



Deloitte 2017 Survey of US Health System CEOs: Moving forward in an uncertain environment

There is a sacred trust we have with the people we serve and we have to do everything possible to avoid a breach or mitigate it when it happens.

—CEO of a large nonprofit health system

Introduction

As a follow-up to our 2015 Deloitte Survey of US Health System CEOs, we interviewed 20 health system CEOs in May 2017. We found that, of all the issues that may keep hospital CEOs up at night, they are most concerned about:

- » The future of Medicaid
- » Moving towards population health
- » Declining margins
- » Recruiting and retaining forward-thinking and adaptable health care leaders
- » Keeping up with new technology
- » Adapting to evolving consumer expectations

In chapter 5 of our series, we explore how surveyed CEOs are using and thinking about technology, including its benefits and cybersecurity needs, and how it can support their organization in delivering care.

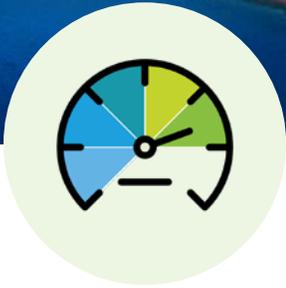
About the survey

The Deloitte Center for Health Solutions interviewed 20 hospital and health system CEOs during May 2017. In 2016, their organizations collectively generated \$91 billion in annual operating revenue, with each generating more than \$1 billion annually.*

**Based on Deloitte analysis of DACBond, Hoovers, and organization websites*

The CEOs represent a wide range of organization types, including:

- » Seven nonprofit hospitals/health systems
- » Seven academic medical centers (AMCs)
- » Three faith-based, nonprofit hospitals/health systems
- » Three children's hospitals



CHAPTER 5

Enabling care transformation and mitigating cyber risks through technology

Health system CEOs we surveyed are concerned about cyber risks and the cost of Health Information Technology (HIT). Despite these concerns, health system CEOs continue to invest in technology to improve:

- » Care delivery
- » Operational efficiency
- » Consumer experience
- » Data analytics
- » Cybersecurity preparedness

In addition, some CEOs cite the need for better HIT tools to improve revenue cycle management: if the number of self-pay patients increases, the use of high-deductible health plans (HDHPs) increases and reimbursement from all payers decreases. As a result, many CEOs say they need systems in place to better capture reimbursement. This includes improving registration, collection, billing, and claims processes.

HIT and technology investments: Staying current and strategic

The CEOs we spoke with describe the dangers of making tactical HIT investments that lack clear ties to broader organizational goals of using technology to improve care delivery. Among more strategic investments are technologies

that better connect patients, lower cost of care, or improve administrative process efficiency.

As health care becomes increasingly digitalized, more hospitals and health systems are welcoming technology experts into the C-suite and including more business and clinical experts among their IT leadership.¹

Health IT is a big, big, big concern, [but is] the tail wagging the dog? Are we an IT institute that happens to care for children occasionally? A lot of our IT people think so.

—CEO of a large children's hospital



Such staffing changes can be important because a number of CEOs say they are focused on developing and applying an organizational strategy for HIT versus making one-off investments.

A common investment focus area for CEOs is integrating legacy systems as part of a merger or acquisition. Getting to a standard IT platform is often a priority because it can help improve efficiency and enable operational integration. In addition, merging IT systems can help dismantle “silos” of clinical and other data which, in turn, can improve analytical capabilities, create a more unified patient experience, and support quality tracking and other improvements.

“It is a high priority to get to a standard platform. Getting to one platform we think will add a lot of efficiencies and help us act more like a system. [We are] behind [our] peers in this regard.”

—CEO of a large faith-based health system

HIT spending is high and it continues to grow, according to interviewees. Also, because technology evolves quickly, years-long IT projects can be made obsolete within months

unless sufficient funding is designated for ongoing system enhancements. And despite HIT’s potential to drive organization-wide improvements, many executives say they have yet to see a tangible return on their technology investments. HIT ROI can be difficult to calculate, which can make justifying investments challenging and complex.² Many executives describe a wide range of systems that contribute to technology spending, each of which could require unique ROI calculations.

“[Technology investment] has actually realized the fewest benefits. We continue to spend more and more in technology but we have not seen the return.”

—CEO of a large faith-based health system

Transforming care and embracing change

Despite concerns about necessary and growing HIT spending, many executives report investing in digital consumer-engagement capabilities to improve patient access and care delivery. These include online scheduling, patient portals, and telehealth. Some executives see these capabilities as just the beginning of transforming care.

“More and more...care is going to be delivered through telemedicine and digital medicine, and that’s an area that we are focusing on—big time. All we have to do is look and see the younger generations these days and figure out how it is that they access information and manipulate information, and then do the same for health care.”

—CEO of a large academic medical center

While some executives lament the need for continual and large technology investments, the opportunities that accompany them should not be ignored. HIT spend is unlikely to decline in the future, and cyber risk is unlikely to disappear. Cultivating a thorough understanding of the organization’s long-term HIT strategy, including risk-mitigation, can be critical.

“I just believe that there will be a disruptive technology or a disruptive innovation. And much like you can’t imagine leaving without your iPhone for one day, I think we are going to be receiving health care and demanding things from the health care system that we can’t even imagine as we sit here today.”

