

Three Cornerstones for Healthcare Analytics Success

Avoiding common pitfalls of healthcare BI evaluation

For the past several years, the healthcare industry has endured the growing pains of moving from paper health records to electronic health records (EHR). This move is not optional: Recent legislation such as the HITECH Act mandates that healthcare provider organizations adopt electronic systems quickly.

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While the majority of health systems are well on their way with the transition, challenges such as the inability to share data across systems and departments, as well as to make sense

of unstructured data, continue to cause problems. Still, the new era of healthcare moves ahead with new plot twists. For example, the Affordable Care Act now penalizes hospital readmissions and incentivizes provider organizations to keep their patients healthy over the long term.

The only way provider organizations will ever be able to meet these expectations is to fully master the landslide of electronic healthcare data, both structured and unstructured, housed across all departments in the healthcare delivery system. And in order to discover meaningful (and competitive) links and associations among clinical and health outcomes, and financial and operational data, provider organizations must be able to analyze health data from multiple encounters and multiple patients over time. But how?

Hint: You Need More Than a Slick Dashboard

The logical answer is to employ a software solution that can analyze data across the health system and generate detailed reports. In theory, these analytics would allow a provider organization to reduce operational costs across the board, optimize IT systems and infrastructure and help clinicians make the best decisions for their patients—all while being user-friendly and without affecting workflow.

In healthcare systems, many analytics programs are just add-ons or solutions originally developed for entirely different industries and tweaked for use in healthcare. The problem is, healthcare environments are extremely complex and unique, as are the business rules that must be applied to the data in order to gain actionable insights.

While specific operational, clinical or financial solutions are extremely adept at analyzing and reporting data from within their specific domains, they can't readily bring data elements together from across several systems (including the EHR) without a substantial amount of synthesizing and transformation. This is where many health systems go wrong: They may evaluate a system that has an impressive dashboard, but it's likely that dashboard can bring in data from only a single source.

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These quickly built afterthoughts may have a nice veneer, but they can't fully integrate with or analyze data in, every department in the provider organization, and they can't provide the deep dives required for regulatory compliance and operational optimization. Real insight comes from being able to see data across systems in order to detect trends and identify root causes. To be successful, there are three critical areas that must be addressed:

01

Define clear business rules: An analytics solution is only as good as the business rules you set. For example, the definition of readmission can vary across the organization. If your business analytics solution doesn't have clear business rules, you could get conflicting or inaccurate data.

This is a significant problem for compliance with Meaningful Use, for which there are a number of complex elements that must be measured. If the business rules in the analytics software aren't consistent, users may get data that they think is incorrect, or data that is correct but not what they expected. Without a comprehensive tool, they won't be able to show traceability or investigate and display the facts behind the summary data. A comprehensive business analytics solution will have a library of prepackaged business rules and definitions that can be applied in the provider setting, or customized based on your unique needs. The tool should provide an overview that allows you to drill down into the data and generate reports that are trustworthy. After all, when it comes to compliance, "it was green on my dashboard" is not an acceptable response.

02

Be sure you can integrate data sources. Provider organizations have many discrete data sources that must be managed and assimilated for successful business analytics. One of the biggest challenges they face is integrating financial, clinical and operational data in order to discover meaningful correlations. EHR systems still may require large data warehouses, lack visualization and limit integration.

EHR simply is not sufficient for specific reporting for point solutions like payroll, time and attendance and cost accounting, as it can provide only a limited view of information specific to different domains. Additionally, in an attempt to solve the problem, provider organizations may have to invest in expensive data warehousing and data lifecycle management tools in order to attempt to integrate and view data. This approach comes with a lengthy implementation process and adds even more expense to an already expensive undertaking. A comprehensive solution should have prebuilt connectors to sources so data across the entire organization can be aggregated and analyzed for comprehensive clinical, operational and financial reporting.

03

Don't be dazzled by displays. Clinicians have strong opinions about the devices and apps they use to capture patient data—and rightly so. Cumbersome apps slow down workflow and take valuable time away from patient care. For this reason, clinicians are often involved in the analytics software selection process. However, this deep involvement frequently causes the selection to be skewed toward the solution that has the best Web-enabled display or the biggest, brightest or fastest-loading graphics.

Once users and administrators start engaging with those graphics, however, they quickly find there are questions they can't answer. For example, they may be able to get their top trending questions answered, but they can't get to the "why" behind the graphic. A comprehensive analytics solution should be more than a flashy display. Clinician and end user-ready displays are important, but the data behind them should be collected from disparate sources, effectively transformed and have clear business rules applied.

Solving the healthcare analytics puzzle is complex but can be done successfully by employing a combination of the right



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technology and expertise. While user-driven evaluations do allow users to decide what BI solution they prefer based on aesthetics, they fall short of helping provider organizations determine if the solution can

handle the business rules and can integrate their diverse data sources. Provider organizations that are evaluating BI tools shouldn't be distracted from the end goal by slick displays or fast graphics. Graphics and reports must be built on clear, consistent business rules, effective data transformation and data from sources across the entire organization.

The Diver Solution: An All-Inclusive, End-to-End Business Intelligence Platform

If you're evaluating BI software for your provider organization, it's important to partner with a vendor that brings all three of these critical elements together.

The Diver Solution™ from Dimensional Insight is an end-to-end business intelligence platform, providing all of the components needed to implement and deploy actionable, role-based BI across your organization. It provides integrated views of business-critical data, giving you the information you need to make the choices that will grow your business, along with clinician and end user-ready displays, prepackaged business rules and prebuilt connectors to healthcare data sources. These cornerstones give you timely access to accurate information, connect your financial, operational and clinical data for a comprehensive view of performance, and help the organization contain costs and identify opportunities.

If you're ready to learn more, contact us 920-436-8299 or send an email to info@dimins.com.

About Dimensional Insight

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Dimensional Insight's Diver Solution consistently ranks as a top-performing business intelligence platform by customers and industry analysts in its core market segments, including healthcare, manufacturing and distribution industries.

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