MedeAnalytics®

MEASURE. MANAGE. LEAD.

Building a Powerful Hospital Scorecard...by Keeping It Simple!

» By John Hansel, Vice President, Provider Sales
Nate Seaman, Director, Product Management

White Paper

Executive Summary

This white paper provides real-world guidance on creating a hospital performance scorecard. Many organizations over-complicate this effort and spend years trying to perfect a robust scorecard system prior to actual implementation. This is especially true in hospital organizations, given the multiple audiences and disparate reporting systems required to support the scorecard metrics. There are technologies and best practices that enable a simpler, faster way to design and roll out scorecards across the hospital. Together with an advisory panel of senior healthcare executives representing various hospital disciplines (operations, clinical quality, information technology and finance), we defined guidelines for building an effective hospital scorecard in 90 days. Rather than concentrating on planning and design, we created a framework for a performance management program that achieves results quickly. This is possible with leadership endorsement, coupled with the use of proper technology, flexible reporting tools and the right metrics as suggested by our advisory panel.

What is Hospital Performance Management?

When you boil it down, hospital performance management uses clear targets and factual data that are made transparent across the organization to achieve business goals and desired outcomes. Healthcare providers who embrace this management approach have seen dramatic improvements in clinical, financial an operational performance. However, despite well-documented benefits and the best intentions, few performance management programs get past the planning stage. The quest for perfection, more than anything else, is to blame. Yet an effective system used every day is infinitely better than the almost-perfect system that never leaves the drawing board.

Hospitals looking for real-world results are successfully employing a simple iterative process focused on quick implementations. Instead of investing years of IT, management and consulting resources developing the perfect metrics and scorecard, this approach focuses on creating a usable scorecard today and then refining it based on experience. The keys to getting started are a clear purpose, manageable scale and actionable metrics.

Clear Purpose: Everything starts with and flows from a clear purpose. At the top level, this means the organization's strategy; at the lower levels, purpose is defined by departmental goals and objectives. For example, a department goal to reduce supply costs per case by 15 percent provides a clear goal. If you do not know where you are going, you cannot create the appropriate metrics that tell you when you have arrived.

Manageable Scale: In the case of metrics, less is more. Start with three to five meaningful metrics and fully integrate them into the process and feedback loop of your hospital. Another way to manage scale is to start with a region, facility or department and use the knowledge gained in the process when building the enterprise-wide scorecard. With an iterative process, try to keep the total under 20 for any scorecard. Figure 1 provides an example of the iterative process.
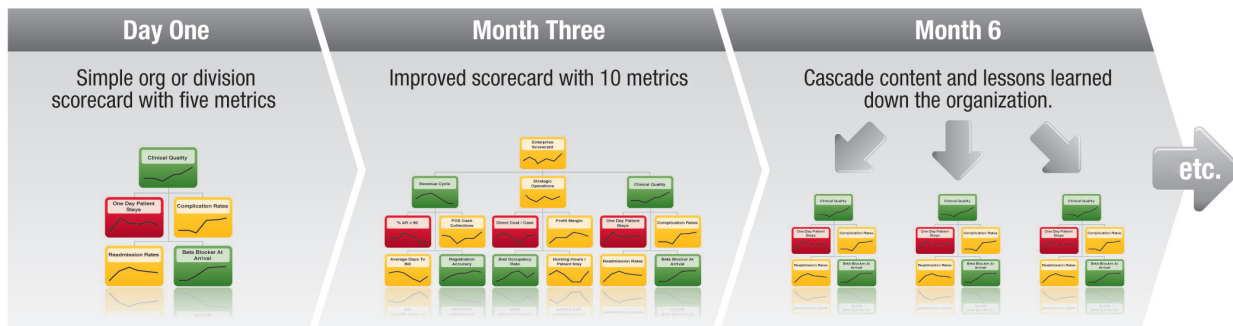
Figure 1: Iterative Process

Actionable Metrics: The best metrics for managing performance use fresh data updated at least monthly. Equally important, performance metrics must spur action. These metrics must be linked to strategy, goals or objectives. The question to ask when evaluating a metric is, "If this metric shows underperformance (increasing denials, for example), what action we will take?" If there is an answer (e.g., increase insurance verification staff), keep the metric. If there is no answer, remove the metric from the list.

