

A Mariner White Paper

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Healthcare Performance Management Strategies for Highly Efficient Practices

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Executive Summary

Medical practices are facing increased pressure to adopt more information technology into their daily activities to improve efficiency and the quality of care. The numbers of new systems that are being recommended, and in some cases mandated by government initiatives, hospital systems and insurance companies, has resulted in variety of systems in which patient information must be entered, stored, accessed and managed. For example, with the current Federal Government ARRA mandates, medical practices must adopt certified Electronic Medical Records (EMR) and Electronic Health Records (EHR) systems and eventually share patient information electronically. More electronic data – from within the practice and from outside the practice – begs for better use of the information to respond to these pressures while providing the best care possible.

With all of the electronic information being generated and reported, medical practice leaders have the opportunity to “unlock” all this information to improve financial and patient outcomes.

Best practices performance management principles can be applied to medical practice information to move from “information as an expense” to “information as an asset,” guiding data-driven decisions that will ensure that practices meet and exceed their financial, clinical and customer service goals.

This Mariner Healthcare White Paper introduces key concepts to:

- Manage and use your information to measure performance,
- To create a culture of high-level performance in your practice,
- Empower your practice leaders and clinicians with actionable information, and
- Communicate key performance indicators to support your performance management strategy.

Mariner’s healthcare practice helps hospitals and medical practices improve patient care, financial performance and clinical outcomes. Our experiences and healthcare industry partnerships provide us with a unique understanding of how medical practices can benefit from using data from practice management, electronic health records, patient satisfaction and other information sources for embracing an environment of performance.

Introduction

Medical practices are facing enormous pressure to provide excellent patient care and ensure that profitability goals are being met. Performance criteria that contribute to profitability, such as productivity, capacity, staffing, accounts receivables and collections, are analyzed more frequently and with greater diligence now than ever before. Doctors and administrators continually strive to increase productivity and achieve patient outcome and satisfaction goals.

Rising costs, reduced reimbursements, and competition are pushing medical practices to compete by providing the best value for services. Successful practices are growing by

adapting and putting greater emphasis how they can provide better value, serve their communities better and increase their effectiveness as care givers.

Performance management technology solutions unlock health information residing within the medical practice. Performance Management systems provide practice leaders and clinicians the ability to use a vast amount of data in new ways. Through crisp, easy-to-understand dashboards everyone in the practice is able to make decisions and understand the effect of those decisions on the patient and the practice. In addition, comparisons are readily available among internal and external benchmarks and trends. Performance management systems also monitor changes in processes and behavior to establish a culture of continuous improvement.

This Mariner White Paper provides an explanation of how to incorporate performance management to manage effectiveness and improve patient and financial outcomes.

Target Audience

This white paper is written for medical practice decision makers. The performance management systems addressed are suited for medical practices with annual revenues greater than \$100 million. Practices that currently maintain information systems for financial management, electronic health records, electronic medical records, patient satisfaction surveys, human resources management, and practice productivity reporting will be interested in this white paper.

Background

Many of today's medical practices are being influenced by performance management practices, but many have not fully established a formal performance management approach. It is important to: understand how performance management can be applied to medical practices; learn how to incorporate the systems and processes; and then establish a culture of continuous improvement.

Medical Group Management Association

Organizations like the [Medical Group Management Association](#) (MGMA) are committed to helping medical practices and groups by providing survey-based performance benchmarks. In their 2008 report titled, "Performance and Practices of Successful Medical Groups," the MGMA provides key benchmarks by specialty and practice type for four performance areas:

1. Profitability and Cost Management
2. Productivity, Capacity, and Staffing
3. Accounts Receivable and Collections
4. Patient Satisfaction

The MGMA helps medical practices set goals for performance based on industry benchmarks. They recommend individual practices strive to set their own goals based on internal objectives and consider the industry benchmarks as reported by the MGMA.

The following MGMA reports and articles are used as references for this white paper:

Performance and Practices of Successful Medical Groups
2008 Report Based on 2007 Data
Published 2008 by the Medical Group Management Association

Cost Survey for Orthopedic Practices
2008 Report Based on 2007 Data
Published 2008 by the Medical Group Management Association

Mariner

[Mariner](#)'s Healthcare Practice is committed to helping our medical practice clients unlock and use information to make fact-based decisions. Through practice management dashboards that present the organization's key performance indicators (KPIs), our medical practice clients are able to achieve their financial, clinical and patient satisfaction goals.

