

Healthcare Analytics for Payers: How to Thrive Through Shifting Financial Risk

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As the healthcare industry continues to transition to value-based care (VBC) models, financial risk is shifting away from the payers and toward the providers. Payers are looking to alternate payment models (APMs) and other strategies to drive more value to their members.

To succeed in an environment of shared risk, payers must extend their [data](#), [analytics](#), and risk management expertise beyond their own walls. This article explains this extended approach to healthcare payer analytics and the value of developing an analytics roadmap for payers in the context of managing risk.

Making Data an Imperative

The first step in building an analytics strategy is to accept as guiding principle the words of W. Edwards Deming, “Without data you’re just a person with an opinion,” and make data an [organizational](#) imperative. The second step is to build a roadmap that leads to a data-driven culture. When payer organizations arrive at the data-driven destination, teams use analytics to identify opportunities and implement solutions to support new strategies, (e.g. enabling their providers to succeed in shared risk). Data drives decisions and actions.

By following an analytics roadmap, the payer organization will mature its use and understanding of data from traditional descriptive reporting to advanced predictive analytics. This transformation augments human intelligence, and providers and members can directly leverage its benefits:

- **Reporting:** The process of organizing data into informational summaries to monitor or describe how specific areas of a business are performing.
- **Analytics:** The process of iteratively exploring aggregated data to discover patterns and extract meaningful insights and building predictive models that augment human intelligence.

A Healthcare Payer Analytics Strategy: Build a Roadmap to Manage Risk

A roadmap will help the payer navigate their own way through a minefield of potential risks associated with these challenges:

- Recruiting and retaining high-quality providers in a highly competitive market.
- Managing an increasing number of high-risk/high-cost members with limited resources.
- Efficiently reacting to seemingly endless federal and state legislative and payment change.
- Effectively controlling the rising costs of healthcare services and pharmaceuticals.

The well navigated data-driven journey through the minefield of risks will produce meaningful benefits, including the following six outcomes:

- 1 Improving satisfaction among provider networks by providing data and analytics services.
- 2 Increasing the ability to respond to market disruptors by building an agile data operating system.
- 3 Reducing staff turnover by replacing repetitive manual reporting with challenging analytics.
- 4 Improving investment by demonstrating and defending success of a program or strategy.
- 5 Demonstrating and communicating effective stewardship of entrusted community resources.
- 6 Expanding value to members through targeted programs, information, and outreach.

Leveraging Best Practice: The Healthcare Analytics Adoption Model

In the journey towards a data-driven culture, payers may partner with an analytics vendor or go it alone. Either way, an organization should use the [Healthcare Analytics Adoption Model](#) (Figure 1) as the context for a tailored analytics roadmap that progresses from a pre-enterprise data operating system to democratized data and, finally, to a data-driven cultures.

The Healthcare Analytics Adoption Model

DOS and products are designed to guide you to higher levels of digital maturity

Improve Health	Level 9	Direct-to-Consumer Analytics & Artificial Intelligence	Putting member data, analytics, and AI in member's hands so they can own more of their health and healthcare decisions.
	Level 8	Personalized Medicine & Prescriptive Analytics	Tailoring member care based on population outcomes and genetic data. Fee-for-quality rewards health maintenance.
	Level 7	Clinical Risk Intervention & Predictive Analytics	Organizational processes for intervention are supported with predictive risk models. Fee-for-quality includes fixed per capita payment.
Reduce Variation	Level 6	Population Health Management & Suggestive Analytics	Tailoring member wellness based upon population metrics. Fee-for-quality includes bundled per case payment.
	Level 5	Waste & Care Variability Reduction	Reducing variability in care processes. Focusing on internal optimization and waste reduction.
Improve Efficiency	Level 4	Automated External Reporting	Efficient, consistent production of reports & adaptability to changing requirements.
	Level 3	Automated Internal Reporting	Efficient, consistent production of reports & widespread availability in the organization.
	Level 2	Standardized Vocabulary & Member Registries	Relating and organizing the core data content.
	Level 1	Enterprise Data Operating System	Collecting and integrating the core data content.
	Level 0	Fragmented Point Solutions	Inefficient, inconsistent versions of the truth. Cumbersome internal and external reporting.

Figure 1: The payer journey towards a data-driven culture

The Pre-Enterprise Data Operating System Culture

The pre-enterprise data operating system culture of spreadsheet silos, or pockets of analysis, generates conflicting reports and conflicting interpretations of data. This encourages battles over data ownership, long report request queues for consumers, and analysts spending most of their time hunting for and gathering data. The focus is on getting the right data and getting the data right (i.e., data completeness and the data accuracy).

The Democratized Data Culture

The democratized data culture automates routine reporting and leverages a single source of curated data for ad hoc analysis. **Governance** teams spend significant time standardizing definitions and prioritizing data acquisition. The organization begins to trust the data, and report queues are significantly reduced with the availability of self-service applications and analyst-generated member registries.

The Data-Driven Culture

When payer organizations arrive at the data-driven destination, they use analytics to identify opportunities and implement solutions to support new strategies (e.g., enabling their providers to succeed in shared risk). Data drives decisions and actions. The focus is on leveraging suggestive and predictive analytics to augment the move toward VBC and population health management.

