

# Harnessing Enterprise Data Analytics for the New Healthcare Economy

A Roadmap for Extending Actionable Insights Across the Healthcare Ecosystem

Healthcare is in transition. Reimbursement models are changing. Regulatory pressures and penalties are threatening revenue. Patients are taking a more active role in their healthcare which forces providers to compete on cost and quality. Recognizing they cannot go it alone, healthcare providers and payers are consolidating at a scale never before seen in healthcare.

Now more than ever, as they face a new healthcare economy, healthcare organizations need a holistic, enterprise-wide view of their businesses. They need valuable data insights to help them tap into cost savings, streamline operations, and ensure quality care. The challenge, however, is that data is often confined to departmental silos or aggregated into data repositories without delivering actionable insights to the decision-makers who need them most.

This white paper outlines best practices that enable healthcare organizations to harness their data to create value in this transformative era of healthcare. We'll discuss how enterprise analytics is less about the superiority of technology or data aggregation than the ability to create value, accelerate wins, and solve business problems. We'll show how the healthcare c-suite can devise an analytics strategy built on the meaningful business insights needed to adapt to an evolving healthcare economy. We'll also examine the healthcare technology ecosystem and identify where the internal IT organization can create value and where specialized analytics providers can lend assistance and expertise.

While data warehouses certainly add value as data aggregation platforms, implementing them is just the first step in creating an analytics infrastructure.

## The Challenge: Harnessing Data in the New Healthcare Economy

Healthcare is undergoing a fundamental transformation. The shift from volume to value affects not just reimbursement, but also the healthcare organization's entire approach to delivering quality healthcare. Understandably, this transformation is not without its difficulties.

The front-runners in this transformation recognize that many of the answers to their most pressing challenges lie hidden within their data. As healthcare becomes increasingly digital, data is growing at exponential rates and has the potential to lend empirical insights to decision-making. However, that data often remains stuck in transaction system databases and requires significant IT resources and analytics expertise to make the data accessible to business leaders and staff.

In an effort to harness disparate data, many healthcare organizations have invested in data repositories and enterprise data warehousing technologies. These data warehouse investments alone, however, often fail to deliver measurable business value and should not be confused with an enterprise analytics strategy. While data warehouses certainly add value as data aggregation platforms, implementing them is just the first step in creating an analytics infrastructure.

Building a flexible, agile analytics program poses challenges for both technical and business leadership. For technical leaders, advanced analytics requires significant expertise, predictive models, business rules, benchmarks, and best-practices content, all of which are well beyond the technical capabilities of a data repository. For business leaders, the challenge can be even greater as the organization must define primary business use cases, identify key value levers, and decide where to focus the analytics platform to create value quickly. This "last mile" of converting aggregated data into meaningful business rules and insights can be the most difficult for IT departments tasked with creating business value and demonstrating a return on analytics technology investments.

