

The Intersection of Cost, Quality, and Risk:

Achieving Excellence in a Value-Based World

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INTRODUCTION

Healthcare professionals have long recognized how poor-quality patient care leads to increased costs. Patients require more resources when they're treated multiple times or readmitted to hospitals for the same, lingering problems. This contributes to US\$750 billion worth of unnecessary services, excessive administrative expenses, and other costs, according to the Institute of Medicine.¹

But even as payers and providers work to drive down costs, healthcare continues to get more expensive. Costs in the UK are expected to rise 6 percent in 2018, up from the previous two years.² Similar percentage increases are forecast for Germany and the Netherlands. Rises across Latin America could spike more than 11 percent. In the US, medical costs have been climbing more than 6 percent annually since 2014, with 2018 gains hovering around 6.5 percent.³

While there's no single cause behind cost increases, expensive new drugs and medical devices, readmissions, inconsistent quality of care, and cost variability certainly contribute to the problem. Further complicating the issue are healthcare decisions influenced by fee-for-service models and the failure of healthcare organizations to fully quantify risk. The consequences of these gaps extend beyond traditional cost-management considerations. When unaddressed, they can severely undermine service-line performance. In addition, providers can easily find themselves locked into unprofitable agreements with payers, especially as value-driven models continue to proliferate. Left unchecked, quality problems may also lead to reimbursement penalties and lost revenues as patients seek out alternative providers with better satisfaction scores. These shortcomings exacerbate the financial challenges that healthcare systems may be facing, and make it more difficult to achieve the ultimate goal of higher-quality outcomes for patients.

No wonder that governments, commercial payers, and ministries of health throughout the world are looking to alternative reimbursement models that are value-driven. Individual countries may be at different levels of value-based maturity (and fee-for-service models will not go away entirely), but they all share the common goal of reducing cost while improving quality. This trend is making it more important than ever for healthcare providers to identify risk across entire episodes of care by making a direct link between cost and quality. However, this linkage has historically been difficult to isolate.

Fortunately, there's good news for healthcare providers that have been wrestling with value-based models. By capitalizing on electronic medical records (EMRs), quality indicator data, new cost methodologies, and cloud technologies, organizations are developing deeper insight into identifying and mitigating risk across an episode of care. With the right approach, providers can attain more competitive and financially viable operations for delivering high-quality patient services.



CHANGING LANDSCAPE: THE SHIFT TO VALUE

It's clear why the fee-for-service model is under pressure. Because provider reimbursements have historically been linked to the types and volumes of treatments and tests performed for patients, there are inherent incentives to perform a multitude of services: an additional test, an overnight-for-observation hospital stay, or a follow-up exam. While these services may be appropriate under some circumstances, there may be a bias to recommend them, even when avoiding them would represent a low risk for patients. The fee-for-service model becomes an addiction that leads to increased healthcare services—regardless of whether the additional care adds value.⁴

Proponents argue that a better alternative is value-based care, an umbrella term for a variety of financial models that stray to varying degrees from traditional fee-for-service approaches. No matter the variation, each strives for the same fundamental goal: to improve outcomes while simultaneously making care delivery more efficient and less expensive. Value-based care strives to do this through a series of incentives for improved performance, and in some cases penalties, if cost and quality ratios stay stagnant or become worse.

Regional variation.

Value-based strategies are arising throughout the world. In the UK, the National Health Service's RightCare program offers a framework for reducing patient risk and wasteful delivery services through analytics, evidence-based procedures, and other measures. In Sweden, value-based programs are available for 70 percent of citizens, covering eight care categories.⁵ Early successes there are helping to fuel greater adoption. In Stockholm, a value-based pilot established total costs to be shared among providers across the care continuum for hip or knee replacements. After three years, researchers tracked a 26 percent drop in complication risks and a 20 percent decline in costs, with patient wait times also decreasing.⁶ In the US, the Centers for Medicare & Medicaid Services promote a number of value-based care programs, ranging from end-of-life care, strategies for reducing hospital readmissions, and skilled-nursing facilities.

