

# Digital Health and Data as a Strategic Asset for High-Performing Organizations

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Healthcare organizations are beginning to recognize that their strategic goals of reducing costs, improving quality, and creating value are contingent upon their ability to harness their data and translate it into actionable information to drive the most optimal results. Incorporating actionable information into a digital healthcare delivery model creates performance-driven outcomes that can help transform hospitals and health systems into high-performing, value-driven organizations.

Many healthcare organizations are making investments in their infrastructure to position themselves as cost-effective and nimble, yielding high-performance results. They are building digital health technologies and advanced analytic capabilities aimed at managing populations with a goal of delivering the most efficient care at a reduced cost. Simultaneously, they are finding new ways to engage, educate, and retain consumers and differentiate themselves as an innovative healthcare leader compared to their peers. Developing an effective, efficient digitally empowered care delivery system from which to identify and drive high performance under

value-based contracts remains of utmost importance. However, achieving digital health objectives along with building an analytics ecosystem continues to be a struggle.

To help guide the development of an effective digital health strategy, hospital and health system leaders should consider the following four key initiatives.

## 1. Transform Data into a Strategic Asset

Many organizations will admit that they are *data rich* and *information poor*, but they don't know where to start to correct the problem. They may have made the mistake of aggregating as much data as possible into a large data warehouse or "data lake" only to discover that they can't extract meaningful information from disorganized data. High-performing organizations have taken a "problem-backed" approach in organizing and harmonizing their data and building coordinated data marts or organized data structures allowing for the creation of richer reports leading to actionable information. This approach is described in more detail in this article.

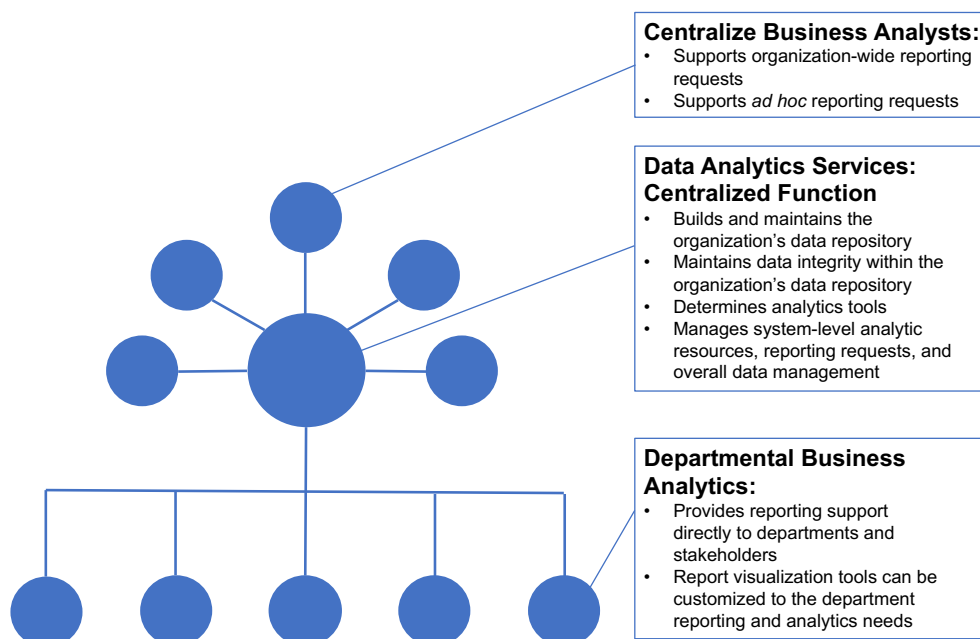
## Key Board Takeaways

Many hospitals and health systems strive to be a high-performing organization yet lack the information insight and performance analytics to achieve these goals. Boards should emphasize the burning platform for healthcare leaders to create a digital health and analytic strategy, and position data as a strategic asset for the organization. Without the drive to build an action-oriented digital health strategy, hospitals and health systems will have difficulty innovating with new care delivery models and leveraging technology to create strategic positioning and value-based success for the organization.

