Value-Based Care Maturity Model

Population Health and Value-Based Care continue to swirl through nearly every healthcare conversation. Leaders across all aspects of the healthcare provider and payer industry are looking for strategies that will reduce costs and improve quality, in hopes of improving the bottom line and the viability of the organization within the community.

Atos has created a Value-Based Care Maturity Model to help guide our clients in becoming high-performing organizations during this time of digital disruption and industry evolution.

Our model connects once-isolated healthcare stakeholders, supporting interoperability in a consumer-centric manner that promotes care quality and wellness. It helps to align incentives for employers, payers, providers, community services and consumers while supporting innovative business models and leveraging digital technologies and data to improve care quality and control costs across the continuum of care.

Employers

Payers

Community Services

Providers

Value-Based Care

The healthcare industry is facing an inevitable progression in the ability to successfully manage risk vs. value of offerings. As an example, provider organizations could take a thoughtful approach to moving through the progression illustrated in Diagram 1, which shows the possible progression of successfully managing financial risk in an evolving market. A provider organization could progress through the journey in a blended manner, taking on various levels of risk depending on specific contracts and/or business models, and consider their ability to effectively manage costs and control quality. In this example, the organization expands its business model to offer a provider-sponsored health plan, capturing revenue on both sides of the consumer experience and closing the loop on cost control, models of care, and consumer engagement.

Financial Risk

Fee-for-Service

Patient Centered Medical Home

Bundled Payment

Shared Savings

Shared Risk

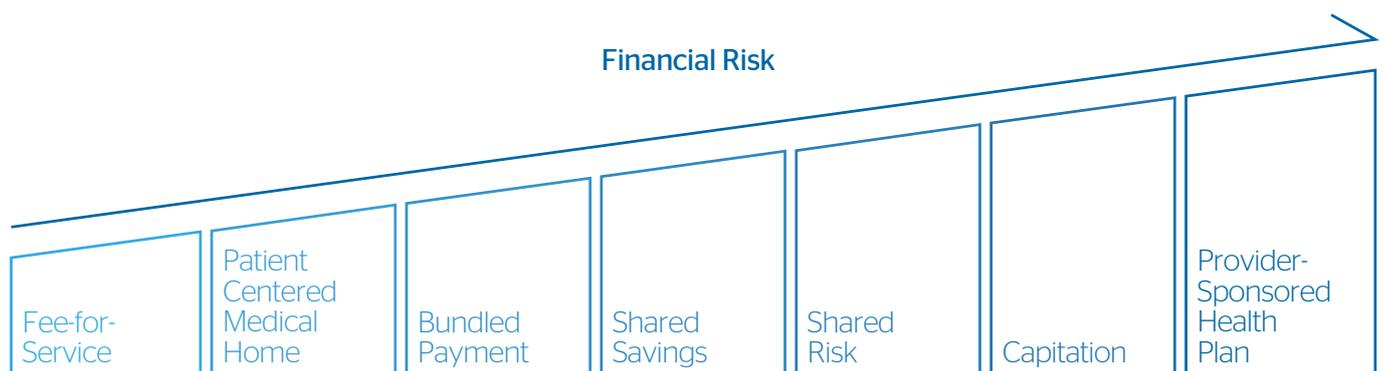Capitation

Provider-Sponsored Health Plan

Diagram 1

Certainly, payer organizations and other healthcare market participants, even those new to the healthcare market, will consider different paths to effectively manage risk and offer value. However, the message and goal remain the same — control cost, improve quality, engage the consumer.

