Wake up call

Healthcare providers and payers need to up their IT game. The clock is ticking.
There are difficult technology decisions that healthcare organizations need to make that have little to do with evolving policies, or the flurry of disruptions in the news. The urgency is about more than funding for trailblazing innovations like cognitive computing and blockchain. In the face of intense cost pressures, there are practical matters related to how IT can create value for the organization that must be addressed right now, today.

Historically, information technology (IT) in healthcare has been underfunded. According to Gartner Consulting’s IT Enterprise Summary Report, the average IT spend for a healthcare organization has been 4.2 percent of revenue.¹ This is well below other industries such as media and entertainment (5 percent) and financial services (6.3 percent). There are some tentative signs that this may be changing, however. Although 69 percent of respondents to the recent KPMG/Harvey Nash CIO Survey reported the need to increase operational efficiencies, 50 percent report that their IT budgets are expected to increase this year – a figure that is higher than the average of 46 percent for other industries.²

This leads to some questions: Where are healthcare organizations spending existing, and in some cases additional, budget dollars? And will this spending help them deliver improved clinical care, flawless operational execution and quality customer service?

Organizations that fail to answer these questions may find themselves not only falling short on innovation, but potentially having difficulty keeping the lights on. By contrast, those that do take decisive action will find themselves in a strong position to compete and thrive.
The way forward

In our view, the most critical consideration for healthcare organizations that are able to secure additional IT funding is whether they can direct dollars toward investments that create sustainable value for the organization. This can be accomplished through several measures used by successful healthcare providers and payers (including those interviewed for this report):

Investing
(1) Now is the time to make difficult decisions about transitioning to consumption-based IT models, i.e., from capital expenditures (CapEx) to operational expenditures (OpEx).

Implementing
(2) Investing in even the most innovative information technology assets won’t have much of an impact on your organization if the implementation isn’t managed properly over time.

Optimizing
(3) There are many opportunities to save money by rationalizing assets, including existing applications and legacy systems.

Innovating
(4) Uncovering inefficiencies and getting more functionality out of existing technology will free up funds to pursue the consumer-facing innovations that will ultimately make or break a healthcare organization.
Real-world reflections

Before we provide detail on how the invest/implement/optimize/innovate model works in practice, we introduce some reflections from leading healthcare industry players:

**Texas Children’s Hospital** is ranked number four in the country overall according to *US News and World Report*, and number one for pediatric cardiology. The health system was also given the designation of *most wired* for outstanding healthcare technology by *Hospitals Health Network* Magazine. Currently, the system is undergoing an end-to-end IT transformation as it integrates the hospital with its health plan. Stepping outside of IT’s traditional role, Texas Children’s IT organization views itself as an integral part of making care better. To that end, Myra Davis, CIO, has made a dedicated effort to work more closely with the CFO to reframe IT initiatives from project-based to strategic efforts that transform care delivery. Davis often brings a cross-functional team to the table when making IT decisions: finance for IT spend issues; HR when “people are affected”; the chief medical officer and resident physicians for a deeper understanding of the intersection between clinical care and IT, and even some neutral third-parties to “poke holes” in what’s working and what isn’t.

**Noridian Healthcare Solutions** (NHS), a wholly owned subsidiary of Noridian Mutual Insurance Company, delivers innovative business solutions for government agencies and private healthcare enterprises to reduce costs and enhance value. The organization also serves as a government claims contractor for a number of prominent government agencies and programs, including Medicare since the program’s inception. As a government contractor, NHS is a bit more constrained in how it makes budgeting decisions, according to Todd Knain, CIO. To gain a competitive edge, the organization is actively seeking to *right-size* its IT budget to be more in line with peers and industry standards, while still continuing to introduce innovation.
Getting to ROI

Many CIOs now have at least a dotted-line if not a direct reporting relationship with the CFO organization. As seen with healthcare organizations like Texas Children’s Hospital and NHS, there is a natural concern about proving the value of IT investments. In fact, management at 37 percent of healthcare IT organizations is highly focused on return on investment (ROI) for both new technologies and such ACA-driven implementations as electronic health records (EHRs) and revenue cycle systems, according to the KPMG CIO survey.