Not every region is embracing value-based care, however. For example, unlike many of its neighbors, Switzerland has avoided value-based approaches for setting pharmaceutical prices, which are negotiated by the Federal Office of Public Health and pharma companies.⁷ For various technical and cultural reasons, other countries show a range between active commitment to value-based healthcare and remaining on the sidelines. Regardless of value-based care adoption, all organizations share a need to reduce cost and increase quality.

To move forward in the journey toward value-based care, healthcare organizations must balance the changing dimensions of costing, risk versus reward, and quality.



IMPACT ON HEALTHCARE COSTING

Cost accounting, and its associated data, is pivotal for analyzing a number of healthcare decisions, including large bond refinancing, expanding outpatient services, acquiring home-health and long-term care facilities, and strategic budgeting. Cost accounting must also inform service-line and physician profitability studies.

Current approach.

Hospitals base current cost-accounting methodologies on process-costing concepts utilizing relative value units (RVUs). Clinical experts estimate the amount of resources required to carry out patient-care activities in their departments. These estimates are the backbone of the RVUs, which then determine how costs are allocated among the various services provided to patients.

Looking forward.

Value-based reimbursement models will drive the need to increase the level of maturity and process standardization in costing. Additionally, cost data combined with clinical quality data are facilitating advanced analyses and improvement efforts. This comprehensive clinical dataset is required to identify, quantify, and measure clinical-improvement initiatives that can impact cost. The transition to EMRs will enhance costing and allow more cost data to be based on actual time spent on individual patients through time-derived, activity-based costing (TDABC) and may also provide other patient-specific cost data.

Healthcare providers also need to understand cost across an episode of care. Episode-based payments are at an early stage, but interest in them is growing. In contrast to traditional fee-for-service reimbursement where providers are paid separately for each service, an episode-of-care payment covers all of the care a patient receives in the course of treatment. The goal is to achieve savings in one or more of the following ways:

- Negotiating a bundled payment where the total cost may be less than fee-for-service care
- Sharing savings between payer and provider for total expenditures under episode-of-care payment, which may be less than costs, would have been under fee-for-service care
- Incentivizing reductions in complication by discontinuing additional payments to cover the costs associated with fee-for-service practices

Episode-based payment models are just one example of the proliferation of value-based models that balance risk and reward. These models are persuading providers to modernize their cost-accounting tools and processes to avoid unprofitable agreements.



RISK VERSUS REWARD

As the industry transitions toward value and away from fee-for-service care, understanding risk becomes paramount. Value-based initiatives shift the care-delivery focus from volume to value, and redefine financial incentives toward reduced costs. Value-based models vary in how they tie reimbursements to outcomes and the amount of transformation they require for organizations that seek alternatives to fee-for-service methods. The following list summarizes some leading program types and their relative risk-to-reward ratios.

Lower risks, lower potential rewards.

PAY-FOR-PERFORMANCE MODEL (P4P)

With the pay-for-performance model, providers receive bonuses or penalties compared to fee-for-service rates based on how well they meet the performance goals negotiated with payers. The pay-for-performance model can be one of the easiest to implement, assuming that providers have a reliable IT foundation for gathering and analyzing data, as well as for creating reports that accurately demonstrate performance outcomes.

PATIENT-CENTERED MEDICAL HOME MODEL

This model pays a coordinated team of healthcare professionals brought together for start-to-finish episodes of care. Advocates say close coordination has the potential to reduce readmission rates and produce better outcomes, including for chronic diseases. In addition to patient records shared by the team members, data from outside sources such as disease registries is brought in to inform the treatment strategies.

Somewhat higher risks, incrementally higher rewards.

BUNDLED PAYMENTS

Payers and providers agree on a set cost for all elements of a discrete procedure or treatment plan, such as those for hip or knee replacements. Providers then divvy up the money to caregivers, facilities, and any other relevant resources. When participants find efficiencies or error reductions that keep costs under the bundle payment, they share the proceeds—or face the financial consequences when problems arise. Payers benefit by not voiding costs for readmissions and other overruns, and by having more predictable expenses.

Moderately higher risk, higher rewards.

ACCOUNTABLE CARE ORGANIZATIONS (ACO)

These voluntary collaborations among doctors, associated healthcare professionals, and hospitals provide coordinated care for Medicare patients, those with chronic conditions, and others. As with other models, ACOs share the rewards or consequences resulting from how well they meet established performance thresholds.