## The Solution: Accessible, Self-Service, Enterprise Analytics

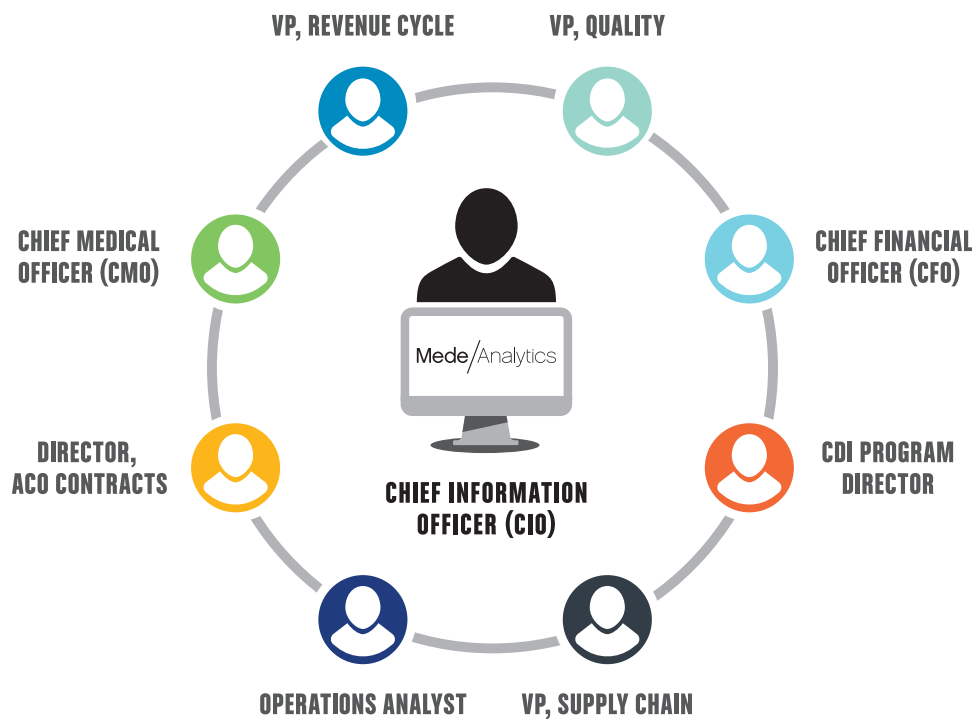
Rather than confining data to departmental silos or relying on IT resources to build reports, healthcare organizations can minimize the gap between data and insight by providing self-service analytics directly to business users. Self-service analytics democratizes data, allowing decision-makers to not only engage and interact with data, but also glean insights from across the entire healthcare enterprise. Business users can interact with the analytics in a way that makes sense for their particular roles. Certain executive users may prefer to consume information in pre-defined dashboards and report libraries, while front-line staff may need more interactive analysis and patient-level detail. A successful analytics strategy will accommodate both scenarios and meet the needs of multiple roles across the organization.

"Healthcare organizations must deliver higher performance to succeed in the fast-changing industry environment," Gartner states in its recent report, *Developing the Healthcare Analytics Strategy*. "CIOs and chief data officers must ensure their organizations master the use of advanced analytics to achieve cost, quality, and consumer/patient satisfaction objectives."

“CIOs and chief data officers must ensure their organizations master the use of advanced analytics to achieve cost, quality, and consumer/patient satisfaction objectives.”

– Gartner

With an enterprise analytics strategy, focused business use cases, and self-service analysis, healthcare organizations can move the needle on population health, value-based reimbursement, and clinical quality initiatives. They can benefit from financial analytics within the revenue cycle, coding and documentation, and payer contract performance. They can also tap into operational analytics to achieve gains in labor, productivity, and supply and cost utilization. Opportunities in clinical areas include improvements in surgical services, emergency department utilization, and clinical service lines.



*An enterprise analytics strategy enables the CIO to extend meaningful business insights to decision-makers across the enterprise*

In addition, an effective data analytics strategy includes closed-loop action and accountability planning. This extends the power of analytics beyond business intelligence, dashboards, and static reporting. It offers tools to communicate, align, measure, and ensure performance against strategic planning—at all levels of the organization. By creating dynamic, action-driven plans, healthcare organizations can deliver results in less time, with fewer resources, and with a greater impact on the bottom line.

# 10

## Lessons Learned: Transforming Data Landfills into Business Value

Nearly every healthcare organization is somewhere along the journey of building a data warehouse or enterprise analytics platform. However, very few of these initiatives succeed in creating strategic value. More often than not, the result is a data landfill that does little to improve data accessibility yet requires significant IT resources to support various reporting tools in departmental silos.

Despite the heavy lifting of aggregating data into an enterprise data warehouse, that “last mile” of delivering value to business stakeholders is the most difficult part of the journey. Use these 10 lessons learned to simplify the process.

### 1 START WITH BUSINESS USE CASES, NOT TECHNOLOGY

The primary purpose of healthcare analytics is to create business value for the organization. Data analytics and warehousing are merely tools to drive business value. A successful analytics project begins by identifying business stakeholders and understanding their needs for reporting and analysis. What business problems are they trying to solve and how can enterprise analytics create value? An analytics platform must be more than a massive IT project built to aggregate data and run inquiries. It must be designed to solve the organization's most important business problems.

### 2 ACHIEVE QUICK WINS

Instead of trying to solve all problems across the enterprise, start small, with just a few essential use cases and a small group of business stakeholders. Identify the one area where analytics can have the greatest impact and identify champions to evangelize the initiative. Many data warehousing projects linger for years while IT staff attempt to configure a massive enterprise-wide platform. In the meantime, business stakeholders see no progress or immediate value. Focus on one or two small use cases and promote those successes to build goodwill and support for further initiatives. Doing so gives executives confidence in the IT organization to create business value through enterprise analytics.