Population Health Management

Concurrent to managing financial risk, healthcare organizations of all types must also consider how quality of care progresses with the use of healthcare data from electronic medical records, enrollment, claims, financial, pharmaceutical, and payer data, in addition to consumer data and potentially even consumer IoT data.

| Records of Care | Risk Stratification | Predictive | Prescriptive | Personalized |

Device and IoT Data ›
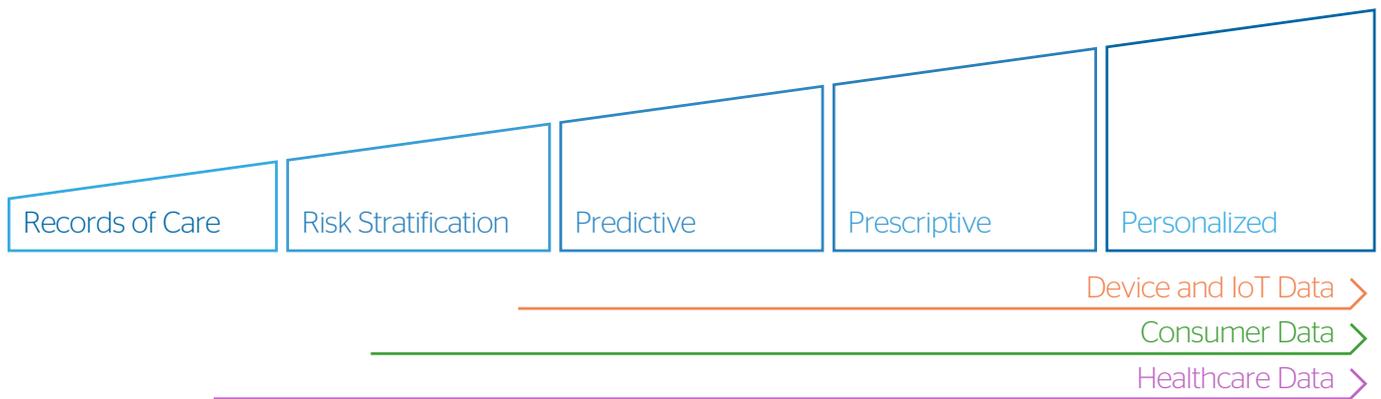Consumer Data ›
Healthcare Data ›

Diagram 2

Diagram 2 illustrates the relationship between care and data as organizations advance to more meaningful decision-making about care quality and cost, essentially managing the health of a population.

Organizations have invested in technologies and tools to collect data and have records of care. The time has come to use the data in meaningful ways to understand population risks and develop payment and care models based on effectively managing consumer or patient risk.

Take, for example, an elderly woman whose history of progressive congestive heart failure and smoking poses a high risk of unnecessary hospitalization if not managed effectively. Using risk stratification, if this patient lives with a supportive caregiver (who could help her in her smoking cessation program) and has access to healthy foods, interventions might take on the form of virtual care management and remote vital sign monitoring.

But this patient lives alone and is socially isolated (a condition shown to have the same impact as smoking a pack of cigarettes per day). For her, a virtual intervention may not be as effective as an investment in a home-based nurse to check on vital signs, food, and smoking cessation as well as to offer a form of social interaction. Essentially this example demonstrates different interventions for different levels of risk based not only on medical data but also on social determinants of health.

Increasingly data-literate organizations apply data to predict complicating events, such as unnecessary emergency department utilization when an acute episode could be prevented based on changes to IoT data.

Further maturation of data utilization would find organizations applying artificial intelligence and possibly machine learning to not only predict events and outcomes but also prescribe interventions based on historical data.

We are beginning to see this work in the intersection of genomics and cancer care, and the opportunities are endless.

Possibilities exist exist to leverage all types of data — from nutrition to pharmaceutical to environmental and beyond — to create truly personalized, precise approaches to understanding and impacting health and wellness.

Key Themes from Industry Experts

In the Atos Fall 2018 Expert Panel on Population Health and Value-Based Care, provider industry leaders discussed the arduous work that is required to make even small amounts of progress toward effectively managing risk as well as leveraging data to improve healthcare quality and reduce costs.

To summarize the comments of the panel, key points for organizations to consider as highest priority in establishing a successful population health and value-based care strategy are as follows:

- Clearly defined leadership strategy and commitment are imperative.
- Most organizations are still in the early stages of defining their value-based care processes.

  a. They are working to better understand consumer engagement and potential activities that influence consumers.
  b. They are exploring new ways of leveraging technologies to engage the consumer and provide new models of care.

- The lack of interoperability makes data aggregation difficult and the application of meaningful analytics even more challenging.

