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Improving the quality and reliability of health care
Transforming care with easy access
to clinical data and analytics

What if care teams had the benefit of seeing what others were doing to create better outcomes for patients? What if those same best practices yielded a more cost-efficient result? And wouldn't you want those same care teams to have access to the data they need, when they need it to help facilitate better quality and reliability of care? The reality is that most care teams don't have access to the information they need to manage care and make sound clinical decisions.

The health care landscape is at a crossroads. Clinicians are faced with increasing pressure to improve treatment outcomes while simultaneously reducing costs. Care teams need insights to help them achieve one essential goal—value—rather than a legacy approach—volume. Health care executives want to move from "What are the commonalities with our problems?" to "What are the commonalities with our successes?" Practitioners want to use data to help reenergize their passion for caring for people. And patients want the positive outcomes that all of it will afford them. It takes innovation.

Organizations who can successfully create a data-driven culture that supports autonomous decision making by dedicated teams on a collective mission can achieve best practices. What if you could combine the adaptability, agility, and cohesion of a small team with the power and resources of a giant organization? And what if that revealed the reasons for treatment variation, improved patient outcomes, and eventually lowered costs?

The question isn't so much if, but when.

A new—and more complex—focus

Important trends are shaping today's health care delivery, bringing with them challenges and opportunities. Pressures to reduce costs and improve quality and outcomes are increasingly top of mind for key executive stakeholders, but improving quality of care is not always contradictory to reducing costs. Quality and reduction in unwarranted variation of care is a necessary focus that's getting more complicated. The reasons are numerous:

· **Baby Boomers are aging.** Certain patient populations are growing as Baby Boomers age, straining the system and giving care teams less time to think strategically. One recent study indicated that **20 percent** of patients are driving **80 percent** of care costs, for chronic illnesses and episodic acute care support. More significantly, 2.7 percent of members are driving 41 percent of costs, largely due to traumatic and terminal disease.[1]

· **Data is in disparate places,** making it harder to see trends. It's in the electronic medical record, enterprise resource planning systems, and financial records. Ambulatory data is difficult to access. Reports must be pulled manually, which takes time and sets up a roadblock for care teams and administrative executives to make quick decisions.

· **Too much data for humans to process solo.** More data is available that could be considered to improve value than people can manually examine and understand on their own.

· **Data is not episodic, but captured across a patient's life.** Value-based care measurement has its own unique challenges, one of them being the desire to keep people healthier so they don't end up back in the hospital. Today's value-based data is not stagnant, episodic, or captured in a single moment. It is fluid and continuous. Technology and innovative apps now track data on patients from the hospital to the home. Care becomes very patient focused as data is aggregated and distributed across the system—of which the hospital is just one part. However for it to create value, the data is going to have to be readily available to care teams in easy-to-understand formats and there's going to be a lot more of it to manage.

1. Es Nash, "The 80/20 Rule: Is it still true? And what can it tell us about Population Health in 2018 and beyond?" https://www2.deloitte.com/us/en/pages/life-sciences-and-health care/articles/is-80-20-rule-of-health-care-still-true-population-value-based.html.

How one hospital system achieved constant continuous improvement

If the quality and reliability of health care is to improve and at a more cost-effective rate, a new approach would be required. A recent engagement for a hospital network set out to establish a robust program that would be patient-focused and help keep score on cost improvements. The end game? Sustainable clinical effectiveness using a multidisciplinary approach. It would require senior executive sponsorship, cross-functional team facilitators, successful, scalable process designs, and clinically relevant data to inform care. One multidisciplinary clinical team focused on surgery. This aspect of the program used detailed data to understand unnecessary variation that was driving cost—with no improvement in outcomes. In this

case, the cost for surgeons performing the same procedure was highly variable, yet the surgeons had little to no understanding of where this variation was and why they might be comparatively a high-cost provider. Deloitte Consulting's work with this organization engaged front-line clinical teams to improve outcomes and reduce cost across multiple patient-focused teams.

The insight to achieve these results came from Deloitte's care redesign process, which brings together stakeholders from across the organization to develop a set of protocols, tools, and enabling technologies that help care teams deliver leading-class, efficient care. Deloitte helped the organization establish a business case, design data, and create the performance

measurement and the tracking necessary for success. The team used Care Intellect™, a cloud-based analytics solution that helps health care organizations deliver higher-value care by managing variations across patient encounters.