## Overcoming the Hospital Data Challenge

Most hospital organizations have disparate clinical, financial and operational audiences requiring varying data for effective decision making. These multiple audiences have resulted in numerous reporting systems, disconnected data repositories and limited distribution of information beyond the executive suite. It is common for healthcare executives, managers and clinical decision-makers to rely heavily upon IT and decision support analysts to manually aggregate data and program complex queries on an ad hoc basis. In most cases, results are delivered in spreadsheets, which are a great tool for many different tasks, but are not well suited to managing the business performance of a large organization. Simply put, hospitals have a difficult time getting meaningful and relevant information to business and clinical decision makers in an actionable format.
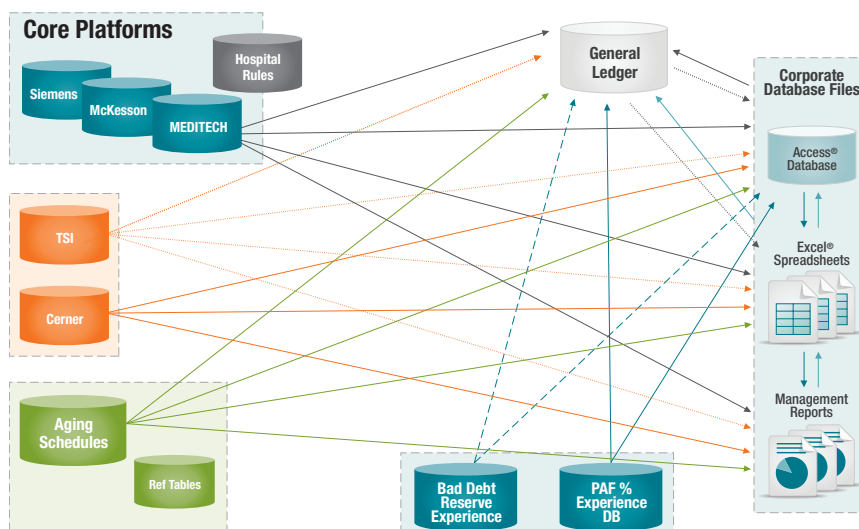
Figure 2: Disparate Data Landscape

The best solution to address this complex hospital data environment is to adopt a hosted, Software-as-a-Service ("SaaS") model. Leveraging a vendor that understands the business of healthcare and has a core competency in turning healthcare data into meaningful information is the key to getting a usable performance scorecard implemented quickly. This SaaS approach to performance management, which is a proven technology in other industries, is now getting traction in healthcare. The SaaS model incorporates a web-based analytics portal delivered in a vendor-hosted environment that requires no hardware, no software and little to no IT resources once the initial data configuration is mapped. Working in a SaaS environment, hospitals can have a robust performance management solution up and running in less than 90 days.

The key to SaaS analytics is the vendor's ability to extract, cleanse, map, merge and load (the ETL process) pertinent hospital data from disparate clinical, financial and operational systems on a timely basis and present intelligence back to hospital decision-makers. This is viewed via the web in a HIPAA-compliant manner using intuitive analytics software. This data transformation process is done from simple flat files automatically exported from hospital IT systems to a secure web site on a daily basis. Senior executives including the CFO, COO and CMO, along with department managers and staff, including physicians, coders and collectors, all have web-based access to *one version of the truth* across the organization – without relying on an overworked IT team to manually pull data or run queries.
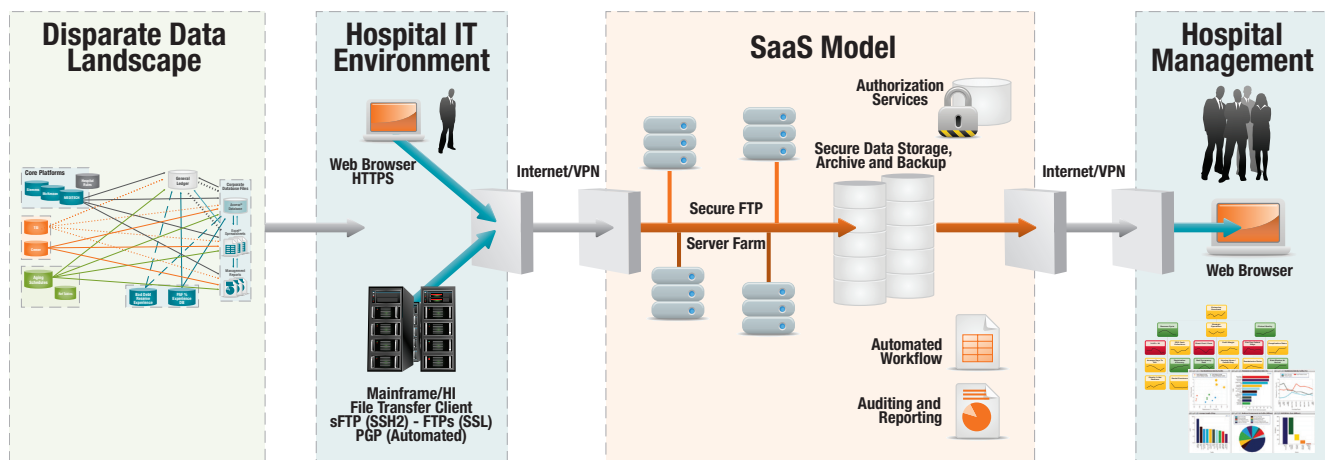
Figure 3: SaaS Model Landscape