Atos Value-Based Care Maturity Model

Consumer-Driven Care — Leadership Strategy and Commitment, Data Aggregation, Data Analytics and Business Intelligence, Models of Care, Consumer Engagement
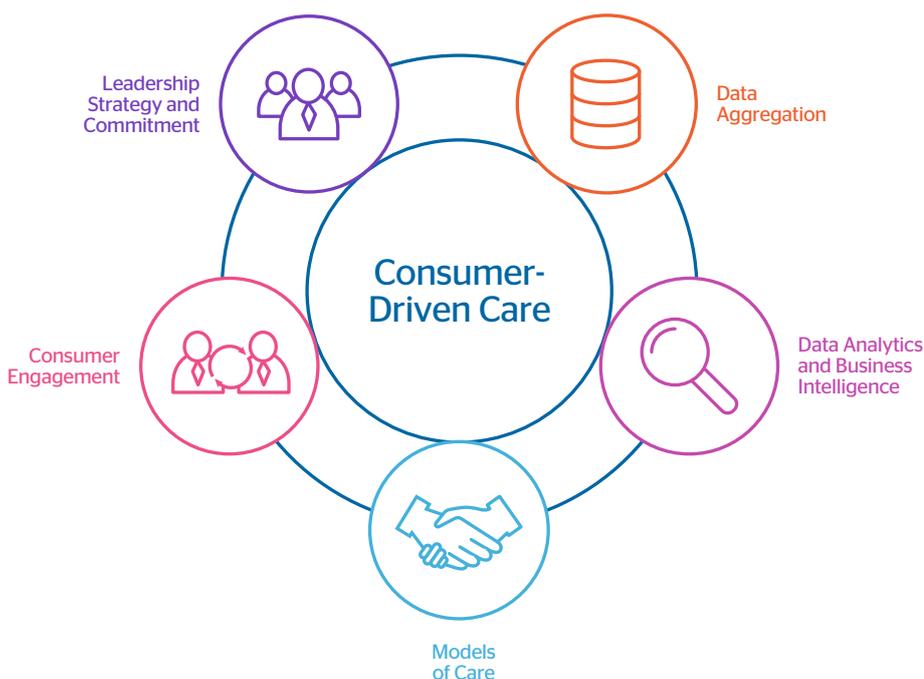
Atos has developed a maturity model to assist organizations in understanding their progress in successfully addressing the challenges of population health management and value-based care. Organizations that progress through each domain in a thoughtful and aligned manner will gain the organizational capabilities to leverage digital technologies and data to succeed in value-based care. The value-based care domains establish a critical foundation to assess progress. Organizations can then begin to evaluate their maturity within each domain.

This type of insight allows healthcare leaders to think more strategically about where they invest and how they prioritize the many competing initiatives that impact value-based care. This strategic view often results in new operating models and elucidates new ideas, innovative approaches, and ultimately better outcomes for consumers — inside and outside of the healthcare system.

Leadership Strategy and Commitment

Define, refine and commit to a strategy that allows the organization to realize the benefits of value-based care. Leadership engagement is imperative and accelerates or limits the amount of progress in every domain.

Organizational leadership structures must move in an aligned and collaborative manner to drive population health strategies, align payment models for organizational financial success, drive data literacy and utilization across the organization, engage patients in a consumer-centric manner, and promote digital business models and innovation. The evolution will require:

- Leadership discipline and creativity with a willingness to change.
- Commitment to leveraging technologies while enabling caregivers, providers and operational team members to succeed in a changing world.
- Openness to the value that data brings as technologies mature and can support advanced analytics in the form of artificial intelligence and machine learning throughout the organization.

Data Aggregation

Compile disparate clinical, financial, social, supply chain, administrative, public, and consumer data to support clinical and business decisions.

An abundance of data is the result of years of investment in electronic medical records, claims systems, and operational support systems. The value of the investment comes in the form of being able to bring the data together to ask questions and gain insight that will lead to better, more timely decisions that improve care quality, reduce costs, and enable effective population health management.

