The Joint Commission

HIGH RELIABILITY TOWN HALL

THE JOINT COMMISSION

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Cathy Barry-Ipema: Welcome to today's Town Hall for senior leaders of Joint Commission accredited hospitals. I am Cathy Barry-Ipema, chief communications officer at The Joint Commission. High Reliability can be defined as a consistent excellence over long periods of time. Today's Town Hall will address what hospitals can do now to take major strides toward High Reliability and unprecedented levels of safety and quality. Dr. Mark Chassin, president of The Joint Commission, will open the program. If you have not already read the article on High Reliability that appeared in the April issue of *Health Affairs*, I strongly urge you to do so. You can download a copy from The Joint Commission's website at www.jointcommission.org/healthaffairs. Joining us today is Dr. Chuck Buck, a public member on The Joint Commission's Board of Commissioners who served on the committee that produced the Institute of Medicine reports, "To Err is Human" and "Crossing the Quality Chasm." Since retiring from GE, Dr. Buck has served as a consultant focusing on creating a consumer-centered health market that connects active consumers with providers committed to process excellence. Also joining us is Tom Priselac, president and CEO of Cedars Sinai Health System. He is a member of the Center for Transforming Health Care's Leadership Advisory Council and has participated in the Center's hand hygiene, surgical site infection, and preventing avoidable heart failure hospitalization projects. Currently, Tom is chairman at the American Hospital Association Board of Trustees. Now, it is my pleasure to introduce Dr. Mark Chassin.

Mark Chassin: Thank you, Cathy, and thank you all for spending the time with us today to talk about this subject. Let me assure you that High Reliability is not an abstract or an academic topic; although, it certainly has its academic aspects. That's not why we invited you today. What

I want to do in the next few minutes is introduce the idea of High Reliability; why I believe it can help hospitals improve safety and quality in ways that we have not been able to achieve to date; what hospitals can do now to get started or to make further progress down the road to High Reliability; and what The Joint Commission's role is likely to be and could be in that whole process. So, the first premise for taking on this new topic is that I believe we need to do something different in quality improvement—and the basic reason is despite all of the efforts, and there have been enormous efforts over the last 10 years in particular, to improve safety and quality and we have made notable progress in some areas. We've indeed established consistent excellence; aspirin and beta blockers for heart attack survivors is now averaging 98 percent among hospitals and 97 percent of hospitals are over 90 percent of performance on those measures, but those examples are few and far between and I think we would all agree, certainly our public stakeholders are clamoring for much more rapid improvement that extends over more aspects of the way care is provided and we certainly heard that from Secretary Sebilius and Don Berwick as recent as yesterday in the launch of the new CMS initiative. So, the fact that we've made some progress is important, but it's not enough. And, in fact, if we look across the globe, these problems are global problems. Nobody in health care has figured out how to achieve high levels of safety and quality and sustain them over long periods of time. So, as we outlined in this article in *Health Affairs*, we believe that we need to look outside of health care for examples and tools and guidance about how to get to much higher levels of safety and quality. And the article in *Health Affairs* lays out the case that High Reliability, in our judgment, is the best way to organize our efforts to produce the next generation of much more effective, more rapid improvements in safety and quality. What we can learn from organizations that are outside of health care that have managed to deal with very serious hazards much more successfully than health care has, I think is really important. When we're talking about organizations known in this literature as High Reliability organizations—commercial air travel, aircraft carrier, flight decks, even nuclear power—have much better safety records than health

care does and what they actually have in common is that they have very effective process improvement tools that allow them to create nearly perfect processes and a safety culture that wraps around those very highly performing processes and keeps them working at high levels of safety over long periods of time. Now, it's very clear to all of us that health care is not the same as flying a plane, it's not the same as running a nuclear power plant, so we can't simply take the practices from these industries and move them into health care. We need to adapt the learnings and translate them, but we can learn a lot from how they have achieved much higher levels of safety and quality. So, our analysis of this literature and this science suggests that even though no health care organization has gotten to these kinds of safety levels, the research really shows us only how High Reliability organizations function to maintain their very high levels of safety, but they don't really tell us much about how we can move from where health care is today, not at High Reliability, up to that level. And if you look at the literature, what defines High Reliability organizations, is what one of the authors, Karl Weick, has described as an "attitude or atmosphere of collective mindfulness," which really means that everyone in these organizations is empowered, expected, and encouraged to look for small clues that something is different today that means that there's a problem that may result in harm or an adverse event and those kinds of reports enable these organizations to fix problems when they're small and before they do harm.