Seeing the forest via the trees
Turning data to actionable information

Today, health care systems are dealing with an overwhelming amount of data, but the old questions remain: Where is it? Who has access to it? Is it being integrated? Is it easily accessible or walled off? Are care teams able to use it wisely so they can see the bigger picture? Traditional business intelligence is often slow and ineffective at providing answers that can be put into practice; "data" is often viewed in isolation. User-driven business intelligence helps allow information on areas of weakness and areas of strength to be accessed on-demand, searched for insights, explored freely, shared quickly, and visualized—all to identify patterns of variation in treatment and ways to address it.

The need today is to move from "what are the commonalities across our problem areas?" to "what are the commonalities with our successes?" How do organizations get to this point—pulling together all the data in a way that helps identify problem areas and improve patient care? Ultimately, it may be through transparent and easy-to-access analytics that care teams trust and are engaged with, so they can get the real-time answers they need. No submitting a detailed request and having to wait two weeks for a report. No unnecessary justification for their request. No lack of visualization of data that would make it easier to spot patterns. For their part, administrators can vigorously support best practices across their hospital system because they can finally see the information they need to help curb variations and reduce costs, resulting in better patient outcomes.

Achieving aim
What do variations in care really look like?

Mission accomplished: A hospital system's processes support reliability in clinical decision making

What do variations in care really look like? A five-hospital system in the Midwest decided to find out.

This hospital system wanted to achieve its vision of patient-centered care by enhancing clinical effectiveness to address variations in care in its system, with the specific goals of: improving quality, maximizing value for patients, achieving top decile outcomes using leading practices, and designing and implementing reproducible and reliable clinical practices. They started where any major initiative should start: at the top. An Executive Steering Committee gave the initiative executive sponsorship, critical to achieving the goals of a broad, system-wide discovery and implementation process. It also included system-wide clinician engagement so that each hospital had a "voice" in process changes—this included both private physicians admitting patients as well as those employed by the system. In addition, each hospital or clinical area was granted clear decision rights.

Clinical decisions and a new operating model

Decision rights are critical so that those involved in patient care are empowered to modify processes and care practices. They have the same goals as the overall organization—a focus on quality and outcomes that relies on systematic and repeatable processes. A core element—clinical analytics to investigate and improve care variation—revolved around one central premise. Trust in the data from both clinical leadership and front-line staff is obviously important. But using the data is what's important to care teams—generating reports, conducting analyses, and producing visualizations in real time is what makes the difference in outcomes.

Disciplined design—the data and leading practices

For the spine surgery process, the core team included physician and administrator co-leads and a multidisciplinary team with representation from across the system: supply chain, staff education, nursing, IT, lab, pharmacy, rehab, patient education, and others. The project redesign process of 16 weeks included the three major phases: current state assessment, future state goals, and implementation planning. During the current state assessment, more than 25 clinical and administrative leaders across the five hospitals and three regions synthesized their findings across the patient journey, identified gaps to leading practices, and developed potential areas to focus redesign efforts. The care teams identified numerous areas of variation in procedures across the health system—from pre-admission testing to peri-op, surgical unit care, discharge, and post-acute care.

Bringing insight to light

Some of the findings were quite surprising. For example, the hospital system found that a prehab program for patients wasn't mandatory across its hospitals, leading to very different patient expectations. There was no standardized evidence-based anesthesia protocol, insufficient and late discharge planning, and numerous issues with pain management, both pre-op and post-op. For that one issue of pain management, the care team's recommendations resulted in a detailed flowchart and protocol for opioid management, from the day the patient comes to the surgeon's clinic through discharge and home care.

Bottom-line impact

Physicians developed new clinical guidelines for biologics use in spine fusion, estimated to drive up to $1.5 million in savings. The potential savings by the hospital clearly illustrate the variation in care across the hospitals—while one hospital could potentially save $67,000 on one category of guideline change, another was estimated to save $251,000. In total, the opportunity for cost savings through standardized care protocols was targeted at $2.1 million, but as designed and implemented was $2.2 million— all with the patient as the focal point of design. The system achieved an 8–12 percent reduction in length of stay, equating to a reduction of 825 patient days. Patient outcome measures included increased patient satisfaction, reduced complications, decreased opioid use, and reduced infection rates. Process redesign for subsequent years should result in a savings of $66.2 million to $73.6 million in 22 other clinical areas including septicemia, neonatology, heart failure, cardiac care, and infectious diseases.