Focus on one or two small use cases and promote those successes to build goodwill and support for further initiatives.

### 3 CREATE A DATA-DRIVEN CULTURE

Most healthcare organizations have a very siloed structure for analytics and reporting. Departments use different tools and have varying levels of competency in analyzing data. Alternatively, establishing an enterprise analytics department elevates the importance of data analytics and creates a data-driven culture. By centralizing analytics, the healthcare organization can spread analytics expertise across the organization, standardize an analytics platform, and create governance for consistent calculations and metrics. Centralizing the analytics function within IT often makes organizational sense, but it is important to balance technical proficiency with an understanding of business issues and use cases. Ultimately, the enterprise analytics department is responsible for championing a holistic approach to business and technical analytics capabilities across the organization.

Centralizing the analytics function within IT often makes organizational sense, but it is important to balance technical proficiency with a solid understanding of business issues and use cases.

#### 4 FIND DEPARTMENTAL BUSINESS LEADERS AND CHAMPIONS

The success of a data warehouse or analytics platform depends entirely on the integration of the technology into business units. This requires leadership and process change, not just beautiful dashboards. Data champions in each department must integrate analytics into their daily, monthly, or quarterly management processes. These departmental champions have a sense of ownership over analytics, taking responsibility for the adoption and ongoing improvement of data. When engagement with analytics comes from the top, it is much easier to sustain adoption and ensure that data analysis is integrated throughout the organization.

#### 5 BUILD TRUST WITH DATA GOVERNANCE

Presenting executives with unreliable data is often worse than no data at all. Physician and clinical leaders, in particular, are skeptical of data and performance measures that are not thoroughly vetted and risk adjusted. A successful enterprise analytics platform requires significant data governance, documentation, and data mapping to help build trust and transparency.

#### 6 OFFER SELF-SERVICE ACCESS TO BUSINESS USERS

Many organizations have invested in an enterprise data warehouse, but have an IT bottleneck in reporting and analysis. Business users typically submit requests for IT to run queries and produce static reports, significantly slowing the adoption and potential of an analytics platform. With self-service access, however, business users can perform their own analysis, run ad-hoc reports, and investigate hunches to identify the root causes of trends. This improves innovation and increases the speed to insights and action.

Self-service access lets business users perform analysis, run ad-hoc reports, and investigate hunches to identify the root causes of trends.

#### 7 LEARN TO WORK WITH PAYER DATA

New payment models and accountable care require that healthcare providers behave more like payers. Unfortunately, most providers have very little experience with payer data and the unique challenges of managing risk for patient populations. With a data infrastructure and staff that can manage and analyze payer data, the organization can develop analytics for PMPM cost and utilization measures. This supports new business models and uncovers the nuances and potential for creating value with payer data.

#### 8 FIND NEW VALUE IN EXISTING CLAIMS AND BILLING DATA

Many data warehouse and analytics initiatives focus on aggregating clinical information from the electronic medical record. While clinical data is important, most data models are built on a backbone of administrative claims and encounter data. Administrative data (claims, encounters, cost, throughput, invoices, payroll, patient surveys, etc.) is structured for analysis and is well understood by business users. A majority of risk models and clinical measures (CMS quality measures, HEDIS measures, readmissions) can be derived from billing and claims data. The value of this administrative data should not be underestimated.

The value of this administrative data should not be underestimated.

