

From data diffusion to insights with enterprise-wide data strategy

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Zahoor develops Optum end-to-end health care IT and business process solutions. In the age of optimization, Zahoor brings thought leadership, ideation, and market intelligence to product development. This helps clients transform the health care ecosystem and derive maximum value.

“It is the payer that holds the data that can individualize medicine. **When data sets are merged, it creates a context around the individual** and a patient narrative that providers can act upon.”

—Zahoor Elahi

CIOs consider enterprise data platforms to offer new value in health care

Payer organizations are at risk of being overtaken by tech-enabled newcomers that are skillfully deploying big data and analytics to improve customer experiences. If payers cannot unlock insights from the clinical, claims and financial data they manage to improve the business of care and member outcomes, their relevance will rapidly diminish. Right now, the payer CIO is uniquely positioned to digitally transform the organization from legacy to learning with cloud-enabled technology built expressly for health care.

In this article, Optum leaders Zahoor Elahi, senior vice president of Strategic Product Management, Sameer Siraj, vice president of Product Management, and Francois Charette, senior vice president of Product Engineering, examine the impact of enterprise-wide data strategy and answer key questions about the role an enterprise data platform plays in transforming the payer business.

Q1 **What capability do payers need to acquire that they don't have now?**

SAMEER: Today, data and the ability to analyze and apply it, is central to how all organizations compete and collaborate. Payer analytics deployed in the past have solved small data problems in the organization but have fallen short of focusing on the consumer. Profit drivers such as value-based contracts, quality metrics and consumer demand for value compel payers to make the data they manage work harder for their business and consumers. With OptumIQ, clinical, financial and operational data for the health care industry can be captured, contextualized and used effectively in practice. OptumIQ is a blend of curated data, leading analytics and applied expertise infused in Optum products and services.

ZAHOOR: There is something bigger happening in the health care ecosystem that is compelling better orchestration of health services and better utilization of health care data. The need to optimize care and satisfaction for consumers is focusing providers and payers on delivering a contextualized view of each patient/member—based on data drawn from multiple sources—to coordinate better care. There is an extreme need to approach health care as a team, to utilize claims and clinical data sets and prepare for emerging data sources, in order to improve performance, decrease costs and improve the customer experience.



SAMEER SIRAJ

Vice President
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Sameer leads product strategy and definition for the Health Care Technology as a Service portfolio at Optum. His team is responsible for developing digital domain products and services spanning infrastructure, applications and data for health care payers and providers.

“To remain competitive, **health plans need powerful business analytics** that continuously illuminate and individuate health care.”

—Sameer Siraj

Q2 What is the role of an enterprise data platform (EDP) in building a holistic approach to health care?

ZAHOOR: An enterprise data platform creates a “spot in the cloud” for claims and clinical data from which can be drawn a whole-person view of each member as well as prescriptive and predictive insights to guide actions in care delivery. The promise of precision medicine is the ability to contextualize data to recognize adverse events or deteriorating patient conditions before they occur. Precision medicine provides a clearer picture of patients’ underlying medical conditions, past treatments, gaps in care, medications prescribed and future care needs.

SAMEER: Data in health care is very fragmented today. Health plans need upwards of 50 business applications to support health care operations and members—each with associated data—and new data sources are coming online rapidly. However, most plans use a fraction of structured data and next to none of their unstructured data to make decisions.

When a payer can harness its full range of data, the stage is set for a single, 360-degree point of view on the health of each member—which is a global shift from retrospective views of discrete data sets to a cognitive or “continuously learning” point of view from which health plans can confidently predict outcomes, improve care quality, and lower costs.

FRANCOIS: An enterprise data platform is the solution that enables data sharing between applications and application services within the ecosystem.

Plans that move their data stores to a cloud platform, purpose-built for data sharing, analytics and reporting will have the capability to understand members and populations, and predict and prescribe the next right move in the health care continuum. Those who don’t will conduct business as usual and lose relevance in the continuum.

Q3 Coordination of care is a key business issue. How does the EDP support it?

ZAHOOR: In health care, where data is abundant, providers and patients are often frustrated by gaps in patient data and the convoluted path data has to travel to reach point of care. In the age of optimization, an enterprise data platform is the key to unlocking data silos within the payer organization and the broader health system, to enable interoperability and deliver the right information at the right time and place.

It is the payer who holds the claims history that can propel individualized medicine and improve member health: claims contain the disease codes, days at facility, pharmacy, and specialty data—information that is as important as clinical data and more important than simple transactional data. When these data sets are merged, data can be utilized to create context around the individual, a record of health, and evidence-based predictions that providers can act upon.



