

New IT Remedies for Healthcare Organizations

MODERNIZATION AND ADVANCED DATA TOOLS PROVIDE PATHWAYS TO IMPROVED OUTCOMES

Healthcare organizations, like those in most other industries, are striving to deploy modern, data-focused services but often struggle with data quality, accuracy, and data-driven business decisions. A recent survey of healthcare industry IT leaders indicates that many are eager to take advantage of advanced artificial intelligence (AI) and machine learning tools that can improve business outcomes, but they are focused first on modernizing their existing IT infrastructure and improving or upgrading their existing data analysis tools.

The Covid-19 pandemic has vividly demonstrated that digital infrastructure is the nerve center of the healthcare industry. Organizations found their digital capabilities tested in their ability to rapidly roll out new telehealth services and apply new analytics to improve health outcomes. Many found themselves struggling to adjust to rapidly changing business circumstances as profitable services were scaled back to focus resources on fighting the novel coronavirus.

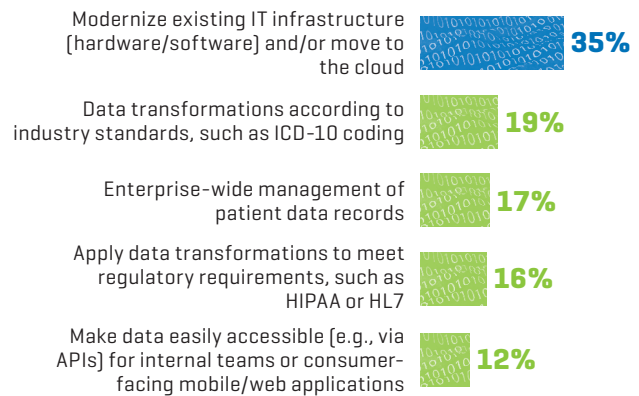
“Outdated legacy IT assets do not provide the necessary performance, computational power, cost-effectiveness, scalability, and security,” says Fotis Konstantinidis, Managing Director for the AI & Digital Transformation practice at global advisory firm Stout.

IT leaders surveyed by *CIO Magazine* reveal that healthcare organizations face a number of challenges in using analytics to improve patient outcomes and customer retention.

The top two challenges of survey respondents involve data quality and data aggregation: collecting internal data from multiple sources of truth and integrating external datasets—such as claims data and demographics data—that help identify opportunities for quality of care improvement and cost savings. The survey indicates that 37% of respondents bemoan the lack of insights generated by current data analytics tools, 36% have claims data quality and accuracy issues, and 36% decry the amount of time required in claims analysis and reporting.

FIGURE 1.

Data-driven Digital Initiatives for the Current Year



Source: *CIO Magazine*

IT leaders would like to start using predictive analytics and advanced machine learning in order to generate better and more accurate insights. But many need to first modernize existing IT infrastructure and/or move to the cloud, which 35% say represents their top digital-driven initiative this year.

Other respondents indicated their top initiatives are: data transformation according to industry standards [19%], enterprise-wide management of patient data records [17%], applying data transformations to meet regulatory requirements [16%], and making data easily accessible for internal teams or consumer-facing mobile and web applications [12%]—demonstrating that IT leaders are also hindered by their ability to keep up with regulatory requirements, industry standards, and other data priorities.

“The abilities to efficiently retrieve accurate health patient records, secure software and data, or even efficiently manage the supply chain do not exist in outdated IT systems,” says Konstantinidis.

“By modernizing the IT infrastructure, the healthcare organization can address challenges such as quality of patient care, lost revenue due to patient outmigration, operational inefficiencies, data quality issues, and data privacy and security needed for regulatory compliance.”

PACE OF CHANGE DIFFERS DEPENDING ON SIZE

Larger organizations with more than 2,500 workers feel more challenged than smaller organizations, likely reflecting the reality that they have built up more complex infrastructure over the years to support greater numbers of workers and clients. Additionally, claims data for larger organizations are massive and therefore more challenging to analyze. Furthermore, M&A activity creates the daunting task of integrating data from multiple acquired companies.

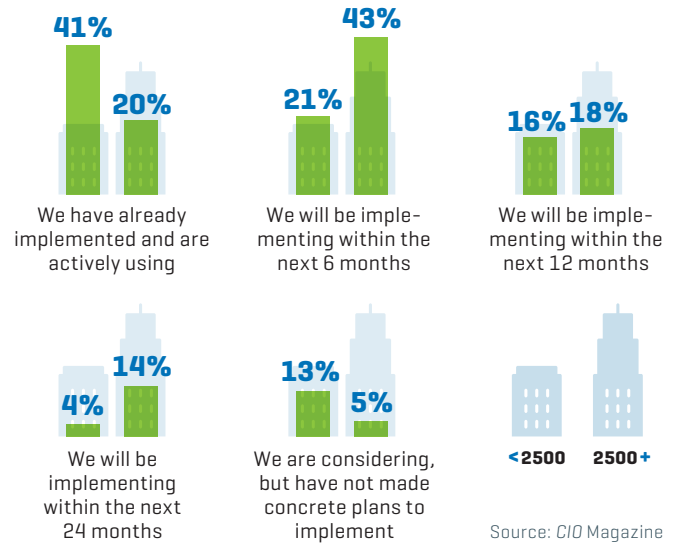
Larger organizations exhibit greater frustration and are slower to adapt than smaller, more nimble organizations, but they are just as anxious to make progress. By a two-to-one ratio, smaller organizations have already implemented and are actively using AI and machine learning, while larger organizations are planning to implement within six months.

“Many healthcare organizations face budgetary constraints and have difficulty establishing a clear ROI to new systems,” says Konstantinidis. “Initial investments for digital transformation and modernization need to be justified with detailed, multi-stage plans as to which IT systems need to be modernized and how these changes would positively affect revenue or cut down cost.”

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Fotis Konstantinidis
 Managing Director for the AI & Digital Transformation Practice, Stout

FIGURE 2.
Timeline to use AI/Machine Learning by Organization Size



TRANSFORMING CHALLENGES INTO OPPORTUNITIES

Data analysis, AI, and automation technology are essential in driving business decisions by delivering insights, analyses, and predictive models that have a measurable impact on health outcomes, customer retention, and operational efficiencies. In 2019, enterprise use of AI and digital transformation grew at 37%, and in 2021, AI and digital transformation will create an estimated \$2.9 trillion of business value and 6.2 billion hours of worker productivity.ⁱⁱ

Konstantinidis says clients look to Stout’s professionals for insights based on assessments of existing IT systems and architectures and the identification of services and components that can be modernized by implementing cutting-edge enterprise architecture frameworks, migrating data and applications to the cloud, and designing APIs to facilitate data exchanges.

“At Stout, our engagements start by implementing rapid prototypes that solve the IT modernization challenges on a smaller scale,” says Konstantinidis. “We quantify the financial gains our solution brings to the healthcare organization and help gain buy-in for the digital transformation and modernization project. Every digital transformation is different and customized for our client needs.”



For more information on how to modernize infrastructure and more quickly apply advanced data analytics technologies and tools to achieve optimal results, visit www.stout.com/en/services/artificial-intelligence-and-digital-transformation.

ⁱ 2019 Gartner CIO Agenda Survey.

ⁱⁱ “Leverage Augmented Intelligence to Win with AI,” Gartner Research, June 2019.