Unlike traditional IT projects, which require large capital outlays, our approach to IT cost transformation doesn’t require the typical wait of five to 10 years for a potential payoff. In fact, it provides a return on investment that is measurable, discrete and achievable in a 12-18 month timeframe. Here we take you step by step through the process:

1 Invest Transition from CapEx to OpEx

Faced with unexpected competition from technology companies, both providers and payers are constantly on the hunt for new IT solutions that will help them remain competitive. In addition to eliminating large, upfront outlays of capital, OpEx solutions free up square footage and staff that were traditionally dedicated to CapEx assets. Recent studies have shown that organizations are able to achieve an average 30 percent savings by making the shift to OpEx.

Moving assets to a consumption-based, pay-as-you-go model will allow healthcare organizations to pay for capacity only when it’s used, have the flexibility to upgrade to new information technology offerings as they are introduced, and dramatically improve cash flow and free up budget that can then be dedicated to fueling innovation. Adopting this kind of model often means shifting the way CIOs think about making IT investments: Rather than the organization singlehandedly acquiring, deploying, maintaining, upgrading, and disposing of IT assets, CIOs contract with external providers that can offer infrastructure as a service (IaaS) and assume some of the risk.

Todd Knain talks about how NHS is currently embarking upon this transition. As a government contractor, NHS is very sensitive to the pace of IT asset depreciation: The organization has to make the capital outlay for new assets itself, after which it is reimbursed by the Centers for Medicare and Medicaid (CMS) over time as the assets depreciate. With a shift to more of an OpEx model centered on managed services, NHS is able to minimize its focus on the depreciation schedule and keep much-needed capital in house.

For Texas Children’s Hospital, some projects, such as using outsourced software as a service (SaaS) for the help desk, came with some growing pains, but were ultimately successful. “At first we thought the help desk project was a no-brainer given the money that would be saved and the greater speed in answering calls,” says Davis. “However, we had a bumpy start because we didn’t spend enough time on people and change issues.” Over time, however, the project was successful due to efforts like disseminating hot sheets for complaints and challenges, holding monthly meetings between IT and each part of the business, and, ultimately, showing year-over-year savings.

It is critical to remember: Sometimes an organization will latch on easily to the CapEx to OpEx transition. However, the jury is still out in terms of how comfortable some hospital administrators are about moving protected health information (PHI) to OpEx solutions. According to Blackbook’s 2018 Healthcare IT Trends survey, small hospitals may be ahead of larger hospitals in terms of SaaS adoption: Eighty-five percent of hospitals with fewer than 200 beds say they are halting many of their CapEx projects in favor of OpEx solutions in 2018. By contrast, a significant but lower number, 57 percent, of hospitals with more than 200 beds are ready to make the shift from CapEx to OpEx.
Don’t forget people and change

To whatever degree organizations can loop in not only the CFO but end-users, there will be greater adoption of the as a service model.

Texas Children’s Hospital, for example, has created an end-user experience team comprising physicians, nurses and IT leaders. Members of the IT team accompany doctors on rounds, so they can get a firsthand view of critical operational challenges and bottlenecks, e.g., how long it takes to log into a patient’s EHR or whether there are barriers to sharing information with other physicians. The team then takes its findings to a focus group of end-users to see if their experiences are consistent and all constituents are aligned on the path forward. “We welcome focus group participants who challenge us,” says Davis. “The more vocal they are and the more heated the discussion, the more likely it is that we will have a high degree of success.”

Instead of physicians, NHS is bound to the CMS’s policies and perspectives when making budgeting decisions. The organization is shifting from a decentralized governance model, where every department chose where to spend its budget dollars, to one where decisions are centralized under the CIO. “Essentially, CMS and our CFO determine what our budget will allow and then the CIO apportions the funds to process improvements that will move the organization forward,” says Knain.

Ultimately, such collaborations will lead to a greater connection between day-to-day processes and the technologies that support them, as well as less of a learning curve. These factors should, in turn, encourage end users to view technology change as less of a burden and more of an enabler. And finally, hospital leadership will be able to see where technology adoption is strong and where further training is needed, and gain a valuable feedback loop to ensure continuous process improvement.
It’s not enough to make a large IT investment – whether CapEx or OpEx. Healthcare organizations need to make sure they keep the implementation budget and timeline on track and configure the system successfully. To this end, a project management office (PMO) can help you by making sure the project has adequate resources, troubleshooting issues as they arise and putting pressure on IT vendors to monitor the new system closely.