This dimension poses many challenges to an organization; when compiling data within an organization and/or sharing data with outside entities, data security and privacy must be maintained. Data is often isolated and unshared. The main challenge is the lack of interoperability within an organization and between outside entities.

Organizations must plan for technology investments that move to a future state that supports the data analytics strategy of the organization as well as the needs of evolving care and reimbursement models. Healthcare leaders will be challenged to understand all data associated with the patient or consumer, including the impact of social and physical determinants of health as well as the opportunities afforded by evolving fields, such as genomics, on disease detection, prevention and management. Leaders must be ready to respond to changing consumer demands on traditional healthcare as the IoT and data transparency continue to infiltrate every aspect of our lives.

Data Analytics and Business Intelligence

Effectively and efficiently utilize aggregated data to make informed clinical and business decisions that improve quality, reduce costs, and offer consumer value.

As data is aggregated and available for analysis and utilization at the point-of-need, analytics and business intelligence technologies and strategies supported by an enabled and informed end user will drive organizational success.

Healthcare provider organizations must evaluate analytics and reporting investments to date to clearly define current-state utilization and develop a future-state roadmap that enables providers, clinicians and operational team members to make the best decisions, simulate or model scenarios to understand possible outcomes, and provide for an optimal experience for all involved.

Organizational leaders must commit to moving from traditional retrospective reporting, to strategic advanced and predictive analytics to transformational prescriptive and even precision capabilities if they are going to remain successful business entities.

Models of Care

Develop care delivery models based on collaboration and communication, leveraging digital technologies as appropriate, among all the healthcare providers, payers, consumers, and community resources that contribute to an individual's health and well-being. These models of care could include traditional provider-patient interfaces. However, digital opportunities to leverage virtual care, remote patient monitoring, telehealth/telemedicine, and other evolving approaches abound.

As organizations manage greater amounts of financial risk, they will be required to fully understand their data to develop models of care that leverage technology, as appropriate, and understand the impact of care on quality and cost.

Quality is defined by the Institute of Medicine[1] as:

- Safe: Avoiding harm to patients from the care that is intended to help them.
- Timely: Reducing waits and sometimes harmful delays for both those who receive and those who give care.
- Effective: Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and misuse, respectively).
- Efficient: Avoiding waste, including waste of equipment, supplies, ideas, and energy.
- Equitable: Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.
- Patient-centered: Providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.

With available data and analytics capabilities, organizations can develop care approaches based on a patient's level of risk. The types of roles and interactions are evolving between providers, care managers, advanced practitioners, care coordinators and even community resources. Innovative uses of technology, such as remote patient monitoring and telemedicine, are extending care to patients' homes and underserved communities. Data-driven, evidence-based protocols are improving quality of life for high-risk and critically ill patients. The healthcare industry has an opportunity to incorporate social and physical determinants of health as well as patient-provided IoT data and even genomics into medical and clinical protocols from diagnosis through treatment.

Consumer Engagement

Connect and engage external stakeholders (consumers) and organizations (companies or brands) through various channels of correspondence. This connection can be a reaction, interaction, effect or overall customer experience taking place online and offline.

While consumerism has transformed most industries, healthcare falls short due to the complex relationships — including security and privacy implications — of individual consumers with separate provider organizations, payer organizations, employee wellness programs, community wellness resources, and even other consumers.

The difference between traditional priorities focused on patient satisfaction, and innovative consumer engagement strategies based on trust, understanding and appreciation of the impact of consumer choice and engagement is profound. The availability of medical data to consumers and the entry of new stakeholders in the healthcare space will push healthcare organizations to rethink their consumer engagement and experience strategies not only within an organization but also across partner organizations. Consumers expect a seamless experience, one that is not impacted by an organization's departmental divisions or business partner relationships.

In addition, consumer preferences and desires related to making personal healthcare decisions based on available data create answers to the following examples of consumer questions:

- How much will this cost?
- Where can I get the lowest cost and best outcome?
- Who has the best clinical outcomes?
- What are my options on where and how to receive care?
- When can I receive care that works best with my schedule?
- What alternatives are available to me for diagnosis and/or treatment?