PROVIDER-SPONSORED HEALTH PLANS

Many health care providers are weighing a move into the health plan space, with responsibility for administering insurance plans, as well as providing care. This level of financial control gives providers full rein to determine treatment policies and associated costs. But it comes with added risks and responsibilities for processing claims, establishing new types of customer-service resources, and complying with insurance industry regulations.

High risks, high rewards.

CAPITATION

After developing fee structures based on industry cost data, information about patient populations, and the risk associated with individual encounters, providers establish per-patient costs for treatments and procedures. Money comes to provider networks as per-patient payments based on the types of services delivered, the size of the patient population, and other factors.

IMPORTANCE OF QUALITY

Many of the costs of quality are hidden and difficult to identify. Only a minority of the costs associated with poor and good quality are obvious. But there is huge potential for reducing costs by revealing insights buried in data: Identifying and improving these areas will not only reduce cost, it could also significantly improve outcomes.



Performance measures.

Key performance indicators and measures are central to improving the quality of healthcare. Performance measurement conveys that what is important is measured, while what is not measured is considered less important.

Quality indicators developed and maintained by the Agency for Healthcare Research and Quality (AHRQ) are measures that can be used to gauge performance and can be correlated to cost.

With the adoption of EMRs, performance measurement using quality indicators has the potential to reduce the variability seen in poorly coordinated systems that drive up costs and puts patients at risk.⁸

The drive for successful outcomes is fueling growing interest in healthcare quality indicators, such as those from the AHRQ. The AHRQ quality indicators are one set of performance measures that can be an inexpensive, readily available data source. They help hospital administrators and clinicians assess their performance against internal and industry benchmarks, identify areas for improvement, and provide a foundation for analyses related to value-based care initiatives. Administrators and auditors derive quality indicators from a variety of information sources, such as patient admission and readmission data, discharge summaries, mortality rates, and reports of errors and complications. In addition to overall assessments, providers and payers can use quality indicators to track subsets of medical operations such as coronary procedures, hip-replacement surgeries, or the ability to help patients avoid or mitigate chronic diseases like diabetes.

Quality indicators help providers address one of the key hurdles for value-based care strategies: assessing and addressing risk. Without accurately understanding the inherent risks associated with their internal operations and patient populations—and the resulting financial impact—administrators can't see their total costs. This may result in financial insolvency if administrators enter into unprofitable value-based care agreements with payers and government agencies.

Overcoming these challenges requires benchmarks and a holistic view to all costs, which is difficult for many healthcare systems. Analyses must span preoperative, acute, and postoperative activity, including physician comparisons, clinical supplies, indirect costs, and related quality metrics. When evaluating cost at procedural- or diagnosis-related group (DRG) levels, it is important to correlate the associated quality-indicator data with risk factors and the potential impact on cost.

Today, cost and quality data are more accessible than when medical records were entirely paper-based, but even with EMRs, the necessary data often isn't stored centrally nor is it easily accessible.



THE ROAD TO VALUE

Despite the potential benefits, providers continue to struggle with value-based care models. The core challenge is how to successfully balance costs, risk, and quality of care. Delivering quality outcomes isn't only the core mission of healthcare organizations; without it, financial improvements will deliver only a fraction of the potential rewards that value-based care initiatives promise.

The close link between quality and overall performance isn't unique to the healthcare industry. A global survey of executives representing many industrial sectors, including healthcare, found that quality is seen as an essential catalyst for growth and business performance. 47 percent of respondents credited their efforts at continuous improvements for spurring profitability growth.⁹ More than a third of the executives in the survey also said that high-quality performance had a significant, positive impact on customer satisfaction.

On the flip side, the consequences of poor quality ripple throughout organizations. They send customers to competitors and dilute revenues and profits. For example, problems with accelerator pedals racked up US\$2 billion of losses for one large automobile company earlier this decade, while a manufacturer of coffee machines saw its stock fall more than 2 percent after it recalled 7 million units.¹⁰ Similar consequences arise in the healthcare industry when quality problems lead to readmissions, or when care provided by the clinical staff varies from best practices proven to produce the highest-quality outcomes.