Informing the future of patient care
Critical factors for success

Imagine if you could have a "picture" like this:
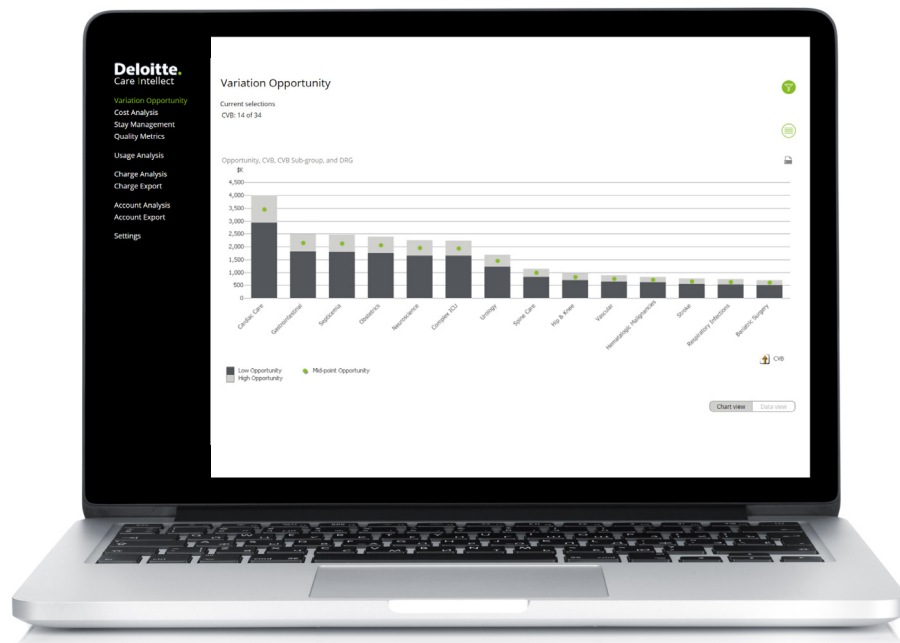
Sophisticated analytics that provide insight into variation causes can provide you with the information you need to begin the journey to better patient care and lower costs. This type of insight—in the hands of clinicians—can implement real change. But there are important things to keep in mind before you start.

Recognize and overcome the barriers. They're aplenty.
The most common ones are: failure to size and invest in infrastructure, undisciplined implementation, lack of buy-in for the case for change, unclear decision rights, historical lack of cost data transparency, a narrow "either-or" focus on cost versus quality, resistance to acceptance, failure to engage physicians system-wide, limited tracking and measurement.

Be thoughtful about design and rollout. People need to wholly align with such an advanced analytics program to gain the maximum benefits—it needs to become an embedded part of clinical routines.

Hard-wire process changes into EMR. Once a new process has been identified, make it easy for staff to understand and thus carry out the new directive. Hard-wiring enhanced processes into EMR is a smart step toward sustainability and reliability.

Role changes. If roles need to change, make sure they are well communicated to both the individual and to the team. Teams that are in alignment and understand their roles and responsibilities are better able to achieve the metrics they are trying to hit.

Create a cycle for continuous improvement. The value of systems founded on the exchange of real-time data lies in the ability to track processes, outcomes, and financial measures to build a sustainable cycle of continuous improvement. One that, if built strategically, can be both repeatable and scalable—made to inform the future of the patient care. This isn't a one-and-done solution, but a long-term strategic priority of the organization. The "people" component to this just may be more important than the tools in driving innovative value-based care solutions. Without the engagement of clinicians, organizations may suffer the same fate as extinct software systems.

You're almost there
Developing an insight-driven organization

The net result is that bringing analytic tools and data to clinicians can enable informed decision making, promotes buy-in, and engages them to champion change.

What does the "right" structure for an insight-driven health care organization look like?

To start, an organization should reconsider its really big picture: mission, resources, internal structure, technological architecture, data application, and culture. For organizations holding on to traditional hierarchical models built around siloed departments and workflows, this can create a conundrum that often demands a comprehensive overhaul. The desired structure should support autonomous decision making under a collective mission. Most importantly, the governance structure should remove barriers to collaborative change.

5 steps to an insight-driven organization

1

Commit leadership

Gain senior leadership alignment on the importance of analytics in driving differentiated business performance in the future

2

Set analytics priorities

Establish the top strategic business priorities for analytics and identify high-value analytics use cases to tackle in the near-term to build momentum and excitement around analytics

3

Align the strategy

Align the current data architecture strategy with future business needs

4

Address data quality

Establish an enterprise data quality and governance framework to manage the data assets across your organization

5

Organize thoughtfully

Define an operating and organizational model that will best enable analytics within your organization

Invigorating teams with an insight-driven culture

Consider the model proposed by Chris Fussell, author of the book *Team of Teams: New Rules of Engagement for a Complex World*. Fussell's "team of teams" is a network of small, cross-discipline teams that enables agility without sacrificing the power and scale of a large enterprise. These types of organizational models support the capabilities and goals of individual teams, as well as the overall enterprise. Bureaucratic hierarchies with "silos," which keep teams isolated from one another, are insufficient solutions to modern issues: "If the problem is interconnected, your organization must be, as well."[1]

An insight-driven culture with a "team of teams" approach can empower clinical teams to focus on initiatives that improve patient care and reduce unnecessary variation without hampering them with slow, bureaucratic processes. In today's beleaguered health care system, burdened with epidemic levels of stress, depression, and burnout, this is a welcome boost to tired clinical teams looking to be energized with the passion of what drew them to health care originally—caring for patients.