So, the challenge for us is really to figure out how we create in hospitals and how we help hospitals and other organizations create an environment in which that is the norm and not the exception. So, as we outlined in this article in *Health Affairs*, we believe that there are three critical changes that health care needs to make in order to start down this road and to make rapid progress toward High Reliability and the three are outlined in some detail in the paper I wrote and described them in that level of detail. And now, just to summarize, the first is: Leadership commitment; the second is: To adopt and fully embed all the principles of a safety culture throughout hospitals and throughout health care organizations; and the third is: To adopt

the tools of highly effective, what we're calling, robust process improvement, and what we mean by that is a group of these tools that came out of industry in the last 10 to 15 years—Lean and Six Sigma—formal approaches to change management, so that we can create processes that are much more highly performing than the ones that we have now. But if we talk about each of those very briefly, leadership commitment really means the full panoply of leaders: boards of trustees, senior management, CEOs, chief medical officers, chief nursing officers, committing to beginning or continuing, if you've already committed, the journey to zero or near zero quality failures in literally all quality and safety processes that are critical to protecting patients. And without that commitment, there's really no hope of making rapid or even substantial progress. And then the full elements of the safety culture that support High Reliability by encouraging employees to report problems when they're in their early phases, that means there is a level of trust among employees and between employees and management that messengers won't be shot when they bring bad news and that reports will be acted on using highly effective tools for improvement, like robust process improvement tools, so that the problems are fixed and harm is avoided. Now, from my perspective, all of these elements of embedding High Reliability can be measured, so setting objectives for how progress is assessed, setting goals, and measuring progress—monitoring it—can be done just as you currently monitor progress on financial goals, on expanding volume, on improving patient satisfaction, and this, I think, sets up an outline for how we can move forward. What you'll find in the back of this article in *Health Affairs* is a beginning of an outline of a self-assessment process that hospitals can use to see roughly where they are with respect to leadership commitments, safety culture, and robust process improvement, and that will, I think, be a way to help set priorities for where to focus improvement efforts going forward. Now, let me spend the last couple of minutes of my remarks talking about The Joint Commission and what The Joint Commission's role might be in this endeavor, and let me say right off that I do not see that our primary role will be in setting new accreditation requirements related to High Reliability. As I'm sure you know, we already have a

requirement for leadership to establish a culture of safety, to eliminate intimidating behavior, to do effective performance improvement, so accreditation is really not the primary vehicle, I believe, for making more progress toward High Reliability. Instead, we have other tools. We have the Center for Transforming Health Care that has now started to disseminate tools from its work through the Target Solutions Tool,™ and if you haven't already accessed it, I urge you to do so. There's no added cost for accessing it. It is a set of tools that walks your organizations through very rigorous, but clearly understandable steps in tackling some of the most difficult safety and quality problems that we have. Right now, solutions to improving hand hygiene performance are available on the TST. In six and one half months, we've had 39,000 unique visitors to that website, and over 1600 projects started to improve hand hygiene in almost 1,000 accredited organizations. So, that's the good news. The expected bad news is that when you apply these tools, as this initial group of organizations has, the baseline on average performance for hand hygiene and the organizations that have gotten through that first phase is 47 percent, so there's lots of room to improve and we believe these tools are going to be very powerful, very effective. They're not shared with accreditation; they're separate from accreditation. It's entirely voluntary. But as we've seen with hospitals that have gotten to a real level of 90 to 95 percent compliance with hand hygiene protocols, infection rates, especially with MDROs, go down precipitously. There will be more of these tools protecting against the risk of wrong site surgery that will come into the TST later this year, and we will also be working on all of the other elements of safety culture and High Reliability, including an operational version and assistance in how do you actually operationalize and embed a safety culture in your organization. So, we have set as a vision for The Joint Commission an expression of High Reliability; our enterprise vision states what we would love health care to look like so that we can all feel comfortable that quality is embedded throughout all our organizations and we don't need any more separate quality departments. That vision statement says, "All people always experience the safest, highest quality, best value health care across all settings." We, at The