Texas Children’s Hospital is realizing some of the benefits of outsourcing its PMO to a service provider. Since the service provider is already providing support for the 16,000 desktops in the environment, it’s a natural transition to serve as the PMO and ensure that the new technologies they implement are harmonized with this legacy gear. “We really appreciate that the provider takes care of all upgrades and maintenance so we can focus on more strategic issues,” says Davis.

Another critical aspect of IT implementation is devising processes and governance to support the technologies. At NHS, for example, they are recrafting their governance processes in order to centralize priority projects, report how they are tracking against their budget and forecast major expenditures.

Don’t forget cyber security

Although cyber-security measures lead to cost avoidance more than cost reduction, there is an argument to be made that solid cyber-security measures like access management will cut down on the time taken to log on and off systems in a hospital. Such soft ROI will in turn allow faster turnaround in sharing patient data, making clinical decisions and updating charts – all critical to improving patient outcomes.

Both NHS and Texas Children’s Hospital have made cyber security a major priority in their future-facing budgets:

For NHS, the nuances of their work with government entities means that cyber security is of the utmost importance. At present, the organization is focused primarily in three areas:

- **Encryption** – The organization is using cutting-edge encryption for data in transit, at rest and now in storage devices, including backups.
- **Security control compliance** – There is a 10-person department that monitors all assets (servers, network devices, PCs) for compliance with security control assessments, lock-down procedures and more.
- **Logging and monitoring** – All servers report back into a centralized log management system.

Texas Children’s Hospital has made cyber security a major priority as well. The organization currently has a number of formal entities in place that play a role in their cyber-security program:

- **Infrastructure technology advisory board** – Security engineers ensure that the design and architecture of any new solutions adhere to security controls and policies.
- **Vendor risk management committee** – The committee conducts a full risk assessment of any new contracts to ensure that security and controls are top of mind.
- **IT risk management committee** – Leaders from across the organization, including the CMIO, review all security initiatives running through the program with an eye to data loss prevention at the desktop, in master data management, etc.
Optimize Rationalize IT assets

It is critical that the CIO and IT leaders work with the CFO to understand the financial impact of decisions about which assets to retire and what technologies will serve as their replacements. Organizations need to make a regular case for what is best for the enterprise by providing both a cash view and a profit and loss view to the CFO organization.6

For example, data centers are often one of the primary budget domains for organizations, including hospitals. For some time, industry analysts like Gartner have recommended that organizations consolidate their data center facilities.7 In our view, while consolidation is always a consideration, leveraging the consolidation activities to simultaneously migrate to hosting services and other as a service initiatives is a particularly useful accelerator that can deliver results on the compressed timetable that executives expect.

Texas Children’s Hospital recently spent a year working on a cost/benefit analysis of consolidating nine existing data centers into one primary and one secondary center. The length of this initiative and the two stages of development meant that the IT organization could avoid having to go back to the board for a refresh for more than two years. Further, the effort allowed IT to transform how it supports the organization from a platform perspective, as they are now able to deliver new solutions much more rapidly and reduce variability by eliminating some vendors.

Knain says that NHS has actively sought to reduce fixed infrastructure spending year over year. This strategy is exemplified by the organization’s recent effort to introduce a new SaaS CRM solution to avoid the on-going need to refresh long-standing applications as they become “stale over time.”

Another area that is ripe for optimization is electronic health records (EHRs). Most provider organizations report that EHRs are still a challenge in terms of poor interfaces, interoperability limitations, time-intensive data entry, and interference with patient interactions.8 They are frustrated that there is still very little demonstrable ROI from simply having an EHR. They want to be able to mine EHR data and leverage it to provide more efficient, better care.9 Using data more strategically will take greater budgets in the short term, but ultimately this is a critical part of driving down the cost of healthcare.