1. Dan Schawbel, "Chris Fussell: How To Make Your Organization Flatter and More Interconnected."
   https://www.forbes.com/sites/danschawbel/2017/06/13/chris-fussell-how-to-make-your-organization-flatter-and-more-interconnected/ June 13, 2017.

Design for an environment of continuous discovery

The successful organization of the future will foster a clinically forward mind-set that enables the democratization of data and insight as much as possible. Knocking down the hierarchical barriers that traditionally surround data empowers insight-literate clinical teams to utilize on-demand data to enable more effective, autonomous decision making. Teams should test hypotheses, judge experimental design, and interpret metrics to share insights, thereby opening the door to an environment of continuous discovery that is focused on improved patient care.
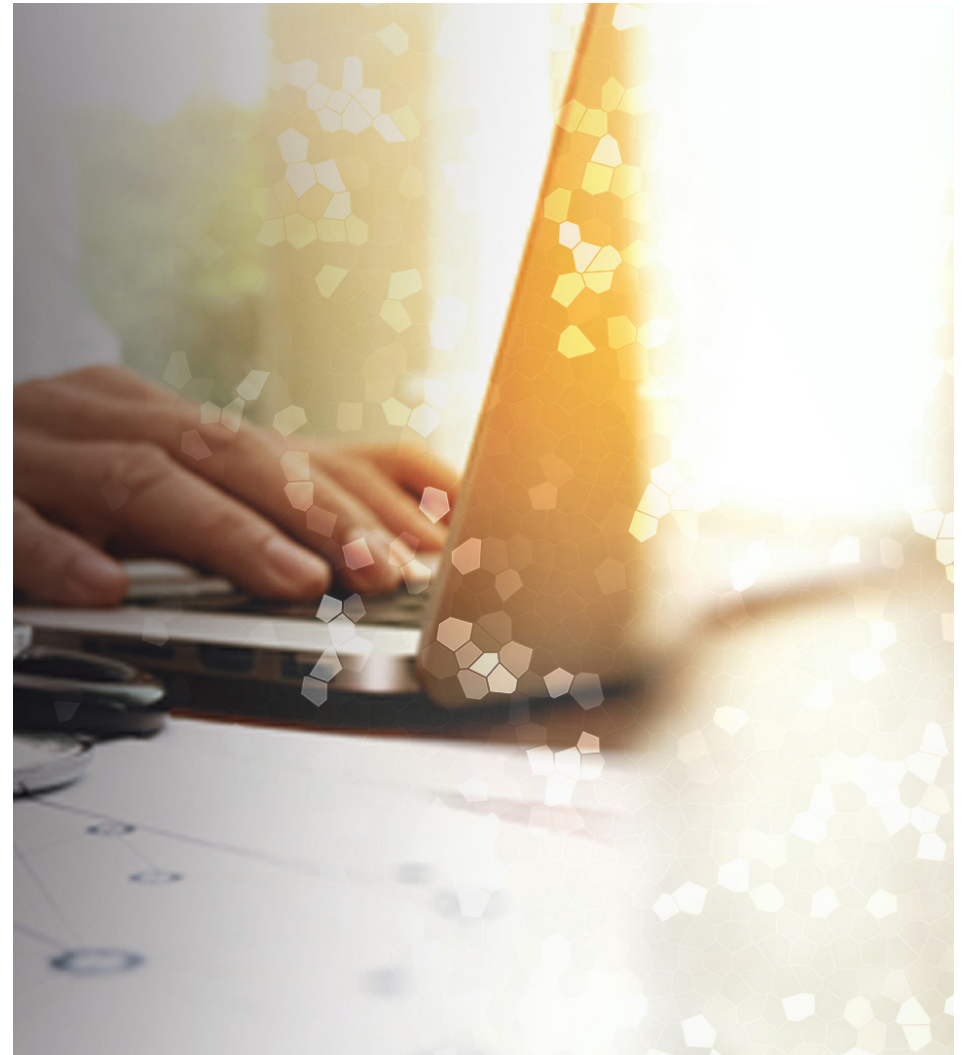
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