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SOFTWARE

3 ways healthcare providers are transforming data from information to insight

You work hard to cure patients every day. Is your data doing everything it can to help too?

Big city hospitals and rural clinics share more than the goal to deliver outstanding patient care. Both strive to accomplish this against the backdrop of unrelenting pressure for cost containment, resource maximization, regulatory compliance and safety considerations.

One of the most powerful levers to address these needs is to demand more actionable insights from your data. Hospitals and clinics are teeming with data, whether it's operations and financial data or quality metrics and patient information. If your data is not helping you solve your organization's toughest challenges every day, then it is a drastically unde. rutilized asset. Would you let a brand new hospital wing stand empty? Of course not. Don't let your data off the hook either.

Using data to uncover solutions won't come from asking for "more of the same." You need to put your data to work in a fundamentally more powerful way.

Healthcare providers are successfully tackling some of their biggest challenges – from emergency room efficiency and supply chain infrastructure to insurance payments and patient safety – by using a next-generation business intelligence approach. Three best practices stand out about how these healthcare providers are getting more from their information assets:

1. **Break the data access logjam by empowering departments to explore their own data**

2. **Uncover answers with data from multiple systems to reveal trends and outliers**

3. **Share insights with executives, doctors and others to drive collaboration**

Elusive in the past, these practices are being put to use every day by healthcare providers of all shapes and sizes. No longer satisfied with limited impact from static reports generated by an overextended IT department, hospitals and clinics are transforming their expectations of data to drive actionable insights.

" The old approach to business intelligence confirms what we know. Now departments throughout the hospital can ask the question, 'What am I trying to accomplish?' and explore what they don't know."

-Ted Corbett, Director of Knowledge Management, Seattle Children's Hospital

1 Break the data access logjam by empowering departments to explore their own data

For years hospitals and clinics have relied on IT departments to provide answers to data questions, creating a never-ending cycle of long wait times and inflexible results. IT has faced the inverse challenge. They spend dozens of hours churning out reports and responding to requests that often fall short of what the requester wanted to know.

Healthcare providers are turning the tables on this status quo, empowering individuals throughout their organizations to explore data to answer their own questions. Not only is this yielding faster, more insightful actions, it's letting IT get back to the business of building and maintaining a reliable infrastructure backbone.

Clinics and hospitals have accomplished this by providing easy, intuitive tools to individual users. By creating a self-service model, IT and business intelligence teams are shifting away from reacting to business intelligence requests and toward training individuals and departments to ask and answer their own questions. Further, this access to data is established with full consideration of security requirements throughout the organization.

The result is less time from the IT department to generate reports and respond to inquiries and more data-driven decision making for the hospital or clinic.
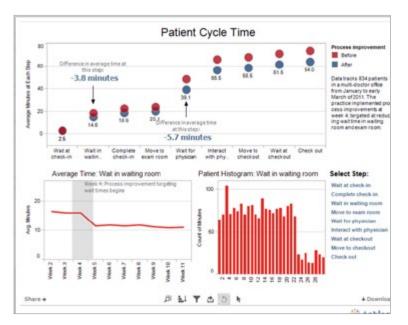

Figure 1:
Tracking the time it takes to move patients through a multi-doctor office provided insight about areas for improvement. By taking action in waiting room and exam room management, the time patients had to wait was reduced by nearly ten minutes.

2 Uncover answers with data from multiple systems to reveal trends and outliers

The need to do more with less carries extra pressure with healthcare providers because of the priority placed on delivering timely, effective treatments. How to reduce a patient's time in surgery to accommodate more procedures in a day? Create a supply stocking system to optimize inventory? Determine where to build a new surgical center to maximize revenue? These are complex questions healthcare providers need to answer.

Now empowered to investigate information with intuitive tools, departments throughout healthcare providers are more aggressively exploring data that's relevant to them. This is true whether the data is in a database, warehouse, spreadsheet or multiple places at once. This means more metrics, more underlying data and more relationships among this information than ever before can be considered to optimize their domains. Departments now proactively investigate patterns in data and work to understand why these exist. They are revealing major "ah-ha" insights that lead to recouping lost payments, changing vendor relationships, or even saving lives.

