Abstract

In this paper we present our point of view on how intuitive dashboards based on the right key performance indicators (KPIs) can accelerate the speed and quality of decision-making for healthcare providers.

Today, the provider value chain generates huge volumes of disparate and disjointed data. The BI and analytics systems should gather and aggregate data against the right KPIs and present a meaningful dashboard-based view. A good BI dashboard helps providers analyze their retrospective trends, see the indications about performance in real time, and make reasonable predictions for the future. It is crucial to support these capabilities with advanced slice and dice options to identify and eliminate the root causes for poor performance. This will help the leadership in getting a holistic snapshot of the provider’s performance and take proactive decisions.

Most providers today have multiple ERPs and applications with analytics capabilities. The need of the hour is to have one common source of truth to connect performance across provider domains – clinical, operations, and financial, for intelligent inputs to bring transformational benefits.
The dynamic healthcare environment – evolving regulatory environment, shifting reimbursement models, rising consumerism, declining margins – is pushing providers to go digital and embrace technology like never before. This rapid proliferation of technology in providers is leading to a highly fragmented applications landscape, multiple clinical systems (HIS, EMR, Specialty, Lab and diagnostics, etc.), and portable devices. They generate huge volumes of disparate and siloed data across the entire provider value chain over multiple channels. The BI and analytics systems should gather and aggregate data against the right KPIs and present a meaningful dashboard-based view.

With greater accountability and governance pressures, the providers today are increasingly tracking and reporting key performance indicators (KPIs) to get a measure of how they are progressing toward short- and long-term goals. The key to building a strong foundation for the analytics program is to identify the right KPIs. Pick outcome-based KPIs across the provider value chain; define baseline performance values; and progressively link them to the business value.

These KPIs can be identified by a thorough study of the ‘As-is’ model and current perceived / experienced pain points across business processes. Techniques like motion analysis, work break-down analysis, and swim lanes diagrams of As-Is can be deployed to identify the stakeholders involved and potential bottlenecks. Each KPI identified should be subjected to the SMART test, i.e.:

- **Specific**: Clearly indicate the item getting evaluated
- **Measurable**: Data capture points need to be available
- **Achievable**: Should not require change in regular workflow
- **Result-oriented**: Change in the KPI value should have significant impact on output
- **Time-based**: How long before data on specific results is available?

Here is an indicative chart showing provider KPIs with value linkages to explain the holistic approach for KPI identification:
Once we have the foundational KPIs, the next step is to chalk out the plan to measure, monitor, and improve. Real-time dashboards, alerts, and dynamic reports built on a consolidated source of provider data are the best mechanism to ensure that key stakeholders in providers are focused on the same targets and looking at the latest numbers.

**Measure, monitor, improve**

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**Proactively identify the existence of a problem**

- Real-time alerts over emails, SMS
- Dashboards to provide intuitive performance levels

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**Understand the magnitude and historical context**

- Historical trend analysis
- Predictive modeling to forecast problem magnitude

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**Determine the root cause of the problem**

- Drill down up to the root cause in reporting
- Work flow manager to highlight processes taking longer than benchmarks

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**Fix the problem**

- Fix the problem by eliminating identified bottlenecks in work flows
- By increasing the alert frequency on missed activities

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Analytical / BI tools with these capabilities effectively cause a shift to proactive behavior among the providers. It empowers employees to actively make decisions to optimize resources across objectives and look for creative ways to achieve goals. Further, clear communication and feedback processes are established around objectives and measures.
Most providers today have multiple ERPs and application vendors offering point solutions for analytics. These definitely help in the short term, but in the long term, what providers need is to move from a point-of-need analytics solution to a unified analytics solution that offers a single source of truth across the provider value chain. The right analytics tool caters to the provider’s current analytical maturity and provides a road map to progressively move to next levels. Here is a snapshot of the analytics / BI maturity of healthcare providers and the desired product features.

Effective analytics / BI focuses on quickly achieving results and changing behavior, rather than being a complicated planning and data management exercise. With the selection of meaningful metrics and the right technology aligned to a provider’s maturity level, investment in an analytics tool can start driving results in a matter of weeks.

Prior to embarking on the analytics journey, providers must consider the following success factors:

- Robust road map – Short-term and long-term performance objectives
- Identify KPIs that will measure performance vis-à-vis objectives
- Advanced road map.
- Pick high-impact KPIs to generate maximum ROI
- Take a holistic approach that integrates people, processes, and systems, to meet common goals
- Continuously measure, monitor, and improve

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