—CEO of a large nonprofit health system

Cyber risk and security: Maintaining the “sacred trust” is a top concern

Nearly all executives are aware of their institutions’ cyber risks, particularly since our interviews were conducted during the widely reported WannaCry cyberattack. The number and magnitude of cyberattacks is increasing across all industries,³ and health systems’ increasing technology use makes them vulnerable to such attacks. Additionally, malware has evolved to spread laterally throughout organizations and can have real operational and safety impacts.⁴

CEOs’ perspectives on cybersecurity ranged from passionate, citing the “sacred trust” that providers must protect the people they serve; to more pragmatic, noting its necessity but lamenting its cost.

“This cybersecurity issue that broke loose over in Europe is far larger than people realize. Cybersecurity... will continue to be [an issue], and I think what happened this past weekend [the WannaCry cyberattack] will become the new norm.”

—CEO of a large faith-based health system

Health care is second only to the finance industry in the number of cyberattacks annually.⁵ Of note, 80 percent of health industry attacks in 2017 targeted providers.⁶ An average of one health care breach incident per day was reported in the first half of 2017, with at least half of the incidents perpetrated by hackers.⁷ Globally, the average total cost of a health care

data breach to an organization reached \$3.62 million in 2017. The overall organizational cost per breached health care record reached \$380, leading all other industries.⁸

Cybersecurity is a priority for most CEOs, but it exists as one issue among many that demand their attention. Several executives note that they have been focused on cyber for some time already, but are aware that they may never be completely safe. A large academic medical center, for example, could contain 500 to 1,000 different HIT systems, each interacting with the organization’s very large electronic health record (EHR) and enterprise resource planning (ERP) systems, which can result in many points of potential failure.

With a well-developed HIT strategy, CEOs and HIT leaders can prioritize resources and invest in updates and emergent technologies that have potential to improve care delivery, cost, quality, and consumer engagement. Executives should think strategically about how each HIT investment brings the most value, and how it enables new, different, or better care. Forward looking CEOs are commonly:

- » Defining a strategy to drive HIT investments and decisions across the entire organization
- » Developing new models of delivering patient care through technology
- » Investing in exponential technologies such as:
 - Robotics and artificial intelligence for administrative and clinical process automation
 - Cloud solutions to enable access to continually updated systems, rather than housing, maintaining, and updating complex HIT systems on-site
 - Blockchain for the safe transfer of information to, from, and within the hospital, including among patients and other health care provider organizations
 - Clinical developments, including gene therapy, that improve care and quality
- » Using predictive analytics to deliver population health capabilities such as identifying patients who are most at risk for medical complications including diabetes and cardiac arrest
- » Finding ways to integrate data across the organization and address regulatory barriers and data silos
- » Sharing information to create smarter ways of working with multiple stakeholders
- » Leveraging data and technology for decision-making in care delivery and process improvement efforts.

The idea that you are going to be fool-proof against hackers of one kind or another would be foolish. You just have to make sure that you can do the best you possibly can to protect yourself as much as you can, but you can never be foolproof.

—CEO of a large academic medical center

Endnotes

¹ Jeff Lagasse, "Hail to the chiefs: Healthcare's new C-suite titles are here to stay," Healthcare Finance, July 14, 2017. Available at [<http://www.healthcarefinancenews.com/news/hail-chiefs-healthcares-new-c-suite-titles-are-here-stay>].

² Julia Adler-Milstein, Gregory Daniel, Claudia Grossmann, Chad Mulvany, Rachel Nelson, Eric Pan, Valerie Rohrbach, and Jonathan Perlin, Institute of Medicine, "Return on Information: A Standard Model for Assessing Institutional Return on Electronic Health Records," 2014. Available at [<https://nam.edu/wp-content/uploads/2015/06/ReturnonInformation1.pdf>]

³ Checkpoint Software Technologies, "Mid-Year Report: Cyber Attack Trends 2017," 2017. Available at [<https://www.checkpoint.com/downloads/resources/2017-cyber-attack-trends.pdf>].

⁴ Ibid.

⁵ Verizon Communications, "2017 Data Breach Investigations Report," 2017. Available at [<http://www.verizonenterprise.com/verizon-insights-lab/dbir/2017/>].

⁶ Protenus, Inc., "Breach Barometer Report: Mid-Year Review," 2017. Available at [https://www.protenus.com/hubfs/Breach_Barometer/2017/Mid%20Year%20Review/2017%20Protenus%20Breach%20Barometer%20Mid%20Year%20Review.pdf].

⁷ Ibid.

⁸ Elizabeth Snell, "Healthcare Data Breach Costs Highest for 7th Straight Year," Health IT Security, June 20, 2017. Available at [<https://healthitsecurity.com/news/healthcare-data-breach-costs-highest-for-7th-straight-year>].

Authors

Steve Burrill

Vice Chairman
US Health Care Providers Leader
Deloitte LLP
sburrill@deloitte.com

Arielle Kane, MPP

Deloitte Center for Health Solutions
Deloitte Services LP
arkane@deloitte.com

Ryan Carter

Deloitte Center for Health Solutions
Deloitte Services LP
rycarter@deloitte.com

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Deloitte Center for Health Solutions

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Sarah Thomas, MS

Managing Director
Deloitte Services LP
sarthomas@deloitte.com

Email: healthsolutions@deloitte.com

Web: www.deloitte.com/centerforhealthsolutions

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