learning: Try, learn, try, learn, and never bet the farm on any one of these things. It's creates a culture that encourages innovation. Organizations need to empower clinicians to be innovative and to provide them with the tools to support their efforts.

CROTTY: One of the challenges we face is how to capture and learn from our efforts. Toyota does this better than anybody in the world by using what they've learned to improve organizational development and then sharing that knowledge.

MANN: One driver of innovation we haven't addressed sufficiently is population health management. In our system, we first look at populations we must manage: our own employees. We have 3,700 employees and if we add their beneficiaries, we're looking at about 9,500 covered lives. We're making efforts to design our benefits packages to encourage wellness. At the same time, we're turning to our community. We realize that we need to break the community down into manageable populations, so we're looking at high-risk populations with such conditions as asthma, congestive heart failure and diabetes.

A great deal of innovation will occur when

we begin to think of ourselves as health care systems and not simply as acute care providers. Acute care is going to remain vital in the health care system and anyone who suggests otherwise is wrong, in my opinion. But the acute care system, currently and in the future, will be far more driven to innovate around approaches to managing populations.

McDONALD: I agree that acute care still will be an integral part of the health care system going forward. Right now, organizations need to find the right equilibrium. How much acute care capacity do we need in the marketplace? It's about treating patients in the best possible environment for their respective conditions. There always will be this dynamic in health care to balance your capacity and strengths. The challenge will be to look at the nature of your health system on a regular basis. How much acute care and home care capacity do we need? With whom do you need to partner to create a network that's substantive and supportive? We've closed a hospital and we've closed long-term care facilities to find that new equilibrium and balance.

VELTRI: Getting back to population health, I believe it's going to strengthen the bonds between affiliated physicians and hospitals. Population health isn't a hospital problem nor an affiliated physician problem. It's everybody's problem. The bounce-backs and readmissions and all those things have to be managed as a team. That's going to forge those bonds even closer because everybody has the same problem.

MODERATOR: How can we involve patients or other stakeholders in innovation? We hear a great deal about where we need to go, but our communities are not necessarily ready for this type of innovation. What are you doing to involve your patients and communities in this innovation?

McDONALD: We put care coordinators in all of our physician offices. Their focus is chronic disease management. They follow up with patients to ensure that their lab tests have been done. They also make sure patients are filling their medications. I think that's innovative.

GABELMAN: IT helps that a lot, because you need to ensure effective communication. The patient who's going back to his or her primary care physician needs to have access to all the information, and that helps.

MANN: Ensuring personal responsibility on the part of the patient is difficult to manage. Hopefully, with case managers and proper education, we'll be able to build a greater sense of personal responsibility among some of our patients. Case managers need to develop a care plan that is sensitive to each patient's educational level and socioeconomic position. They have to look at the presence of social support structures. If an individual has an engaged family, we need to include them in the care plan. If they lack social support structures, we need to communicate with them in ways that will help them manage their care. We need to enhance personal responsibility and one way to do that is through case management, communication and other clinical support structures. I'm not speaking of personal responsibility purely as a moral platitude, but as a well-supported idea that provides education, case management and communication.

GABELMAN: I agree with you fully. It's important. The next level is prevention. How do we reach patients before they're in the system? How do we help patients to control their cholesterol and blood pressure so they don't need chronic care management?

VELTRI: Don't you think there's going to be an app for that? I believe that the whole paradigm is going to change through mobile technology.

GLASER: Well, I struggle with this area, because

I'm excited that moving forward, everything is going to be evidence-based.

Mark Gabelman, M.D.

I think it's really hard and complicated. In many ways, we have not been as effective as we'd like to be. At times, collectively, we do not understand behavioral economics as we should. There is a science behind how people make complex choices that we don't really understand. We focus on patient-centered care, but what if a patient doesn't want to make a change? What if a patient is happy with how things are? We have to be responsive to the individual and not just the disease.

GABELMAN: It's the clinician's job to explain to patients the ideal course of treatment and the reasoning behind it. We need to give patients and their families as much information as we can to help them make decisions. But afterward, we need to step back. We're not going to stop treating patients if they choose not to follow our recommendations.

MODERATOR: Health care is local. What do you see in your own market that excites you?

MANN: I just reread *Good to Great.* The opening sentence is, "Good is the enemy of great." What excites me about our current health care reality is that it is increasingly becoming transparent and driven by outcomes. That is a fundamentally good thing, because it creates motivation for physicians and health care organizations to work together to improve outcomes. The patient comes out ahead and ultimately will be making decisions based on transparency. The concept of rapid-cycle improvement is becoming an imperative for any health care organization that wants to be great at what it does. I know of no institution that doesn't have that fundamental aspiration, but the capacity to translate the vision into reality is what sets organizations apart.

McDONALD: The thing I'm excited about, frankly, is that young people are coming into health care with excitement, energy and the ability to accept new challenges in front of them. They will have a wealth of technology at their fingertips that we didn't when we started out. They'll be a smarter, more balanced workforce. I believe their ability to have empathy with their patients is going to be stronger, too.

GABELMAN: I'm excited that moving forward, everything is going to be evidence-based. In cardiology there's so much that's evidence-based that isn't followed 100 percent, but now we're going to head toward following it 100 percent, because people are going to be rewarded based on evidence-based practices.

GLASER: When I was in graduate school at the University of Minnesota some time ago, I was a sociologist and spent six months living more or less on the pediatric oncology unit. I will never forget watching a seven-year-old die of leukemia. And I thought, "That shouldn't happen. Seven-year-olds shouldn't die." I watched the unfathomable grief on the part of the parents, but I also saw some of the most extraordinarily skilled physicians and nurses that I've ever seen, both in the human and clinical sense. I'd like to see us continue to take steps over the next several years to enhance diagnostics and achieve breakthroughs in research, so that we can limit suffering while at the same time preserving the ability of those incredible people — physicians and nurses — to not only be wonderful human beings, but also phenomenal clinicians.

Thanks

Health Forum would like to thank the panelists for taking part in "Innovation: Transforming Care Delivery for the Future," with special thanks to our sponsor, Siemens Healthcare.

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