FRANCOIS CHARETTE

Senior Vice President
Product Engineering

Francois has more than 20 years' experience helping organizations align business and customer needs with technology innovation and change management. His team partners with leaders and sales teams across Optum to define and execute technology strategy to meet current and future needs in the market.

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—Francois Charette

SAMEER: With big data analytics (such as machine learning) applied to aggregated and enriched data sets—including longitudinal patient history, demographics, claims, facility and quality data—a payer is able to accurately predict, for example, the right facility for an ER patient's follow up care, the types of specialized care and equipment that may be required, even the likelihood of chronic disease. Payers could also set accurate payment expectations and predict whether a patient may need financial assistance. Enterprise-wide data strategy goes to the root of precision medicine and sets the stage for delivering a more consumer-focused experience.

Q4 What are the key attributes the CIO should seek in a partner to derive the most value from their data?

SAMEER: While much of what happens on an enterprise data platform is automated, it still needs health care experts to build it. OptumIQ harnesses the wisdom of more than 26,000 experts to take data and build a common language, innovate with a purpose and guide action for success. Data scientists with health care domain expertise understand how data will be used, what insights you need and the metrics of success, while health care subject matter experts understand the granularity and associative relationships of data in their disciplines. Choose a partner that can pair data and health care experts upfront to lay a solid and evolutionary foundation for years to come.

In selecting a platform to fulfill the enterprise data strategy, choose a consumption-based cloud model where storage and analytics can be utilized and paid for as needed, and one that supports efficiency, scalability and data security because those are key to short- and long-term cost reduction. EDP technology should support machine learning and AI, agile response to new data sources, and the ability to “sandbox” applications as a way to test analytical scenarios.

ZAHOOR: Maximizing the value of data goes far beyond putting all your data on a platform. Creating new discovery from the data to inform prescriptive and predictive solutions for clinicians and members requires data scientists that understand the clinical world we live in. [If your consulting partner also provides support for medical officers charged with operationalizing insights to positively affect the health of a population and the cost of care — you'll have truly maximized the value data.]

FRANCOIS: Seek a vendor who offers public cloud deployment, because in terms of security, an EDP in a public cloud makes them a much smaller target for breach. Trying to find the front door of a health plan in a large public cloud is almost impossible. In addition, the investment in security levels for public clouds are exponentially higher than what organizations are able to afford to protect on-premises deployments. Secondly, because you will be leveraging the EDP as a platform to bring in any patient data going forward, you'll want a cloud partner who can offer applications and solutions that can be simply provisioned by the EDP without the necessity of point-to-point integration.



“It’s estimated that **1.2 billion clinical documents** are produced in the U.S. each year, and about **60 percent are “trapped” in an unstructured format.**”¹

Q5 How does the CIO justify the cost of an EDP?

FRANCOIS: First of all, the cost of entry is relatively low: storage and computing are delivered in a consumption-based model, eliminating infrastructure maintenance and capex challenges. With an enterprise data platform built in the public cloud, the data is liberated and can be turned on and off as needed.

The cost of a data platform will be quickly recaptured as legacy warehouses and redundant operations are decommissioned, medical costs are decreased and gaps in the care continuum are identified and addressed. Big data tools such as machine learning and artificial intelligence bring dark data to light where it can be used to make transformative changes in the care continuum.

Finally, because the payer business is vulnerable to disruption by tech-enabled newcomers with viable technologies for improving the health care system, investing in EDP is critical to staying competitive and profitable. What’s happening is happening fast and you’ll want to have cloud savvy partners at your side and future-proofed technology in play before the big data companies build a preponderance of health care IP.

Conclusion

Until recently, it has been difficult to share, exchange and analyze data from disparate systems. OptumIQ represents a unique combination of data, analytics and health care expertise to help clients measurably improve outcomes, better manage costs and improve analytic building blocks to reflect industry best practices. With an enterprise data strategy and a platform to support it, health plan organizations can build a coherent, interoperable, single source of truth, connect the dots in the patient narrative, understand the health of their business, and move quickly to adapt in a volatile marketplace.

Learn more about the CIO’s role in modernization, visit optum.com/CIO

1. Datamark. Unstructured data in electronic health record systems: Challenges and solutions. Oct. 2013. insights.datamark.net/white-papers/unstructured-data-in-electronic-health-record-systems-challenges-and-solutions. Accessed March 2018.