## 2. Build a Data Analytics Organization

As hospitals and health systems grow and information needs evolve and become more critical, departments must create their own information repositories, which includes a limited database and visualization tool. It's not uncommon for healthcare organizations to have numerous centers of data repositories. This can create internal challenges between departments that focus on a lack of data integrity, data ownership, and tremendous unproductive time from staff either trying to validate

Exhibit 1: Model Analytics Department



their report or reproducing information that has already been created.

High-performing healthcare organizations that recognize their data as a strategic asset have created an analytics ecosystem utilizing a hybrid data management approach focused on data analytic services. These newly formed departments create a hybrid methodology around master data management. The data analytics services department centralizes data governance and data ingestion and builds an organization-wide data warehouse to support the information needs of the operational departments and the entire organization. While the data analytics services department creates data management structure for the organization, the individual departments create their own reports based on their individual needs or information requirements. The key is that all department-generated information draws from a single “source of truth” of data, which is managed, controlled, and maintained within data analytic services. (See **Exhibit 1** for a detailed look at a model analytics department.)

### 3. Focus on the Transactional Data to Drive Actionable Information

Historically, as healthcare organizations build information, they focus on data that has occurred in the past and create reports to evaluate progress or performance. Often, they will create trending reports to understand what has previously happened and try to modify future performance based on interpretation of past information. Organizations also create these retrospective-based key performance indicators to help monitor current and future performance.

Although this retrospective information approach is valuable, it does not allow operators to make real-time changes to their operational activities. Many high-performing hospitals and health systems organize data into two categories: retrospective and transactional. Transactional data—and the organization’s ability to harness and incorporate it into real-time (or close to real-time) information or technology—allows organizations to more quickly drive performance. One example of this is an organization’s ability to receive “real-time” information on a patient’s condition and incorporate it into their care management program. Healthcare organizations that have a value-based contract are focusing on identifying the most vulnerable, high-risk patients and identifying transactional data that will allow care managers to more quickly know if they present to the emergency department. The quicker care managers receive this information, the quicker they can intervene in the care. Understanding key transactional data will produce actionable information the hospital or health system can use to improve its overall productivity.

### 4. Incorporate Actionable Information into New Technical Capabilities

Lastly, as organizations identify transaction data and actionable information, they must incorporate this data into technologies and electronic solutions so that staff can capitalize on the information. For example, the identification of transactional data supporting certain disease conditions or quickly recognizing patients within different risk cohorts can allow clinical staff

to receive an “alert” within their technology tool. High-performing organizations have created an information management framework that incorporates a “problem-backed” approach to improving performance. They begin with understanding the problem to solve, information that is required to quickly influence performance, data required to produce actionable information, and the appropriate technology to enable results. (See **Exhibit 2** for a sample problem-backed approach to digital health.)

Some progressive organizations are using actionable information and new technologies to support innovative care models. For instance, telehealth technology is incorporating smartphones and is supporting real-time ingestion of data to assist providers with clinical support. These new care delivery models are using digital health technologies combined with transactional data allowing providers to care for patients quicker than ever before and expand their clinical reach beyond their immediate geographic target market.

In summary, high-performing healthcare organizations are creating analytic and digital health technology strategies that focus on harnessing the great information that exists within their organization, and use this information to increase productivity, manage populations, and define new care models creating a differentiator within their direct market or region. The healthcare organization’s governance and leadership team have to align on the vision of creating data and information as a strategic asset for the organization. An aligned vision will include a financial, operation, and full organization commitment in building digital health technology strategies. These strategies are not easy and require a commitment from leadership to instill a new cultural paradigm based on using data and actionable information—a true “tool” toward building the innovative healthcare organization for tomorrow. If the strategy is built and activated using a pragmatic and prescribed approach, organizations will begin to realize the power of their own data, and leverage actionable information and digital health technology creating an invaluable strategic asset for their organization. ●

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**Exhibit 2: Problem-Backed Approach to Digital Health**