Medical Practice Performance Management

By providing unified views of medical practice data on digital dashboards and allowing medical practice personnel to securely explore and analyze the data, our clients are able to:

- Use data residing in separate medical systems, such as EMR, financial systems, and patient satisfaction surveys.
- Monitor, analyze, and report on performance measures using digital dashboards, portals and web-based data visualization.
- Incorporate balanced scorecards, key performance indicators, benchmarking, trends, collaboration, and alerts on digital dashboards.

The result is that everyone plays a vital role in improving practice management by making decisions that are aligned with the goals of the organization.

Considerations in Building a Data-driven Performance Culture

There are several considerations that must be made before starting down the path of implementing a performance management system, including:

- Does the practice have an understanding of its strategic goals, objectives and priorities?
- Does the practice currently capture financial, clinical and patient satisfaction information in electronic systems?
- Is the practice willing to adopt and implement new processes and new technologies to power the performance management system?
- Will the top executives champion and sponsor this effort?
- Will the practice adapt to using a data-driven decision-making process to evaluate performance and drive continual improvements?

The most successful performance management initiatives depend on the willingness of the staff and leaders to use the information as feedback in an ongoing improvement process. If the practice is prepared both culturally and organizationally, then a performance

management system with visual dashboards may be the next step in propelling the practice to better performance and success. If the practice is not able to commit to a performance management system, then the next best option is to obtain good reports from each department.

In addition, a practice should determine what key performance indicators are needed for successful practice performance. Key performance indicators (KPIs) that measure the practice's progress toward its goals are central to any performance management approach. KPIs compare measured performance against targets and shows if the organization is heading toward or away from the desired goals.

The MGMA provides medical practices with benchmarks for performance management that are based on survey data to help set these KPIs. Undoubtedly, each practice will have its own set of KPIs and internal benchmarks. The MGMA and internal benchmarks develop into a meaningful set of goals and objectives for the practice.

Determining Meaningful KPIs for the Practice

Getting through the initial considerations above is key to the success of implementing a successful performance management system. Understanding which measures and metrics qualify as KPIs is an important milestone. Dashboards need to be designed to convey just the information needed for decision making. Discerning KPIs from metrics is critical in this process. For example, MGMA's survey reveals that for Orthopedic Surgery specialty practices, there are 48 Profitability and Cost Management Indicators or metrics. Of these 48, only 10 are listed as KPIs. The MGMA report lists these Profitability and Cost Management Indicators for Orthopedic Surgery KPIs:

- Productivity
 - Total gross charges per FTE physician
 - Total RVUs per FTE physician
 - Physician work RVUs per FTE physician
- Revenue
 - Total medical revenue per FTE physician
 - Total medical revenue after operating costs per FTE physician
 - Total medical revenue after operating costs and NPP per FTE physician
- Cost Management
 - Total operating cost as a percentage of total medical revenue
 - Total operating cost per FTE physician
 - Total operating and NPP cost as a percentage of total medical revenue
 - Total operating and NPP cost per FTE physician

Indicators for Productivity, Capacity and Staffing result in additional KPIs for an orthopedic surgery practice. Of the 39 measures reported 12 are classified as KPIs:

- Productivity
 - Initial gross charges per FTE physician
 - Total RVUs per FTE physician

- Physician work RVUs per FTE physician
- Staffing
 - Total support staff FTE per FTE physician
 - Capacity
 - Inside medical/surgical procedures per square foot
- Cost
 - Total operating cost per FTE physician
 - Total operating and NPP cost per FTE physician
 - Total operating cost as a percent of total medical revenue
 - Total operating and NPP cost as a percent of total medical revenue
- Revenue
 - Total medical revenue per FTE physician
 - Total medical revenue after operating costs per FTE physician
 - Total medical revenue after operating and NPP cost per FTE physician

Medical practice performance metrics, measures and KPIs shown above are orthopedic examples and additional indicators might be needed to ensure each practice is accomplishing its individualized goals and objectives.

Designing Dashboards for the Performance Management System

Properly designed digital dashboards for performance management systems communicate KPIs to the practice and enable individual employees to understand how their performance aligns with the goals and objectives of the practice’s strategy. A well-designed dashboard helps the staff work together toward common objectives including:

- Communicate the practice’s strategy
- Monitor and adjust the execution of the strategy
- Deliver actionable insight to all of the staff
- Enable interactive research of the exception data
- Help identify root causes of problems

In his book *Information Dashboard Design*, [Stephen Few](#) explains that the primary goal of a dashboard is to enable visualization of data to quickly identify problems by pointing to items that are trending outside of the desired goals. Successful dashboards are not designed with lots of different charts, graphs and gauges. Successful dashboards are concise, clean and focused on a visual format that enables the user to quickly understand where changes in performance need to occur. Simple is better.