As organizations mature in the use of data, they move from levels zero to nine (from fragmented point solutions to direct-to-consumer analytics and artificial intelligence) and progress through three key improvement categories:

- 1 Improving efficiency.
- 2 Reducing variation.
- 3 Improving health.

Interestingly, as the organization matures its analytics adoption, it can reallocate human resources from lower levels, where they're spending time on automatable tasks, to higher levels of analytic tasks. This allows its workforce to better apply its expertise (i.e., work at the top of their licenses), which reduces turnover.

Assess the Current Capabilities

Before adopting and executing an analytics roadmap, a payer organization should complete an analytics readiness assessment. The assessment identifies where an organization falls along the analytics adoption model—where it stands compared to industry standards—and ensures organizational expectations are in line with organizational capabilities.

An analytics partner should provide an analytics readiness assessment. Health Catalyst, for example, offers an analytics readiness assessment with three components:

1. **Organization** (readiness, demand, and structure): This component evaluates an organization's ability to use data to support its business objectives in five major areas (Figure 2):

- Leadership culture and governance.
- Financial alignment.
- Analytics.
- Best Practices.
- Adoption.



Figure 2

An organizational self-assessment identifies the detail behind the scores with key data consumers and/or consumer groups; this data informs one-on-one interviews focused on the above areas.

2. **Technology** (tools, data sources, and workflows): This component evaluates strength and opportunities to leverage data and analytics to meet business objectives around technology, analytics, reporting, and analytics work streams using best practice models as comparative guides. Each step in the acquire, analyze, organize, standardize, and deliver process is mapped and compared to industry best practice.

3. **Staff skills** (technical, analytics, and contextual): This component establishes a baseline to help identify areas of staff skills around eight areas of expertise within three contexts (Figure 3) and across the continuum of analytics complexity (e.g., determining the correct skills sets for analytics performance, given current and anticipated future analysis demands):

- 1 Health care data and operations.
- 2 Analysis.
- 3 Data query.
- 4 Visualization.
- 5 Data management.
- 6 Process improvement.
- 7 Data modeling.
- 8 Statistical methods.

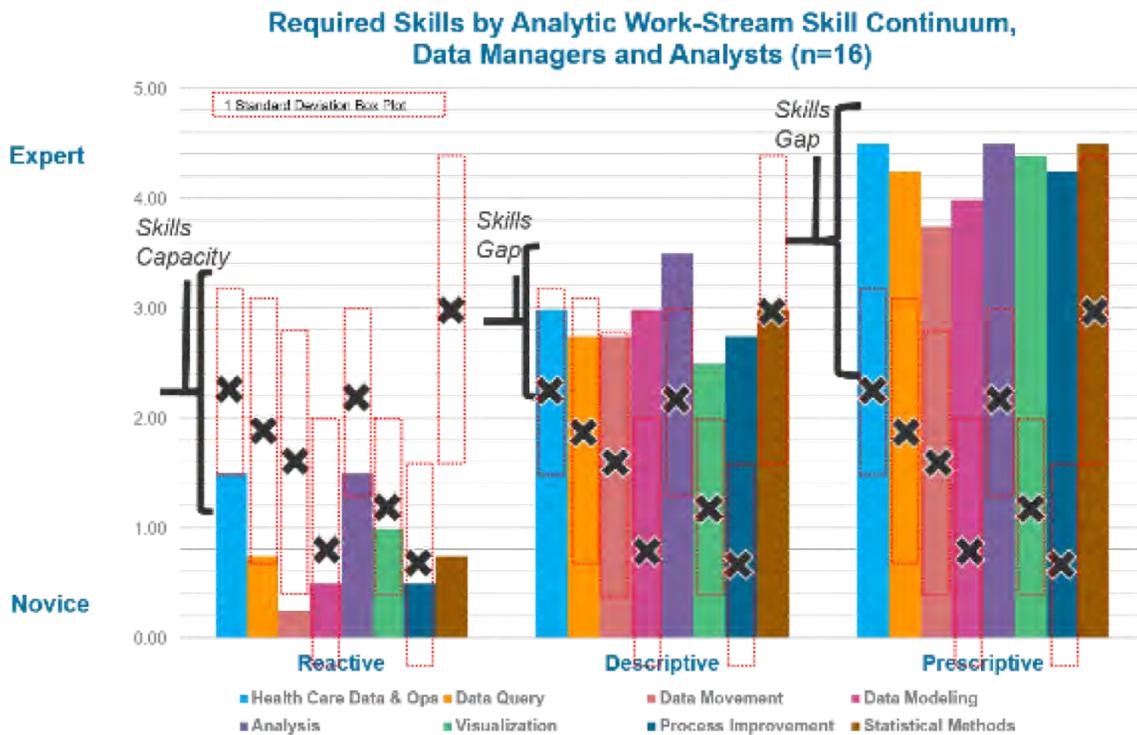


Figure 3: Required skills

Tailor Your Route: Prioritize Waypoints and Allocate Resources

The results of the analytics readiness assessment (Figure 4) give the organization a readiness score (low, medium, or high), recommendations for improving analytics readiness, and the starting point for a customized analytics roadmap for that organization in the context of the Healthcare Analytics Adoption Model.