Establishing this type of collaborative information infrastructure is a critical first step to achieving measureable business improvements. A SaaS approach allows for the immediate delivery of world-class, state-of-the-art analytics technology that is not invasive of legacy systems and leaves zero IT footprint. SaaS makes it possible for hospitals to implement adaptive scorecards, dashboards and online reports in a matter of weeks. With the technology and data management taken care of, hospital management can focus on the more important tasks of establishing meaningful metrics, setting appropriate targets and driving improved performance.

On What Metrics Should You Focus?

With a usable data infrastructure and scalable implementation plan in place, the next (and arguably most important) step is to determine the appropriate metrics. Fortunately, there is no need to "reinvent the wheel" when selecting best-practice metrics. Various government agencies, clinical quality initiatives, benchmarking organizations, industry associations and your peer hospitals have all published metrics that have set the standards for how hospitals measure performance.

We offer below a list of metrics as a starting point based on our industry research and the experiences of healthcare executives that participated on our advisory panel. This list was formulated with a cross-discipline perspective – CEOs, CFOs, CMOs, CIOs, etc. – with experience at both small hospitals and large systems.

Work with your team to determine which of these metrics to start with. As mentioned previously, start with three to five and adjust based upon feedback. In all cases, room for customization for each hospital organization must exist. This is critical, as one organization's strategic goals will not be the same as another's. Furthermore, the metrics must be dynamic. Developing a good scorecard is an iterative process and metrics must flex to respond to changes in strategic goals, external forces, board requirements, leadership changes, etc. Use 20 as the maximum number of metrics to focus on for any one scorecard.

While our advisory panel felt that the measures below are very relevant to the roles of management, additional steps are needed to make them actionable. These measures must be frequently updated, assist in trending or forecasting and provide benchmarking insight. Scorecards should be capable of measuring against budget, prior year and/or forecast targets. As such, all measures in Figure 4 below should allow for:

» Drilldown to service lines, departments or unit as applicable

» Drilldown to inpatient or outpatient

» Comparison to budget, prior year and/or forecast targets

OPERATIONAL MEASURES	CLINICAL MEASURES	FINANCIAL MEASURES
VOLUME Market Share Percentage Average Daily Census (ADC)[1] Patient Volume[2] Uninsured Volume	**TJC** AMI Core Measure Heart Failure Core Measure Pneumonia Core Measure Pregnancy & Related Core Measure	**PROFIT** Contribution Margin[3] Profit Margin[3] Bad Debt as a Percent of Net Revenue Charity Care a Percent of Net Revenue Self Pay Receivable as a Percent of Accounts Receivable
CASE & EFFICIENCY Patient Satisfaction (HCAHPS) Physician Satisfaction Average Time Emergency Department (ED) Door to Bed Average Time ED Treatment to Release Divert Hours for ED ALOS[4]	**PATIENT STAY** Mortality Rate[5] Case Mix Index Outlier ALOS[4] Complication Rate Readmit Rate[6] Hospital Stays in Last Six Months of Life	**LIQUIDITY** Days Cash on Hand Cash on Hand Average Daily Cash Collections Current Ratio A/R Days Percent of A/R > 90 days DNFB Denials Rate
STAFF Staff Turnover Rate Salary Expense per Adjusted Patient Day Full Time Equivalents (FTE) per Adjusted Patient Day FTE per ADC Supply Expense per Adjusted Patient Day	**PATIENT SAFETY** Medication Error Rate Patient Falls Pressure Ulcer Rate Hospital Acquired Infection Core Measure Never Events Returns to OR	**CAPITAL & DEBT** Return on Total Assets Return on Capital Employed Net Asset Turnover Debt to Equity Ratio Debt to Assets Ratio