Joint Commission, inside our organization, are in the middle of a very aggressive adoption of safety culture and robust process improvement. We measure our progress toward each of those objectives and report those in strategic metrics to our Board and we are organizing aligning all of our programs, whether they are accreditation programs, performance measurement programs, education, consulting, publication work at JCR, or the Center for Transforming Health Care, around achieving this vision of High Reliability by helping the organizations we work with; hospitals and many other organizations, to identify their risks for safety and quality and implementing solutions to get them to High Reliability as rapidly as we can. Thank you for your attention.

Cathy Barry-Ipema: I'd like to address this question to Tom Priselac. From your perspective, as the president and CEO at Cedars, what role do you believe hospital leaders play in achieving High Reliability?

Tom Priselac: Well, I think hospital leaders are at all levels, and I would stress the importance at all levels, not just the CEO, are critical to doing this, including the Board of Directors down to the front-line supervisor. I think that part of the creation of a culture that Mark was eluding to is ultimately reflected in an organization in which people at all of those levels have the kind of commitment to High Reliability that the performance level we're seeking can be achieved.

Cathy Barry-Ipema: Thank you. We talked about leadership commitment, robust process improvement, and adopting a safety culture as the critical ingredients for a High Reliability organization. Chuck, why do you believe those are so important in achieving High Reliability?

Chuck Buck: Well, I think Mark has outlined the broad reasons quite well, but I guess I might add a little more based on my experience with the Quality Chasm, IOM report, and having lived

inside GE in the '90s when they were going through all this. To pick up on Tom's comment, which I totally agree with, about leadership, in a way, the CEOs and the Boards have to place a bet that doing the right thing—right the first time—will eventually pay off, and I think there are three levels of pay-off and they all make a little bit of a leap of faith on the part of Boards and CEOs. I think certainly ones that we would encourage them all to take on behalf of the patients. But, first of all, and I think we learned this in industry, is that if you actually operate defect free or nearly defect free processes, they almost always cost less, but you save a lot of money; that's, of course, the concept behind Lean. The second bet they have to place, I think, is that the payment systems will catch up with this and that where increased efficiency also affects revenue, like swapping a visit for an email, that the payment systems will eventually catch up and reward this journey. And, finally, one that's near and dear to my heart as a purchaser at GE for several years, they have to place the bet that if we really can show patients with specific diseases and conditions that we are centers of excellence we can move volume. And so those are pretty big bets for the business case for quality, but I think are also the ones that energize. On culture, and again here I just I think the journey to High Reliability starts with culture and ends with culture. It starts by telling employees they're empowered to do the right things, to fix things instead of asking their boss, sort of real basics. But I saw at GE an awful lot got accomplished just from that. Somewhere in the middle some of the things Mark talked about is just empowering staff to report errors and having a more error-free safety culture. And then at the end of High Reliability, when processes are asked, pick a number, 98 percent or something, that's when sort of the High Reliability notion of culture kicks in. That's when mindfulness and the notion that our patients are sometimes more complex and variable than our standard protocols will deal with, that we need to make some individual decisions and we need to be aware of that and react in a timely fashion. So, culture sort of comes back very strong at the end also. I mean, it's pretty obvious, I think, why RPI tools are important, but I will add one piece to this, I think, that comes out of the Chasm Report, and GE and Six Sigma learnings. I think what

we're doing mostly now is applying these tools to affect individual defects in clinical processes, so the kinds of lists of reporting that's required in improving those measures, but what we said in the Chasm Report and what we learned at GE, was that when you have processes operating, as Mark said, with hand washing at 47 percent, you really need to totally redesign a process. There's a step in Six Sigma where you sort of make this decision: Is the process worth fixing or do you just throw it out? And I think in health care, especially when we think about patient-centered processes that encompass their full range of condition and need as a patient, we need to be doing an awful lot of redesign with teams of people in the room, the patients in the room. I think we all know that if we sat down with diabetics and internists and nurse practitioners and endocrinologists and patients that we design different ways of taking care of patients.