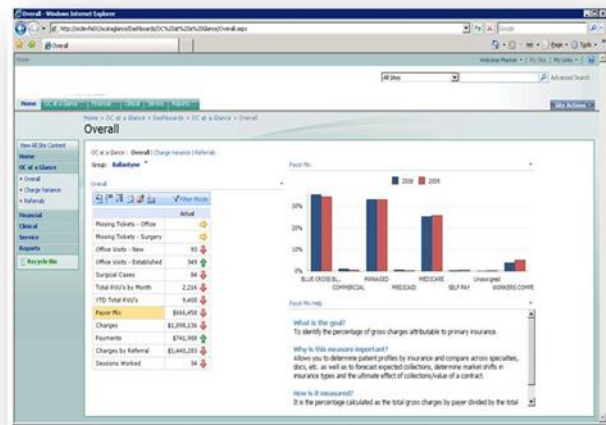


Figure 1- Sample Dashboard with Measure List

In a nutshell, dashboards should:

- Use the power of visual perception to the practice’s advantage
- Emphasize what is most important
- Remove what is not necessary

Performance management dashboards are designed to present KPIs, measures and metrics.

Although there are several approaches to visualizing KPIs, a [balanced scorecard](#) provides a meaningful way to visualize how each KPI affects the organization.

Figure 1 shows an example dashboard with a list of measures and a chart showing the trends over time for a specific measure.

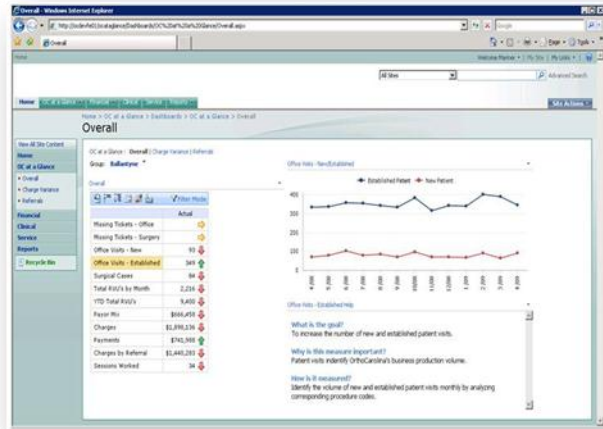


Figure 2 - Monitoring Patient Mix and Appointments

Figure 2 shows how patient goals are related to practice production and results.

Figure 3 shows how a balanced scorecard is used to determine the effects of payer denials and how this affects the overall practice.

Connecting Data to Power the Digital Dashboards

Medical practices generate huge amounts of data. For example, a practice might support information systems that include:

- Electronic Medical Records
- Electronic Health Records
- Radiology Information Systems
- Medical Practice Management
- Medical Billing
- Prescription Management
- Imaging Systems
- HR
- Patient Satisfaction
- Others

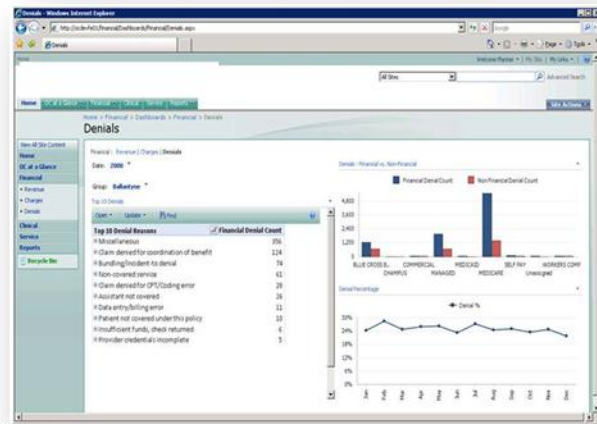


Figure 3 - Details trends in Payer Denials

Each of these systems is a source of critical data needed to provide quality patient care and ensure efficient operations. To design a performance management approach the information

residing within each of these systems must be combined into a single dashboard environment.

Medical practices must also consider how performance management benefits individual decision-makers. Whether the user is the executive or chief medical officer making strategic decisions or an individual employee making daily decisions, performance management needs all the information from critical systems to be automatically available within the Performance Management system.

Evolving into a performance managed medical practice requires system-wide access to all information needed to present measures, metrics and KPIs within scorecards and lists.

Medical practices are only now beginning to adopt performance management with connected and data-driven dashboards. Often the stumbling block to pervasive performance management is that of the underlying data systems do not “speak” to each other. In most cases, getting to the data needed to make performance management work is extremely labor-intensive. Once the data is obtained and analyzed it is usually too late to be of much value for monitoring and changing behavior to meet performance goals.