by Service Line — *by Department* — *by Unit* — *by Inpatient* — *by Outpatient*

vs Budget — *vs Prior Year* — *vs Forecast Targets*

[1] *Suggested additional drill downs: Payer class*
[2] *Suggested additional drill downs: Payer class, Admitting Physician*
[3] *Suggested additional drill downs: Payer class, DRG, Physician*
[4] *Suggested additional drill downs: Outlier ALOS (e.g., >6 days, <1 day)*
[5] *Suggested additional drill downs: Raw and Risk Adjusted*
[6] *Suggested additional drill downs: 7 Day and 30 Day Unplanned Readmit*

Figure 4: Recommended Measures

Leverage Today's Technology

Scorecards, dashboards and dynamic reports built on a consolidated source of data are the best mechanism to ensure that everyone in the hospital is focused on the same targets and looking at the latest numbers. These types of capabilities ensure there are no issues with multiple versions and manual maintenance as with spreadsheets. When outliers or areas of interest are identified, it is important to be able to drill down to the underlying detail to perform root cause analysis. Scorecards, dashboards and dynamic reports work together to:

1. Proactively identify the existence of a problem (scorecards)
2. Understand the magnitude and historical context (dashboards)
3. Determine the root cause of the problem (dynamic reports)
4. Operationalize the plan to change behavior and fix the problem (scorecards)

Figure 5: Organizational Scorecard

Adaptive Scorecards – **Manage** performance by measuring actual results toward organizational goals and targets. Scorecards keep different areas of the hospital focused on a common plan by monitoring real-world execution and mapping the results back to specific goals and targets. Good scorecards use a simple color or graphical system to provide quick insight for the user. The GPS system in your car, for example, shows progress towards your destination. Keywords used in thinking of scorecards: manage, align, strategic.

Role-Based Dashboards – **Monitor** performance by dis-playing specific graphs for key performance indicators (KPIs). Dashboards fall one level down from scorecards in the business decision-making process and focus more on monitoring operational results. Typically the dashboard is tied to operational goals and is less strategic than a scorecard. The data reflected in dashboards are usually timely (daily, weekly, monthly) in nature and are depicted in a graphical format. Think of your car's dashboard. The speedometer tells how fast you are going right now, but it does not tell you about progress towards your destination. Keywords used in thinking of dashboards: measure, understand, tactical.
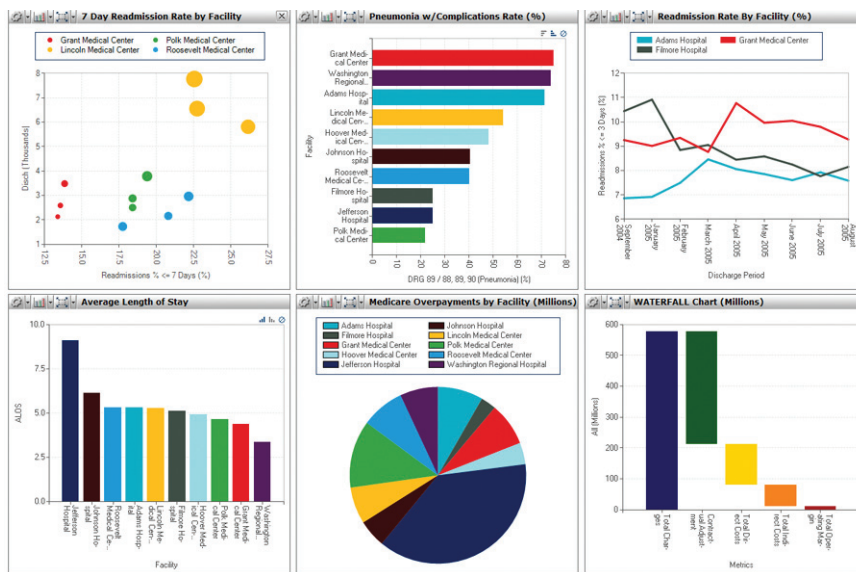
Figure 6: Role-Based Dashboard

Dynamic Reports – Display data in flexible tables that users pivot and filter to answer whatever question they have while **determining root causes**. Report views can be quickly changed on the fly without running a new query. The best scorecards and dashboards drill into dynamic reports. Keywords used in thinking of dynamic reports: analyze, discover, root cause analysis.