Technologies such as mobile applications, telemedicine and telehealth, and IoT device integration will drive new consumer experiences. Data will inform how the impacts of engaged consumer technologies on care quality, cost, and consumer loyalty are understood.

While healthcare provider entities have marketing departments, the more progressive organizations now consider marketing team members as strategic leaders in the consumer engagement space. Leveraging the value of marketing data in understanding market trends and consumer loyalty serves to inform medical and clinical leaders in making decisions related to models of care and evolving business models. High-performing organizations in the consumer engagement space remain to be seen, as organizations align the previous value-based care dimensions around the consumer, support the aggregation and utilization of the ever-expanding abundance of data, implement the infrastructure and technologies that ensure data privacy and security, and develop evolving, personalized models of care.

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[1] Institute of Medicine (IOM). Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, D.C: National Academy Press; 2001.

Healthcare organizations face three shockwaves of digital transformation.

- **Shockwave 1: Rationalize, optimize and streamline existing systems,** notably through real-time clinical delivery and electronic health records, in addition to the integration of financial, revenue cycle, and clinical data to fully understand care quality and costs that impact overall revenue and financial viability of the organization.

- **Shockwave 2: Interconnect and increase collaboration between all ecosystem players**, notably through collaboration and digital solutions, and deeply analyze and optimize treatments with new big data and cognitive technologies for population health (get early detection of epidemics, discover new risk factors, uncover new treatments, etc). This is also at the heart of the research Atos participates in.

- **Shockwave 3: Leverage the latest technological advances,** notably in artificial intelligence, machine learning and genomics analysis as well as high-performance computing to enable precision medicine. This is probably the most striking advance in healthcare on the horizon.

It will be no small feat for organizations to navigate these shockwaves, respond to ongoing payment reform and marketplace evolution, and address a changing consumer population. A disciplined, aligned leadership commitment and strategy that leverages digital technologies and data to manage population health, improve quality, control cost and engage the consumer will transform the healthcare industry from systems of reactive, disconnected care to a global system for health and wellness supporting individuals throughout their lives. Atos offers technologies, strategic consulting, staff augmentation, managed services and innovative simulation-based training/education services to support organizations navigating the rapidly evolving healthcare landscape.

Atos Digital Transformation Factory

Real-Time Clinical Delivery and EHR
Optimize and streamline

Collaboration, Tele-Health and Population Health
Interconnect and orchestrate

Precision Medicine
Ultimately personalize

From systems of reactive care — **to a system for proactive care**

About Atos

Atos is a global leader in digital transformation with 120,000 employees in 73 countries and annual revenue of € 13 billion.

European number one in Cloud, Cybersecurity and High-Performance Computing, the Group provides end-to-end Orchestrated Hybrid Cloud, Big Data, Business Applications and Digital Workplace solutions through its Digital Transformation Factory, as well as transactional services through Worldline, the European leader in the payment industry. With its cutting-edge technologies and industry knowledge, Atos supports the digital transformation of its clients across all business sectors. The Group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and operates under the brands Atos, Atos Syntel, Unify and Worldline. Atos is listed on the CAC40 Paris stock index.

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Let's start a discussion together

About Atos Digital Health Solutions

Atos Digital Health Solutions helps healthcare organizations clarify business objectives while pursuing safer, more effective healthcare that manages costs and engagement across the care continuum. Our leadership team, consultants, and certified project and program managers bring years of practical and operational hospital experience to each engagement. Together, we'll work closely with you to deliver meaningful outcomes that support your organization's goals. Our team works shoulder-to-shoulder with your staff, sharing what we know openly. The knowledge transfer throughout the process improves skills and expertise among your team as well as ours. We support a full spectrum of products and services across the healthcare enterprise including Population Health, Value-Based Care, Security and Enterprise Business Strategy Advisory Services, Revenue Cycle Expertise, Adoption and Simulation Programs, ERP and Workforce Management, Go-Live Solutions, EHR Application Expertise, as well as Legacy and Technical Expertise. Atos is a proud sponsor of Healthcare Scene.

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