The impact of thinking big about what data can reveal is significant. Hospitals have uncovered underlying, recurring issues with claims processing that have let them proactively identify claims codes that need a different level of attention to be processed on time. Clinics have uncovered service providers who aren't delivering effective services and taken corrective action. Physicians running studies are identifying patients who not only haven't been adhering to protocols, but glean insight as to the possible reasons behind this to take action.
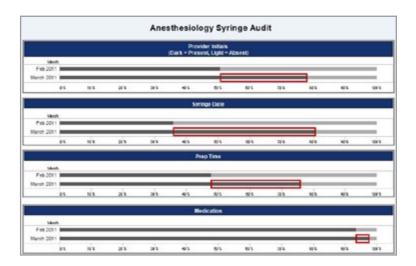

Figure 2:
After a syringe label audit in February 2011, anesthesiologists in a leading medical center identified areas for syringe preparation improvement such as better labeling with provider initials, syringe date and time of syringe preparation. The result was more accurate labeling in March 2011, increasing patient safety.

" Now that our Quality team can explore their own data effectively, they don't dread the process of developing monthly reports but instead are using their data to ask, 'How can we improve quality?'

Not only are they doing more effective work, the team has saved the equivalent of 3 FTEs. "

-Charles Boicey, Informatics Solution Architect, University of California Irvine Medical Center

3 Share insights with executives, doctors and others to drive collaboration

It sounds so simple to "share what you know." But in practice it's one of the hardest problems facing healthcare organizations. The tendency is to get caught up in a world of emails, pdfs and slides, all point-in-time attempts to keep one another up to date. It doesn't have to be that hard. Sharing information and insights with a broad range of stakeholders – from Chief Medical Officers to large departments – can be accomplished securely and effectively right on the web.

Communicating data with interactive visualizations, reports and dashboards in an easy, direct manner has been the ultimate goal for many healthcare providers seeking to implement change in their organization. Whether the target audience is the executive suite, ambulatory care unit or patient community, healthcare providers are now seamlessly sharing insights with a wide range of constituents with secure reports that can be accessed in any web browser.

Medical centers of all sizes are increasingly able to accomplish this mission to share – and act – on what their data reveals. Interactive visualizations are being used "live" in meetings and discussions, allowing participants to narrow in on options and insights in real-time. Care givers monitor and query real-time dashboards to make immediate decisions about ways to improve patient experience. Growing populations of constituents – be they an internal department, the senior leadership team, or a large group of interested citizens – are now able to get appropriate information easily and where they want to get it.
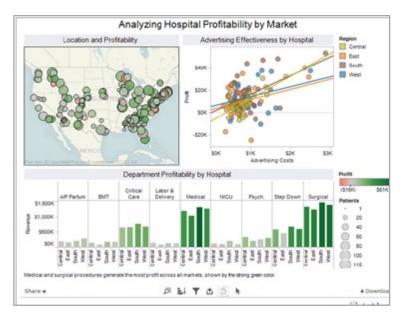

Figure 3:
After a syringe label audit in February 2011, anesthesiologists in a leading medical center identified areas for syringe preparation improvement such as better labeling with provider initials, syringe date and time of syringe preparation. The result was more accurate labeling in March 2011, increasing patient safety.

Transform information to insight for your hospital or clinic

Clinics and hospitals of all sizes are getting more from their data to solve their biggest challenges by utilizing next generation business intelligence. Empowering individuals who know the data best, providing robust capabilities to ask your toughest questions and sharing this insight across teams is fundamentally shifting the leverage providers are getting from information.

Tableau gets your data doing more for your healthcare organization

Tableau Software's healthcare clients range from rural clinics such as the Louisiana State University Health Sciences Center to major metropolitan hospitals such as the University of Maryland Medical Center. With its powerful, next-generation business intelligence solution, Tableau has transformed these organizations' ability to create actionable insights resulting in significant cost reductions, reclaimed revenue and improved resource utilization.

About Tableau

Tableau Software helps people see and understand data. Ranked by Gartner in 2011 as the world's fastest growing business intelligence company, Tableau helps anyone quickly and easily analyze, visualize and share information. More than 6,500 customers across most industries get rapid results with Tableau in the office and on-the-go. Tens of thousands of people use Tableau to share data in their blogs and websites. See how Tableau can help you by downloading the free trial at www. tableausoftware.com/trial.