Figure 7: Dynamic Reports

Proactive Performance Management

Proactive notification is integral to performance management. Your scorecards, dashboards and dynamic reports should be able to alert you to progress on targets whether or not you are looking at the data. Additionally, ensure that security levels are set by role for access to various views of the data. Figure 8 below illustrates how a scorecard system works in the real world. Through an adaptive scorecard, an alert is sent via email to responsible parties indicating a negative trend or value in a metric (Step 1). Using the associated dashboards, the severity, trend and impacted area are detected (Step 2). Root cause analysis is then performed to determine what change or correction in the process is required (Step 3). With this correction in place, positive change in performance is monitored (Step 4).
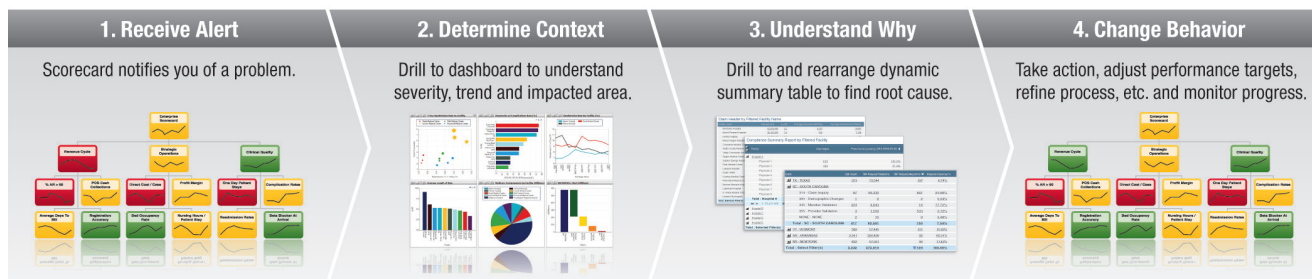
Figure 8: Performance Management Process

Conclusion

Effective performance management focuses on quickly achieving results and changing behavior, rather than being a complicated planning and data management exercise. With the proper technology, the use of effective reporting tools and the selection of meaningful metrics, a hospital scorecard system can be functional and drive results within 90 days. Rather than taxing an already overburdened IT department, leverage the SaaS approach that is fully dedicated to delivering meaningful analytics capabilities. It is not necessary to perfect a robust balanced scorecard with 40 different metrics across the organization. Instead, start with three to five important metrics and learn by integrating these metrics into the daily processes in one department, facility or region. There is no need to start with a blank slate when trying to determine the most appropriate metrics. Look to external sources such as CMS, peer hospitals and benchmarking organizations to quickly determine the proven best-practice metrics for hospital performance. With this straightforward approach, hospital management will soon find themselves free to focus on their more important end goals of achieving clinical, financial and operational performance improvements.

Contributors

MedeAnalytics would like to thank the following members of our Advisory Panel for their invaluable contributions to this paper.

» Dr. Richard Boehler, CMO, Kennedy Health System

» Nick Desien, CEO, Ministry Health Corporation

» Dave Eager, CFO, Aurora Health Care

» George Miller, Jr., former Regional President/CEO, Community Mercy Health Partners

» David O'Connor, CFO/VP Finance, CaroMont Health

» Rich Silveria, Corporate Director of Revenue Cycle, Partners HealthCare

» Joe Sullivan, CIO, Saint Barnabas Health Care System

» Mike Tyson, retired SVP Finance, Tenet

» Jim Wentz, Associate VP/CFO for University Hospitals, UT Southwestern Medical Center

About MedeAnalytics

Founded in 1994, MedeAnalytics delivers performance management solutions across the healthcare system—including hospitals, physician practices and payers—to ensure accountability and improve financial, operational and clinical outcomes. For more information, visit **www.medeanalytics.com**.