Driving Analytic Success Throughout Healthcare

The healthcare industry has undergone significant changes for decades. But recently, a combination of factors, including government initiatives to increase access to care, value-based payment models, greater consumer involvement in healthcare purchase decisions, and digitization of healthcare information, have accelerated the pace of change. Analytics plays a critical role in the success of organizations, and it is important to have access to the right analytics platform to support this change.

Payers and Providers
Two of the most common consumers and producers of analytics within the healthcare industry are healthcare payers and healthcare providers.

Healthcare Payers
Healthcare insurers or payers have access to structured data, like claims, accessible through a specific database. These entities have traditionally focused on collecting data that ensures efficiencies in billing and accounting. However, they are now beginning to make inroads into more sophisticated analysis, such as disease management. Expanding their database of information to include other areas, like medical records to track patient outcomes and behavior changes, helps improve both the health insurance business and the health of its members.

Healthcare Providers
Organizations on the healthcare provider side are starting to create a foundation for analytics through widespread investments and government subsidies. Like healthcare payers, they’re doing so with electronic medical records and health outcomes analysis. The goal is to understand which treatments are most cost effective and which providers are the most effective at delivering them. To be successful, provider organizations will need to use analytics for both clinical and business purposes to understand the relationships.
Discover and Collaborate

There are core elements to analytic success in every industry, and healthcare is no different. Simply finding trusted data and analytic assets can derail the process. IDC research shows that analysts spend 37% of their time searching for the right data or asset needed. The proliferation of both data and analytic assets like reports, visualizations or dashboards, macros, or even analytic workflows, this is compounding the challenge. Additionally, the rise of electronic health records over the last decade has increased the importance of data security, from limiting or restricting access, to simply understanding the metadata or lineage of analytic assets.

Alteryx Connect helps users search for and find the right analytic assets at the right time. It combines data cataloging and powerful metadata with human insight to document the types of information your data contains, where the information comes from, who is using it, and how it is used. In addition, a business glossary provides users with a common business language when trying to work with data from multiple systems, making Medicare, clinical, and supplier data easily understood and reusable. These functions are done through a collaborative environment leveraging social interactions and organizational knowledge, all in a governed environment ensuring IT compliance.

Prepare, Analyze, and Model

As data volumes and systems of records continue to expand, healthcare organizations are tasked to work with multiple sources of data, each in different formats, structures, and quality. The days of spreadsheets and manual processes are a thing of the past. Organizations need to quickly gain access to clinical, business, and operational data and blend it with third party or partner data to make business driven decisions.

Alteryx Designer provides necessary self-service data analytics mechanisms for analysts to prepare and blend data from all relevant data sources. Using an easy to use drag-and-drop workflow interface, users can leverage built-in tools to quickly cleanse, prep, and blend data without having to write code. The same analysts can enrich data with packaged third-party demographic, firmographic, and spatial data. Leverage the repeatable workflow to automate and output results to reports, Excel, and leading visualization tools.
Alteryx Designer empowers users to understand the health and hygiene of their data at every step of the analytics process with in-line data profiling called Visualytics. In the healthcare industry, hygiene plays an important role in a patient’s health, and the same holds true when it comes to healthcare data. Visualytics helps analysts make the next decision with their data: are there missing values that need to be imputed, are there any outliers or anomalies, can this data be enriched further? In addition, the same drag-and-drop environment provides a code-free environment with powerful tools for statistical, predictive, prescriptive, and spatial analysis, while also enabling code-friendly analysis from R and Python. This allows organizations to take their analytics to the next level.

Share, Scale, and Govern

Delivering value across an organization at scale and in a controlled environment is a crucial component for healthcare organizations. The requirements and restrictions around reporting and data access mean that protocols need to be put in place to ensure that all regulatory compliances are met. To scale these requirements, systems need to be in place for IT to manage the access and distribution of analytic jobs and the automation of reports to serve the needs across their organization.

Alteryx Server provides the foundation for organizations with the scalability, automation, and governance required across the analytics journey. It enables collaboration across teams and lines of business through sharing and publishing workflows, macros, and reports. It also provides automation and scheduling of analytics process and reports to improve efficiencies, all in a governed environment that provides role-based access and version control.
Deploy and Manage

For healthcare organizations, being able to understand in near real-time if a patient was at risk of a disease, no show for an appointment, or a candidate for re-admission can provide huge value for their businesses bottom line as well as improve patient care. Taking advantage of historical data allows these organizations to implement machine learning techniques to make game changing decisions.

Alteryx Promote makes it easy for enterprises to deploy, manage, and monitor production based predictive and machine learning models. Quickly deploy analytic models whenever and wherever you choose, real-time or in batch, on-premises or in the cloud. Embed Alteryx, R, and Python models directly into production applications via API and actively manage and monitor the performance and health of those models.

Alteryx provides healthcare payers and providers the ability to transform their organizations through powerful analytics and solve complex business problems like:

- Optimizing operations and client services, such as call center support based on resource utilization and member preferences
- Tracking and monitoring client insurance costs across states and programs for future insurance premium adjustments
- Assessing the cost of service and quality by providers for relationship renewals and contract negotiations
- Optimizing quality and range of healthcare service offerings based on local population needs
- Forecasting future workforce requirements by analyzing utilization patterns by facility and time of the year
- Evaluating partner performance (such as pharmacies, physicians, imaging services providers) based on quality and cost of service
- Assessing financial and operational risks of regulation changes, while complying with regulatory requirements

Alteryx offers an end-to-end analytics platform that empowers healthcare organizations to break data barriers, deliver insights, and experience the thrill of getting to the answer faster. Learn more about how we are transforming healthcare organizations, by visiting our website www.alteryx.com/healthcare.