Providers need transformative resources for standardizing, aggregating, cleansing, and analyzing all relevant cost data required for successful value-based care engagements. The following three objectives can help them gain greater visibility into the link between cost and quality.

Merge cost and clinical data.

While there are a wide variety of approaches for addressing value-based care, they all have something in common: They're all built on a foundation of data and analytics. To monitor their progress in meeting program thresholds or reporting their performance to payers, providers must gather, cleanse, aggregate, and analyze large volumes of information, ranging from costs for procedures and pharmaceuticals to population health trends, readmissions, and a host of other data points. The era of EMRs is partially helping these efforts. The information is available in digital form; the trick is finding and gathering it from the multiple organizations that provide care, from the first patient encounters when a diagnosis is made to preop, acute-surgery, and postop activities. The needed information isn't just dispersed among different organizations; it often resides in standalone, stove-piped systems that challenge data-sharing efforts.

Healthcare systems can overcome these problems with scalable, cloud-enabled data warehouses that aggregate operational and clinical data across all of the steps in episodes of care. Visibility and traceability of cost data provides clear understandings of activity across the entire episode of care, while administrators can use analytics to predict risk in patient populations as well as pinpoint outliers that impact cost.

Business intelligence applications and emerging analytics, such as artificial intelligence, are needed to gain deeper understandings of quality issues, evaluate the total cost of each episode of care, and identify areas where excessive costs can be eliminated. Oracle's Business Intelligence Cloud Service can analyze both historical and predictive analysis to mitigate risk and address issues impacting cost.



Leverage quality indicators.

The use of quality indicators and overall quality improvement should not be considered a one-time effort to achieve a quality state. Quality is a continuous and conscious effort to raise the standard of practice in all areas and process of any hospital.

Enabling providers to analyze and improve quality performance paves the way for healthcare organizations to increase their standard of care, meet federal care-quality objectives, as well as improve outcomes, which reduce per capita cost.

Capitalize on cloud services.

Cloud-based profitability and cost-management applications, data warehouse and analytics platforms, and autonomous capabilities will continue to grow in importance because they are both cost-effective and scalable. As organizations expand their rollouts of data-intensive, value-based care activities, providers are recognizing the need to shift their resources to improving business process rather than trying to keep pace with legacy, on-premises tools. Cloud services offer healthcare organizations the capabilities needed to move forward in a value-based world.

Standardize costing processes.

Health systems are determined to break down the virtual walls between care centers, while standardizing service lines and costing processes across the enterprise. Current departmental approaches don't accurately reflect a patient's journey through the care-delivery system, as patients may cross numerous departments and organizational boundaries. Further compounding this problem is the fact that budgeting, costing, and care routines typically vary by location.

By standardizing processes across the organization, a health system can apply financial best practices and increase the consistency of processes and workflows to root out cost and quality variation.

With industry standards and modern best practice, Oracle Enterprise Performance Management (EPM) Cloud helps healthcare organizations drive accurate plans across financial operations and lines of business. It enables organizations to analyze profitability and cost management, accelerate the financial close, and prepare for value-based care.

CONCLUSION: BUILD A STRONG FOUNDATION

To truly support the intersection of cost, quality, and risk to achieve excellence, healthcare organizations need a robust foundation. It must be one that can enable a future state where clinical and quality data, along with costs across an episode of care, are combined to deliver their full potential.

With a solid foundation of scalable cloud technologies that span analytics, data warehousing, and enterprise performance management, organizations can reduce risks leading to severe financial consequences. Transformative technologies supported by the cloud now provide the necessary building blocks for ensuring successful value-based care initiatives and improving patient outcomes.

Oracle has a long and growing presence in healthcare worldwide, including payers, providers, academic medical centers, and specialty care. Oracle Cloud is the most powerful, unified cloud solution suite available today, redefining how healthcare organizations can transform and innovate in a digital world.

LINKS FOR MORE INFORMATION

- | | |
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| <ul style="list-style-type: none">• Oracle EPM Cloud• Oracle Profitability and Cost Management Cloud• Oracle Analytics Cloud | <ul style="list-style-type: none">• Oracle Autonomous Database• Oracle Cloud Platform• Oracle Healthcare |
|--|--|

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Integrated Cloud Applications & Platform Services

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