MDM offers healthcare organizations an agile, affordable solution to deliver high quality patient care and better outcomes.
Many healthcare organizations are struggling with rising costs and inconsistent quality, despite the hard work of providers and clinicians. Functional and IT leaders in both provider and payer organizations have implemented solutions to address these issues, including electronic medical records, enabled clinical decision support, and standardized order sets and care pathways, but the overall impact has been somewhat disappointing.

The time has come, and the technology is now available, to support and accelerate strategies that center on the patient. One in which patients, health plans, employers and suppliers all have a role to play in truly transforming the industry. At the core, it’s about maximizing the “Triple Aim,” as defined by the Institute for Healthcare Improvement1: 1) achieving the best possible outcomes; 2) at the lowest cost; 3) with the best patient experience. Achieving this goal can enable the shift from supply-driven healthcare (or volume-based care or fee-for-service) to value-based care.

Value-based care differs from supply-driven care in many ways: focus on patients’ medical conditions rather than physicians’ medical specialties; measurement of costs and possible outcomes for each patient; integrating care across separate facilities in order to share accurate and timely data; expanding geographic reach. It’s no surprise that master data management (MDM) is at the core of enabling a unified view of the patients, providers and outcomes achieved – the “surprise” may be that today’s MDM platforms can be implemented quickly and cost-effectively, allowing payers to yield benefits in days, not years.

The quest for value in healthcare

Many healthcare organizations are challenged to implement an active and ongoing program to standardize physician care patterns and decrease variability. Leaders at payer organizations are tasked with creating a high-degree of association, cooperation and collaboration among physicians and pharmaceutical companies to retain patients within the network, control costs and ensure quality and consistency of care.

In a healthcare system where consumers are empowered to actively choose between health plans, providers and treatment options, delivering a satisfying, successful and memorable patient experience is key to differentiation in the marketplace. The first step towards winning in a consumer-centric marketplace is understanding how this new informed and engaged consumer views the healthcare system and how they define quality and value.

Healthcare organizations have volumes of data, but, many lack the ability to extract trustworthy, meaningful and actionable insights that can improve the quality of patient outcomes. In order to deliver value-based care, healthcare organizations should not only understand their own processes, procedures and outcomes with unprecedented depth, but also should be able to see and understand the healthcare system from the consumer perspective.

Enabling patient centricity using big data and MDM

Historically, healthcare IT systems have been siloed by department, location, type of service, and type of data. These segmented systems
can complicate the efficiency and effectiveness of analyzing data to support integrated healthcare and a value-based approach. With the right kind of technology, organizations can integrate systems, enable measurement and new reimbursement approaches, and tie the parts of a well-structured delivery system together.

One essential component of this “right kind of technology” is MDM. It brings out the value of all types of data: transactional data, unstructured data, social media data, and machine data. Without it, data, and the decisions made based on the analysis of that data, are suspect at best and likely cannot be trusted. Within the healthcare industry, MDM can be essential to integrating all types of patient data and creating a single, authoritative view of business-critical data from disparate, duplicate, and conflicting systems and sources. Physician notes, lab tests and results, and other data are linked with a common identifier, providing anyone and everyone participating in a patient’s care with a single, accurate view of the data. This is the ultimate goal from a data management point of view.

From the perspective of the payer, MDM can grow market share, improve a full spectrum of operational efficiency, optimize payment lifecycles and improve overall population health. It can also benefit the provider through a reduction in the cost of care, elimination of duplicate data, and
offer real-time, patient centered collaboration that can enhance member experience and drive loyalty.

MDM also enables an organization’s analytical capabilities, creating a 360-degree view of the patient for the payer and the provider, delivering a holistic view of a patient’s interactions. Said in another way, MDM provides a clear view of longitudinal provider interactions and follows patients across services and sites, for the complete cycle of care, including hospital visits, outpatient appointments, testing, and other interactions. With patient MDM, data is aggregated around patients, not departments, units, or geographic locations.

As different types of clinicians start working together in this new value-based model, sharing information must become routine. This means that medical records are accessible to all parties involved in the care. The right kind of medical record should also provide patients with an easy-to-access, centralized way to schedule appointments, refill prescriptions, and communicate with clinicians as needed.