Cathy Barry-Ipema: Mark, how do you actually build a safety culture within an organization, get that buy-in, and then how do you measure whether it's successful?

Mark Chassin: Well, there are a number of tools that are available for measuring the most important elements of the safety culture, and I think organizations need to sort of take their own temperature to figure out where they are on a spectrum of organizational culture types from very punitive, to more permissive, toward more empowering and identify what the principle current obstacles are. And some places, for example, it will be the presence of intimidating behavior. A *Sentinel Event Alert* we issued a couple years ago outlined what the elements of those kinds of behaviors are and included strategies for how to get rid of them. In others, it will be teaching employees what empowerment really means and what kinds of things to look for and what kinds of things to report. So, it changes, and I certainly agree with Chuck, that the cultural aspects of getting to High Reliability change as you emerge from a culture in which there's a lot of blaming and punishment, to one in which there's more empowerment and identifying the specific obstacles that you have today and focusing on those. I think this is the most important way to

make progress and, like I said, there are a whole lot of tools out there to measure these different aspects of safety culture.

Question: You referred to the toolkit in TST. Is there a website we can go on to get that?

Mark Chassin: Yes. Access to the TST is on your extranet connection to The Joint Commission, Joint Commission Connect. It's right at the bottom of that page. There's no added cost for getting to it and, if you don't individually have access to it, then the individual that controls your accreditation program inside your organization does.

Question: What does TST stand for?

Mark Chassin: It stands for Targeted Solutions Tool.

Question: I was looking for the article that you're referring to and then you said you could find it on Joint Commission website. Would that be under the extranet as well?

Cathy Barry-Ipema: You can go right to our website. In fact, if you open to the home page of The Joint Commission website, it's jointcommission.org, it's right on the home page.

Question: I really liked the comment you made about comparing the nuclear industry and the airline industry to the medical field, it's not just transportable just like that. And we have been in process for the last year and a half focusing on High Reliability; we are paying attention. So, everyday we meet at 8:15, go through safety huddles, and the process has been going well, I think, I'm complimenting what you are trying to promote today; we are learning a lot through this process.

Mark Chassin: Thank you for that comment. Dave Pryor, the chief medical officer of Ascension; Gary Yates, the chief medical officer at Sentara; and I have been engaged for sometime in talking about the lessons that the organizations that have started down this road and made progress have learned. We will continue to work at The Joint Commission with those organizations and assemble that learning and make it available to everyone else so that we can learn from the progress that's been made and share it and make it happen more widely.

Question: What is your advice, Dr. Chassin, when we have leadership and we have medical staff leadership as administrative leadership? What is the best way that we can join together and construct some uniform strategy and goals to achieve these three parameters that you are advising us?

Mark Chassin: That is a really good question. All of the elements of leadership need to get together and talk about what their vision for quality is going forward. How would they describe shared vision of what improved quality would look like at their own organization? We put a stake in the ground with the vision statement that I mentioned to you. It's on our website; you are free to appropriate it and use it for your own purposes, but without that shared view of the future, I think it's very difficult to then develop strategies that everybody's onboard with. I think the other element to making that happen is, in fact, the shared need that I believe we all have, to demonstrate much higher levels of safety and quality for all of our stakeholders. So, this shouldn't be number 8, 9, or 10 on the priority list, it should be number one.

Tom Priselac: Because I think the question is the essential one that needs to get answered in all of our organizations, given the nature of the structure of the typical hospital with the independence, so to speak, of the medical staff itself. And so, as Mark said, going through a

process of bringing a shared vision about the goal of this in terms of the culture as well as the execution is absolutely critical. So, just by way of example, and I'm sure others on the call have done their own version of these things, what we've done over the years is started with a medical center/medical staff compact that lays out at a vision and values level, kind of what the grand bargain is between the institution and the medical staff to achieve those shared goals. And then each year, as we go through our organizational goal setting, not only the organization but the medical staff itself establishes its own goals that are consistent with what the institution's trying to achieve. We spend a lot of time reconciling those things and making sure they're coordinated. And then the way these things ultimately play out, frankly, is in helping organizations with the behavioral change side of things up to and including on the medial staff side, having the medical staff ultimately adopt in their bylaws the kind of standards that are necessary to embed performance behavior by physicians along the lines of things like hand-washing and other things in a manner similar to other peer review matters. So, all of those kind of pieces, I think, come together.