According to Davis, “Although our physicians are still very frustrated with EHRs, we are putting a lot of time and manpower into enabling EHR functionality from both a clinical and a business perspective. We are confident that over time we will realize significant value.” For example, as the hospital system has added hospitals, primary care practices and urgent care centers to its network, they took the opportunity to expand the use of Epic’s MyChart across all hospitals. This bedside interface to a patient’s EHR eliminated the cost of refreshing their previous capital investment while advancing a solution that empowers patients and provides closer communication with physicians.

In all cases, it is critical that CIOs factor in the need to pilot programs and then provide comparative data from the previous year to demonstrate that there are real savings that can be realized in a reasonable amount of time. Savings and increased revenue from IT rationalization efforts can soar into the upper millions. And, according to Gartner Research, CEOs report an average of 20 percent immediate cost savings in the first 12 months alone.10
Innovate

Free up funds to move the organization forward

Whether a healthcare organization’s budget increases, contracts or remains flat, many are finding that they can access new revenue dollars by uncovering inefficiencies and reallocating existing spend, according to the findings of the KPMG CIO survey. Ultimately, a greater percentage of OpEx in the budget, instituting a PMO and technology rationalization will help organizations realize ROI more quickly and, thus, free up funds for patient-focused technology initiatives.

Innovations healthcare organizations are pursuing with reallocated budgets span from the back office to clinical care to the front office. For example:

Back office
- Introducing intelligent automation (IA) to increase the quality and efficiency of repetitive back-office tasks
- Using blockchain to secure the hospital supply chain
- Mining patient data to devise value-based contracts between providers and payers

Clinical care
- Exploring passive collection of patient data via wearables, Smartphone apps, and GPS and RFID-based sensors
- Instituting more evidence-based clinical processes and protocols via advanced data & analytics tools
- Analyzing EHR data with cognitive computing and predictive analytics for personalized medicine
- Transmitting real-time population health and quality of care metrics from providers to payers

Front office
- Creating customer self-service portals for better patient management of illnesses and insurance coverage
- Building new digital care delivery platforms – such as telemedicine, mobile health, and patient/provider portals
- Implementing digital transparency tools that give patients insight into variations in provider pricing

This is critical for healthcare organizations’ survival: There is an unstoppable evolution toward the consumerization of healthcare, with access, quality customer experiences and value looming larger and larger. Digital modes of care can be used to attract new patients, retain current ones, and engage patients with tools and personalized information that can influence their treatment adherence, improve outcomes, and encourage self-management of symptoms when appropriate.

Traditional healthcare organizations face threats to their market share from a whole host of unconventional competitors that have a closer pulse on consumer preferences for access, quality and value. Organizations need to find ways to remain competitive by expanding into multi-channel modes of care to meet patients where they are.
Conclusion

For healthcare organizations to stay afloat in the midst of unimagined disruption, IT must be elevated to a strategic priority. Success will depend upon the degree to which organizations can maximize their IT investment strategies, manage IT implementations, optimize IT assets, and free up funds to embrace innovations that will improve their encounters with more discerning patients. Organizations like NHS and Texas Children’s Hospital are well on their way to making the shift to this way of thinking and operating. The hope is that others will follow suit.

Stay tuned for further thought leadership on transformation, governance and cultural change as a result of healthcare IT investments and implementations.

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How KPMG can help

KPMG is one of the largest providers of professional services to healthcare and life sciences organizations globally. We serve about half of the top 200 healthcare systems and academic medical centers in the U.S.

KPMG serves its healthcare clients with a proprietary IT target operating model (TOM) methodology that centers on how IT can be used to support business strategies. We use our TOM framework to help organizations determine where and how to make new technology investments; identify which IT assets to optimize and which to sunset; align the PMO to support multiple work streams across a transformation effort; and create a roadmap toward a future state IT function that leverages disruptive technologies to help organizations remain competitive.

Further, as our healthcare clients increasingly require substantial data to justify and calibrate transformation initiatives, KPMG has put a particular emphasis on continuing to expand and enhance our data & analytics capabilities. We have done this via organic building of an in-house think tank (Lighthouse), strategic acquisitions of analytics consultancies and tools, and an infusion of D&A into our industry-focused teams. This allows us to help clients define problems, gain institutional support for transformation efforts, benchmark against internal and external players, and monitor and sustain change.

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