Administrative managers and managing doctors trying to solve a variety of performance issues (e.g., clinical, financial, employee, and patient) are often unable to piece together all of the data to understand what is driving performance. Often time is spent just getting to the data and generating reports and there’s little time to truly analyze the results, understand the correlations, and identify the potential cause-and-effect relationships.

Data management is required to communicate strategy and to align historical performance (monitoring) with strategic objectives (analyzing) and then measuring against goals and targets (performance management). Effective data management assembles the pieces of all the practice’s information systems including clinical, operational, financial, human resources, patient satisfaction, planning and governance. In addition, data from outside the practice, such as MGMA is vital to data management that will have a meaningful, positive and lasting effect on the practice.

The most successful medical practices are those that have defined a strategic data management approach and have taken the time and effort to put this in place. They have recognized that data management is at the heart of their performance improvement efforts.

Case Study: OrthoCarolina

OrthoCarolina is one of the nation’s leading orthopedic practices with offices across the Charlotte region. The group has over 120 physician & physician extenders and sees approximately 550,000 patients annually.

OrthoCarolina has established financial, clinical and service-related goals to ensure consistent delivery of outstanding care throughout its dedicated locations and in area hospitals.

Key to meeting these goals, OrthoCarolina has adopted a performance management approach, implementing an automated solution to create efficiencies, increase service capabilities, and track financial performance. They now have a holistic view of information was vital to analyzing progress against their strategic goals.

By aggregating information from practice management, electronic health records and patient satisfaction sources, OrthoCarolina empowers practice administrators, physicians and clinical teams with the most current data presented in a meaningful visual and actionable form.

OrthoCarolina uses dashboards to exploit the data within their IT systems to achieve their organizational goals and to continually monitor process improvement initiatives. By seamlessly integrating information from different systems into a single user environment, OrthoCarolina is well positioned for continuous improvement and adaptability to change.

Conclusions/Recommendations

Medical practice leaders constantly seek ways to:

- Increase their ability perform more effectively,
- Improve patient satisfaction,
- Generate increased efficiencies,
- Improve financial position for the practice,
- Implement meaningful improvement programs,
- Create a more satisfying practice environment for employees and patients,
- Positively affect the practice's relationship with its hospital and payer partners, and
- To quickly and easily review reports and analyze trends that will enable swift action to improve performance.

The writers of this White Paper hope that medical practice leaders will seriously consider:

- The future medical practice will be rich with information.
- Systems presently in use and those being introduced today are designed to provide specific information results and in most cases are not designed to communicate with other medical practice systems.
- Additional insight into medical practice information is needed to improve financial, clinical and patient satisfaction outcomes.
- Creating a culture of performance management will help leaders set and meet practice goals and objectives.

We recommend that medical practices leaders take the time to understand what systems are being used today and the value of the information being stored in those systems. We urge practice managers to envision how this abundance of information could be used to benefit the practice and hope that performance management principles can be injected and applied.

Practices should also consider engaging with a professional for a "check-up." During this engagement, consultants can diagnose and recommend how financial, clinical and

administrative information can be unlocked and used to help establish a culture of performance management.

About the Authors



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Rob Capozziello has more than 28 years of experience delivering strategic systems solutions and software products with more than 15 dedicated to the healthcare industry, having worked with Novant, Carolinas Healthcare, and OrthoCarolina. Mr. Capozziello has led consulting firms specializing in strategic planning, project management and information architecture, and served as Chief Information Officer for a number of startup firms. Mr. Capozziello is a graduate of Appalachian State University with a B.S. degree in Business Administration with a concentration in Decision Sciences. Rob can be reached at rob.capozziello@mariner-usa.com.



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Michael McCarthy is a Business Development Manager at Mariner, responsible for helping clients make informed decisions about business intelligence and performance management initiatives and practices. Michael has more than 25 years of experience developing technology solutions for computer, telecommunications, utilities, government, manufacturing, and healthcare industries; having spent the last 7 years focused on technology solutions that help clients communicate, collaborate and operate more effectively. Michael has a bachelor degree in Electrical Engineering and a Masters in Business Administration. He can be reached at michael.mccarthy@mariner-usa.com.

About Mariner

Mariner specializes in business intelligence, data warehousing, business scorecards and performance dashboards to help clients improve productivity and decision making in a variety of industries including the education, utility and healthcare industries. Mariner is a Microsoft Gold Certified Partner with specializations in Business Intelligence and Performance Management Solutions, Microsoft's Worldwide Partner of the Year for 2008 in Performance Management Solutions and TDWI's Best Practices Award Implementation Partner for 2009.

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