Cathy Barry-Ipema: Cedars has been very involved in the Center for Transforming Health Care. Tom, how do you think the Center is helping to work with health care organizations to become High Reliability organizations?

Tom Priselac: The Center's work is helping to queue up people's awareness and interest in achieving the kind of High Reliability that we're talking about, but more importantly on a substantive level, the work that comes out of the Center has helped organizations and certainly helped us appreciate the value of the robust process improvement tools and has created a network of other organizations that are dealing with these same difficult issues. It's been great to have the dialogue and support and exchange of strategies that can be useful from one

organization to another, but then ultimately applying the RPI tools in a way that's unique to each institution's particular circumstances.

Cathy Barry-Ipema: Mark**,** how long do you think it will take to move health care into a High Reliability industry?

Mark Chassin: I think that this is clearly not something that happens in a year or two. Organizations that are further along on this, by virtue of having committed to the goal and struggled with safety culture and improved process, I think are some of the places where the recognition of just how far away they are from sustained levels of consistent excellence is probably sharpest. So, if I had to guess and we guessed in the article, 10 to 15 years. It is clearly a long battle, but one that we need to be able to learn from each other and share those learnings much more effectively than we have in the past. Let me just use the Center's example for explaining a little bit how The Joint Commission has started to achieve that goal. What we find when we use these tools of robust process improvement on these very resistant problems, like hand hygiene compliance, is that there are many, many causes of the failures of that process. If you look on the Center's website, you can see this story told very clearly. So, whether it is the lack of a safe culture that is prohibiting employees from pointing out to others that they're not washing their hands, whether it's the simple placement of alcohol hand rub dispensers in convenient places, or whether it's gaps in training so that health care workers in different parts of the organization don't really know when they're supposed to do hand hygiene compliance, each of those causes requires a very different strategy to get rid of. What we found repeatedly in the Center's work is that different hospitals have a different set of causes from their neighbors, so the old approach of taking a best practice to work somewhere to improve a process and then repeating it exactly the way it was done somewhere else often produces very mediocre results because the causes of the failures may be very different in your location. So,

what the Targeted Solutions Tool does is, without any jargon, without any need for specialized training, literally walks you through how to measure the problem, in this case with hand hygiene, in a very rigorous way that clearly shows you where your performance is, how to figure out what your causes are, and then select from a group of intervention solutions that have been developed in the Center's hospitals, as Tom described, and in pilot organizations where we test these out before putting them into the Targeted Solutions Tool, pick the solutions that are targeted at your causes of the problem. So, at the end of that exercise, you've got a customized set of interventions that are designed to work on the causes of the problem that you have and you've discovered in the course of this work. And all that is now hard-wired through our extranet connection to our 19,000 accredited customers. So, the Center's hospitals are not just working to solve problems in their own organizations, but through these tools, we're able to speed the learnings out to the rest of the delivery system. We hope and expect that our other work in High Reliability, whether it's around safety culture or the ways to get leadership commitment across all of the leadership groups, we will be able to disseminate it similarly effective ways.

Cathy Barry-Ipema: We have all different types of accredited organizations, very small organizations and large teaching institutions. Do you think for larger organizations it's more difficult because they are so large or for small hospitals that have very limited resources? I'm sure some are saying, we have very limited resources, there's no way we can do what needs to be done. How do you respond to that?

Mark Chassin: Well, I think the challenges are very different, and they're different in different parts of the country. They're different in different markets that are structured, very differently one from the other. So, the overarching aims and the overarching strategy, I think, is the same. The specific obstacles and the specific mechanisms will clearly differ. Large and complex organizations have multiple layers of these problems, but they also have more resources to deal

with them. Smaller organizations have fewer resources, but fewer lines of business and, in some ways, problems that are easier to tackle because you have fewer silos and fewer communication barriers, but as I said, fewer resources. One of the things that we are seeing with the application of these tools of robust process improvement—Lean, Six Sigma, and formal approaches to change management—those are the three components, is that you can adopt these tools, learn how to apply them, and generate a return on the investment that it takes in order to figure out how to adopt the tools and train your organization by focusing on business processes that are key to your financial viability, as well as the quality processes that often do take some additional resources in order to fix. So, with a strategic adoption of these tools, it is possible to generate a positive return on the overall investment while learning how to solve the safety and quality problems at the same time.

