

# Generating Value from Big Data and Digital Health Investments

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Healthcare organizations are making substantial investments in digital health technologies and analytics aimed at improving coordination, delivering optimized care at a reduced cost, and finding new and innovative ways to engage, educate, and retain consumers.

**D**eveloping an effective, efficient digitally empowered care delivery system from which to identify and drive profitability under value-based contracts remains of utmost importance. However, developing population health capabilities, especially a big data framework to support strategic initiatives, continues to be a struggle for leadership as they consider current and future investments, return on these investments, and revenue implications from shifts in utilization.

## Big Data and Digital Health Is as Good as the Value It Delivers

True success of any investment in digital health technology lies in the ability of analytics to measure results and begin to predict additional outcomes based on certain capabilities, actions, and activities. Similarly, there is no immediate benefit to big data analytics unless it produces actionable insights. Insights translate to tangible knowledge if they are executed upon under well-defined care models and care management services that leverage best practices, methodologies, organizational structures, and embedded workflows.

## Build a Value-Based Framework to Measure Effectiveness and ROI

High-performing organizations are creating analytics-based value models that enable them to quantify risk, evaluate impacts to changes in utilization, and predict future trends and outcomes that require intervention. These models also allow organizations to measure, track, and predict return on investments (ROIs) in population health capabilities including digital health technology and staffing resources associated with programs aimed at improving health outcomes.

Healthcare organizations that have successfully developed a value-based framework have incorporated best practices that focus on building a strong information management framework, establishing

value-driven needs and requirements, and creating actionable information that drives knowledge enablement and strategic success. Some of these best practices are listed below.

### First Things First: Begin with the End in Mind

The key to establishing a value framework that drives decision making and actions is to begin with the end in mind and develop a clear understanding of your goals. Questions for consideration include:

- What key objectives do you want to achieve from your digital health initiatives?
- Are there clearly defined use cases driving technology implementation and alignment?
- Is your organization aiming to capture market share by offering competitive services to consumers?
- Do you need to leverage data-driven insights to improve your agility to react quickly to changes in the market?
- How will you predict performance outcomes associated with high-risk patients and the associated resources and care management protocols?

Succinctly outlining end goals guides what problems need to be solved and helps conceptualize a knowledge framework that will assist with decision making.

### Place a Premium on Data Governance

It is important to identify early on key consumers of digital health and big data initiatives within your organization. Understanding the information needs of users, their level of data literacy, and the ability to act on information determines the pace at which your organization can successfully adopt these technologies and realize a tangible value against your investment.

Building and leveraging digital health platforms and managing the new “data

## Key Board Takeaways

Building a value-based framework for digital health and big data initiatives allows healthcare organizations to optimally invest resources and dollars towards programs that generate outcomes and value in alignment with strategic goals. Best practices include:

- Begin with the end in mind and develop a clear understanding of goals to accomplish.
- Set up a multidisciplinary and operations-led data governance framework that serves as a mechanism to establish data integrity, alignment of technology performance criteria, and measurement of value.
- Build a value-based information blueprint that vendor partners must deliver against.
- Think big, start small, and go fast—continually build for scalability and sustainability.

culture” is what harnesses the power of information. Data governance structures focused on master data management is critical to realizing your information potential. Important elements to consider in establishing effective data governance include:

- Clearly defined objectives that begin the shift to an aligned, data-driven organization
- Guidelines for managing the quality of data being leveraged across the continuum
- A roadmap to incrementally building data literacy within consumers of digital health and analytics
- Keeping the board informed regarding information management and digital strategy, as well as cybersecurity and compliance plans

Multidisciplinary data governance ensures that investments in big data and digital health initiatives support strategic initiatives. It becomes an important mechanism in establishing data integrity, alignment of technology platform criteria, and measurement of value.

### **Build a Value-Based Information Blueprint to Guide Delivery and Implementation**

With clearly defined strategic initiatives and targeted outcomes and capabilities in mind, building an information management framework for the organization provides the blueprint to achieving results. The framework helps identify what *type* of data is required from varied sources (clinical, financial, sociodemographic, community, retail, etc.), what *form* the data needs to take to appropriately harmonize (structured, unstructured, text, multimedia, data from devices, etc.), and at what *frequency* the data needs to be submitted and updated (real time/dynamic or retrospective). This framework is a valuable tool in understanding the pace at which the organization can build capabilities and create actionable reports. It helps identify

value levers (cost of revenue) that can be leveraged to achieve desired outcomes.

### **Think Big, Start Small, and Go Fast: Build for Scalability and Sustainability**

Often digital health and big data initiatives become too complex too fast, and they lack the ability to produce any measurable value. Information produced from analytics platforms might identify a problem, but an established operational framework is needed to *solve* the problem. The usability of digital health technology is closely tied with an integrated workflow that ensures a seamless and cohesive flow of information. Organizations that have successfully built action-oriented value-based frameworks for digital health and big data initiatives have started small, often around a “proof-of-concept,” and gradually expanded based on the strategic and operational requirements of the organization.

Convergence of digital health and big data initiatives comprises an increasingly large component of the capital and operating budgets. As a board member, understanding and posing questions to understand the value expected from these investments is critical. Utilizing a value model allows your organization to optimally invest resources and dollars towards programs that generate outcomes and value in alignment with strategic and financial goals. ●

*The Governance Institute thanks Shaillee Chopra, PMP, Senior Manager, and Daniel J. Marino, M.B.A., M.H.A., Executive Vice President, Camden Group, a GE Healthcare Partners business, for contributing this article. They can be reached at shaillee.chopra@ge.com and daniel.marino@ge.com.*