**Powering innovative healthcare analytics by putting MDM capabilities to work**

The value of MDM is well-known, but can have the reputation as a time consuming and expensive process. However, MDM technology has evolved and perceptions are changing. Now, when implemented correctly, MDM is highly-automated, more affordable and can be up-and-running in a short period of time.

Adopting MDM solutions can deliver an agile transformation and help healthcare organizations overcome challenges with inconsistent data quality and the high cost of multiple iterations. The potential benefits can be realized quickly, and also helps provide the ability to access quality data from any source—from EMR applications to data warehousing environments, and claims data-management applications. With enhanced MDM capabilities, developers and business analysts can include any data—big or small, clinical or administrative—in downstream analytics solutions. The potential result: optimized patient engagement, disease management and product offerings.

End-to-end analytics, which include upstream foundational capabilities such as MDM, can help life sciences and healthcare organizations understand the threats and challenges they face, and identify opportunities to improve and expand capabilities that deliver value in all areas of the healthcare system.

**The future of medicine is powered by MDM**

Health systems are undergoing a major transformation in how they receive payment and deliver care. Analytics can assist with the transition. As more and more data becomes available from sources such as electronic health records, medical devices, and patients, analytics can help detect hidden patterns in information, delivering actionable insights and enabling self-learning systems to sense, predict, infer and identify alternatives that might not otherwise be noticeable.

Looking towards the future of health care, such insights are likely to play a major role in helping health systems improve costs and quality, identify at-risk populations, connect with consumers, and better understand performance.
Example use cases: empowering payers and increasing patient satisfaction through MDM

Limited data collection, advanced analytics capabilities and fragmented organization leads many payers to overlook one of their most valuable resources, their data. MDM can provide value in several areas, including:

<table>
<thead>
<tr>
<th>Issue</th>
<th>Implications</th>
<th>MDM Capabilities</th>
<th>Potential benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duplicate claim payments</td>
<td>● Unnecessary delays to claim processing</td>
<td>● Enterprise data hub capable of probabilistic matching and linking for providers and members</td>
<td>● Efficient and trustworthy member and provider relations</td>
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<td></td>
<td>● Revenue cycle inefficiency</td>
<td>● Members and provider data integration with claim processing applications</td>
<td>● Improved claim processing with respect to time, follow-ups and efficiency</td>
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<td>● Negative impact to member and provider experience</td>
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<td>Limited insight into members behavior</td>
<td>● Challenges in improving overall health of population despite implementing well-being programs</td>
<td>● Create composite view for member data and use for point-to-point integration</td>
<td>● Improved member wellness</td>
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<td>● Difficulties identifying cross sales opportunities</td>
<td>● Identify and mitigate trends that may impact bottom line</td>
<td>● Streamlined consumption of healthcare services</td>
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<td></td>
<td>● Inconsistent member experience across various platforms</td>
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<td></td>
<td>● Inability to understand members’ needs</td>
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<td>Missing member-provider relationships and hierarchies</td>
<td>● Incorrect claim processing and follow-ups</td>
<td>● Establish relationship and hierarchies between critical high-value data entities</td>
<td>● Improved member satisfaction</td>
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<td></td>
<td>● Inability to understand member-provider growing needs as a whole entity</td>
<td>● Use member-provider relation for Analytics</td>
<td>● Improved data quality for analytical usage</td>
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<td>● Challenges while generating strategic reports</td>
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<tr>
<td>Unidentified growth areas</td>
<td>● Challenges to add new members</td>
<td>● Use predictive analytics to uncover future trends</td>
<td>● Efficient and trustworthy member and provider relations</td>
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<td></td>
<td>● Difficulties launching effective marketing campaigns</td>
<td>● Leverage analytics based on members’ sentiments on social media</td>
<td>● Improved member satisfaction</td>
</tr>
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<td></td>
<td>● Difficulties identifying how to expand business with providers</td>
<td>● Identify emerging Medicare Advantage populations</td>
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Contact Us

**Bill Fera, MD**
Principal
Deloitte Consulting LLP
bfera@deloitte.com

**Scott Barnes**
Managing Director
Deloitte Consulting LLP
scbarnes@deloitte.com

**Khalid Mansour**
Managing Director
Deloitte Consulting LLP
kmansour@deloitte.com

**Tracy Ring**
Informatica Alliance Leader
Deloitte Consulting LLP
tring@deloitte.com
Deloitte.

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