Question: We're a fairly small community not-for-profit organization and I'm just curious what and how the format of the tools are laid out and what the pricing actually might look like. Is that a fair question?

Mark Chassin: Absolutely fair. And you will like the answer. Access to the Targeted Solutions Tool has no added cost to it. You have it available to you now on your Joint Commission Connect extranet site. All of the Center's project learnings will be delivered to accredited organizations through the Targeted Solutions Tool so there's no added cost for access to that tool and to the learnings and the implementation guides and everything else that is in there. It’s a step-by-step process; you don't need to have any special training in Lean or Six Sigma or any other process improvement. There's no mechanism, there's no jargon in there. If you haven't used it, I would strongly urge you to get in there and see how it works. We will be implementing solutions to reducing the risk of wrong site surgery into the tool; that was the Center's second project. Those solutions will be entered, we're working on them now and probably will be

released over the summer, and in improving hand-off communication, which was the third Center project, is in pilot testing now, and those will be implemented later this year or possibly first quarter next year.

Caller: And so that does include the RPI methodologies?

Mark Chassin: There's information on RPI on the Center's website. Adopting those tools is much more complicated, and we can have a conversation about options to do that, if you like, but that's a more complicated process.

Question: I just wanted to ask a question regarding The Joint Commission's process now. I have seen the evolution of The Joint Commission in terms of the different methodology, but my recollections going back to many years is the focus was more into policy review, record review, and the environmental of care and then there was very little interaction with patients. And then the next stage was the whole introduction of the tracer methodology, which actually really emphasized interaction with patients, and reviewing from the point of entrance to the point of patient being discharged. And the third stage in the evolution also was this new way of doing business in regards to quality and patient safety that also requires more engagement, evidence-based practices, performance improvement, training of the staff and creating a culture of safety as well as patient satisfaction. So, as you move forward into new surveys, I would think that you will include all of the above, and I just want to get a response on that because I think there is much greater effort in regards to quality and patient safety at this time.

Mark Chassin: Well, thank you for that brief review of the history of The Joint Commission's approach to surveys and accreditation; that is evolving as well. And as a consequence of our establishing this new vision for the enterprise, we also revisited the mission of The Joint

Commission and its accreditation role and reworked our mission statement, which now says our mission is to improve safety and quality by evaluating health care organizations and inspiring them to excel. So, we still have accreditation requirements, but those accreditation requirements focus increasingly on having our surveyors look for the most important safety and quality risks, whether they're in life safety code areas or infection control or medication management, patient identification, hand-off communication, and helping organizations by identifying where the problems are, but then also providing examples with surveyor experience and now systematized in another tool that you all have access to, The Leading Practices Library, that allows organizations to go in and see what our surveyors regard as important new and different and effective ways that hospitals and other organizations have found to manage some of these risks. And you're right; we have increasingly focused on getting rid of requirements that are not evidence-based, on providing the evidence through a variety of tools and communication vehicles for why our standards are important to adhere to. So, the accreditation survey process will continue to evolve in the direction of helping organizations more effectively manage safety and quality problems, but don't look for requirements in accreditation to adopt RPI or to become highly reliable. For the foreseeable future, we are looking toward the other approaches and strategies that I mentioned to help motivate organizations to start or to continue on this journey.

Question: Do you have any advice on how the medical staff should address conflict with the governing board when its strategies are not aligned or there is discrepancy in the goals?

Mark Chassin: These individual situations of lack of alignment are often very difficult to resolve, and sometimes they require some outside mediation. So, if you haven't considered that, and things are really at an impasse, you might consider an outside mediator or a facilitator to get elements of all of the components of leadership together and hammer out what the shared vision for the future in safety and quality should look like.

Cathy Barry-Ipema: Is there evidence of any pockets of High Reliability in health care organizations today? For example, it's been suggested that anesthesia related care is at about Six Sigma levels in U.S. hospitals.