Analytics Adoption – Current State

Readiness Assessment identifies starting point for tailoring your analytics roadmap

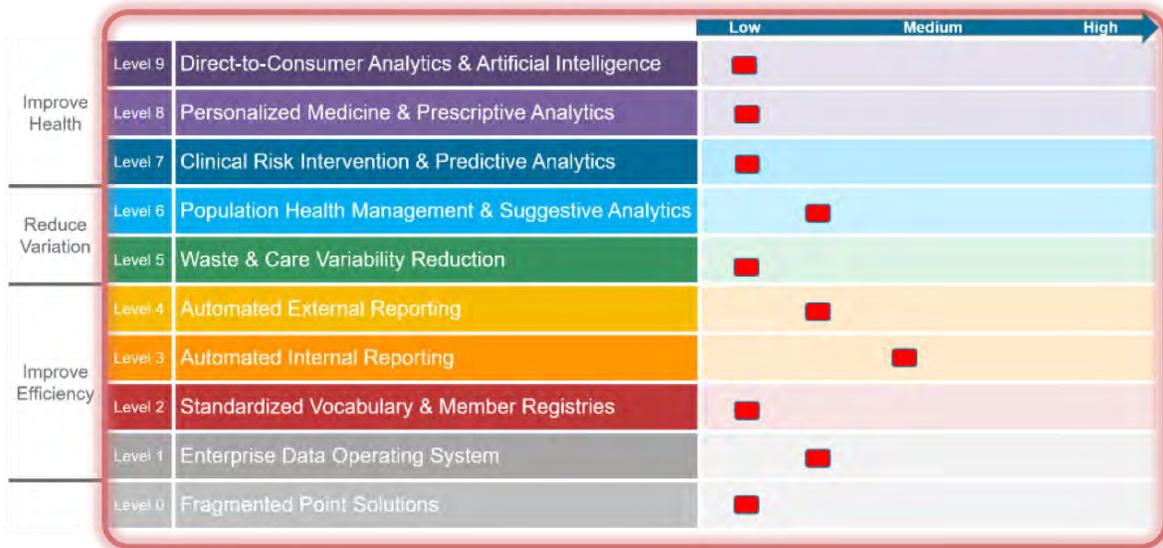


Figure 4: The analytics readiness assessment results—a customized roadmap

The readiness assessment also generates a list of short-term and long-term recommendations in three categories to tailor the route on an organization’s analytics roadmap:

Category	Sample Recommendations (suggested waypoints to build into a roadmap)
People	Organize for analytics—consider a best practice hub and scope model. Educate analysts on data management and data architecture.
Process	Expand data access and data governance simultaneously. Evaluate/adapt the Healthcare Analytics Adoption Model for the individual analytics journey.
Technology	Compare current the data warehouse stack to a best practice data operating system. Eliminate multiple overlapping and outdated data visualization tools.

Analytics Readiness Brings Immediate and Escalating Benefits

The good news is that benefits begin accruing as soon as the organization executes the readiness assessment. Value builds through each phase of analytics maturity:

1. Reduce expense/automation: To succeed, and survive, in a value-based environment, payers must continue to mature their analytic capabilities. However, they must make this transition while maintaining core services. Automating routine internal and external reporting services makes them more efficient while less resource intensive.

3. Increase revenue/innovation: As an analytics environment lessens reporting burdens, it frees up payer resources to bring on new programs (e.g., moving towards VBC). With greater analytics capability, payers can see patterns and relationships in the data to identify and implement innovative opportunities for improvement.

4. Increase skills/staff retention: People with analytics skills have many competitive career opportunities today. For payer organizations to retain a solid workforce, they must offer their staff a clear analytics vision, analytics tools, and analytics techniques for solving healthcare challenges that are on par with other industries.

Analytics Are a Growing Payer Imperative

The analytics readiness assessment aims to help organizations determine if their analytics capacity is adequate and appropriate for succeeding in tomorrow's healthcare environment. VBC models will mature as the inevitable context for addressing the rising costs of healthcare, and payers that mature their analytics capabilities in sync with the changes in the market will thrive. 📈

About the Author



Matt Denison joined Health Catalyst in March 2017 as Vice President of Payer Solutions and is responsible for defining and growing the catalog of Health Catalyst payer solutions. Previously Matt was the owner of Collaborative Data Solutions that focused on helping businesses leverage their knowledge and tools.

Mr. Denison has a 35+ year track record of catalyzing success in health information technology; including managing projects, mentoring people and managing growth. Matt's focus has been on transforming data into applied and retained knowledge. His hands-on experience with providers, payers and healthcare software development organizations including Aetna, Aldera/Evolent, QCSI/TriZetto/Cognizant, SMS/Cerner, and Samaritan Health/Banner Health has been in various capacities including trusted advisor, consultant, senior director, solutions manager and platform architect.

Mr. Denison earned a Bachelor of Science degree in Computer Information Systems from Arizona State University –W.P. Carey School of Business in 1981.