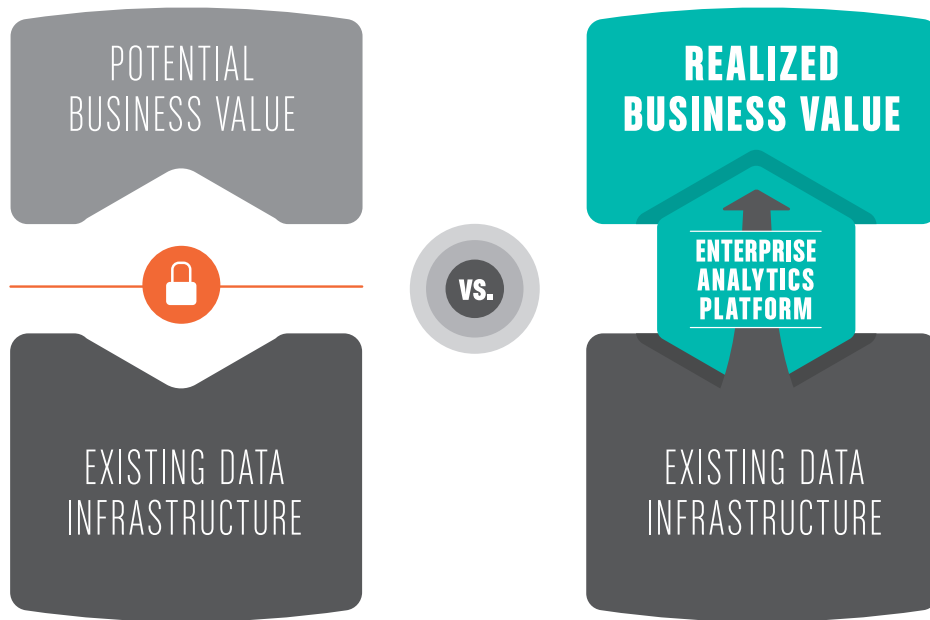
**9 CAPITALIZE ON THIRD-PARTY BENCHMARKS AND MODELS**

An effective analytics platform enriches data with business rules, predictive modeling, external benchmarks, and best practice data visualization—offering more than just a mirror of source data. This advanced data enrichment differentiates basic reporting from true analytics. When developing a data warehousing strategy, prioritize business value over aggregating disparate data and moving it from one database to another. This often requires the integration of third-party predictive models, external benchmarks, and specialized expertise.

An effective analytics platform must enrich data with business rules, predictive modeling, external benchmarks, and best practice data visualization.

**10 DRIVE ACCOUNTABILITY AND BEHAVIOR CHANGE**

Creating value with data analytics requires organizational alignment, accountability, and behavior change. People and processes are often the biggest barriers to organizational change, no matter how great the data analysis effort. The successful analytics program incorporates accountability and process tracking directly into the analytics tools to define ownership of performance metrics, action steps, improvement program status, and integration with other organizational initiatives. To link data to action and accountability, analytics must produce quantitative insights as well as qualitative planning and workflow design.



*A self-service enterprise analytics platform unlocks data and unleashes meaningful business value*

An enterprise analytics strategy is a vital step in the journey from fragmented data to the actionable insights that drive transformation in our new healthcare economy.

## Looking Ahead: Designing Analytics for Tomorrow's Healthcare Economy

With an eye toward a future defined by quality outcomes over volume, healthcare organizations must harness the power of their growing data. However, many healthcare organizations are misguided by the notion that enterprise data warehouses and an analytics strategy built on business insights are one in the same. As they soon discover, investments in enterprise data warehouses by themselves offer limited value to the business decision-makers who require big-picture, enterprise-wide insights to adapt to a changing healthcare landscape.

Fortunately, a flexible, agile, self-service enterprise analytics strategy can extend the value of enterprise data warehouses to generate insights that deliver value to business decision-makers. Whether examining clinical quality, supply chain, emergency department utilization, surgical services, or other business data, these decision-makers must harness empirical insights that create clinical, operational, and financial momentum. Guided by best practices that include self-service analytics, third-party benchmarks, and strategic planning, an enterprise analytics strategy is a vital step in the journey from fragmented data to the actionable insights that drive transformation in our new healthcare economy.

---

### FIND OUT MORE:

For more information about creating a centralized, enterprise-wide analytics strategy, email [Matt Levine \(matt.levine@medeanalytics.com\)](mailto:matt.levine@medeanalytics.com) or visit [www.MedeAnalytics.com](http://www.MedeAnalytics.com).

---

### About MedeAnalytics

MedeAnalytics provides evidence-based insights to solve a real problem that plagues healthcare – how to use the immense amount of patient data collected along the care continuum to deliver cost-effective care and promote a healthier population. Its analytics platform delivers intelligence that helps healthcare organizations detect their greatest areas of risk and identify opportunities to improve their financial health. It empowers providers and payers to collaborate and use data to strengthen their operations and improve the quality of care. MedeAnalytics' cloud-based tools have been used to uncover business insights for over 1,500 healthcare organizations across the United States and United Kingdom. The company has also been named one of *Modern Healthcare's* top 100 Best Places to Work in Healthcare for 2014, 2015 and 2016. For more information, visit [www.medeanalytics.com](http://www.medeanalytics.com).