Mark Chassin: Well, there are some examples of processes that work at very high levels of safety; you mentioned anesthesia. Anesthesia does have a history in the last 25 years or so of really substantial improvement. Unfortunately, the mechanisms that anesthesia use, some of them, are not as readily applicable to other aspects of health care delivery. One of the key features of anesthesia's improvement was the mechanical improvements to the equipment that prevented, for example, nitrous oxide tanks from being connected to oxygen lines, just by making it impossible to make those connections. So, those kinds of improvements are important where we can take advantage of them. Another aspect to anesthesia's improvement, which is applicable elsewhere, is the adoption of evidence-based guidelines to make sure that all elements of monitoring patients in the modern way with expired CO2 and oximetry were uniformly used all the time, every time. And that getting to highly reliable practices that aren't simply on a piece of paper or checklist somewhere, but are really embedded into the way work is carried out is a key element that we need to work on in many other aspects of delivering high quality care.

Cathy Barry-Ipema: What role does technology play in the transformation to High Reliability?

Chuck Buck: Well, there are all sorts of examples where technology can be adapted to become more error free, but let me more specifically address IT and I think what we have found in quality improvement is that one of the hardest things to do is once you get a process to 95 percent, 98 percent, it's very hard to hold that gain over time, and one of the key ways you do

that is by using IT as sort of the spinal cord of the process so that IT is ever vigilant. Now, that doesn't mean that on top of that you don't need the High Reliability culture to take it to the next step. But I think IT is fundamental to baking in process improvements so that they stay in place as you move to the next process.

Mark Chassin: I would just add to emphasize the order in which Chuck mentioned the use of IT. Perfect the process first and then automate it. What we have seen through our sentinel event program and through our other problem identification programs at The Joint Commission, is where we've seen problems with the safe adoption of technology, whether it's information technology or others, is the imposition of a new technology in a process that's not working very well, and that's a prescription for increasing error and increasing harm. And I'll just quote the old chief information officer aphorism that "Computers don't make us less stupid; they make us stupid faster." So, if we haven't really perfected the process, automating it can be dangerous.

Chuck Buck: Let me just add that one of the advantages of automating, and assuming it's done correctly, is it really does surface the variability that does go on in processes around the organization and done correctly, it's a very helpful tool to get to having both the right standard and a house wide or institution wide or whatever unit of organization is most appropriate, getting those processes more uniform.

Cathy Barry-Ipema: How do you get health care organizations to move to High Reliability? How do we get people excited about it and say, "This is what we need to do, and we need to really be committed to this?"

Mark Chassin: I think the most important first step is the recognition that all public stakeholders, patients, families, insurers, employers, public elected officials, executive branch

officials, state, local, wherever they are, are demanding much higher levels of safety and quality from us. Tthe question that we need to address seriously is: How do we make much more progress? How do we get a lot better than we have in the past? And, for my money, as we've laid out in this article, the commitment to High Reliability and making progress on the critical elements; leadership, safety, commitment, culture, and robust process improvement, offers the best hope for getting us there.

Tom Priselac: I guess what I would add is leadership matters, and as I said earlier that a culture of safety needs to engage all the leaders throughout an organization, but none of that happens without the CEO exhibiting the kind of leadership that's necessary. And it won't happen in an organization without the CEO being seen as a champion of this effort, which would include making sure that the necessary resources are allocated and, by their own behavior and conduct, and what messages they send to the organization about what's important, is a critical element of getting to High Reliability.

Chuck Buck: Let me just add from a public policy point of view, which may or may not be particularly persuasive to an organization fighting through the trenches, but its quality, industrial strength quality, High Reliability quality, that is potentially our unique answer to: How do we reduce cost and improve quality at the same time? And my fear is that if we don't go down this path aggressively, we will, from a public policy point of view, turn to other much less satisfying approaches to controlling cost.

Cathy Barry-Ipema: Well, thank you very much and I'd like to extend a special thank you to all of our panelists and thank you to everyone who took the time to participate in today's Town Hall. We hope it was of value to you. You will all receive an e-mail with a toll-free number to hear a

playback of today's call and a written transcript will also be available on our website within the next few weeks.

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