Kentucky Trustee

For Kentucky Hospital Governing Board Members   **March 2017**

GOVERNANCE INSIGHTS

Navigating A Hazy and Uncertain Future

While a clear vision for the future is a critical component of a strategic plan, today's future is frequently clouded with uncertainties. Recent ambiguity about health care transformation under the Affordable Care Act (ACA) has been replaced with uncertainty surrounding repeal of the Act. What remains constant is the board's responsibility to navigate through the uncertainty and provide visionary leadership despite hazy views.

Visionary boards don't happen by chance. While many potential challenges can prevent boards from maximizing their visionary potential, high-performing boards set the stage for visionary success by adopting several key practices.

Staying well-informed. Trustees must have credible and current information in order to recognize and anticipate the forces, trends and changes happening in the environment. They must develop a high level of understanding in the areas most critical to the organization's performance and success. A strong knowledge base and deep understanding will help trustees recognize opportunities and visualize new horizons. Well-informed trustees seek out opinions, ideas and perspectives that may be different from their own in an effort to break through old paradigms and gain new perspectives.

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Creating agendas that are focused on the right things. Working closely with the CEO, the chair of visionary boards ensures that meeting agendas are structured so the board can spend its time concentrating on the most important strategic issues. These board chairs help focus trustees' attention on high-level thinking and planning. They engage trustees in discussions, debate and creative thinking to discover opportunities and develop innovative solutions.

Inspiring a shared vision. Few things are more motivating for an organization than a clear picture of a bright and successful future. Visionary boards accomplish this by building on compelling missions and a shared purpose that inspire and motivate everyone in their organization.

Investing in motivated trustees. Board service is complex and challenging. It requires members who are willing to commit time, availability and discipline. Board members should have the integrity, drive and passion for the organization that will inspire and encourage everyone around them, including employees, other trustees, the medical staff, patients and the community at large.

Visionary boards build on their commitment to the mission, their understanding of community health concerns and a big picture view of the evolving health care environment. Through deliberation and discussion, they explore new possibilities and are willing to take the calculated risks that lead to visionary futures.

Building Trustees' Visionary Skills

Not all trustees around a board table will be skilled visionaries, but there are steps all trustees can take to build the leadership

Kentucky Hospital Association

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PRESIDENT'S NOTEBOOK

KHA staff is following closely the activity in Washington, as President Trump and the new Congress implement their health care agenda. Now, Tom Price, former U.S. Representative for Georgia, and new HHS Secretary, will advise the president on matters of health care reform. In the meantime, Republicans continue to advance their strategy to appeal the ACA.

Michael T. Rust
President

KHA is steadfast in our message to our Congressional leaders that repeal of the ACA must include repeal of Medicare cuts to hospitals. In addition, a replacement package must be part of the plan. I visited our Congressional staff in mid-January, sharing this message, along with KHA Board Chair, Susan Starling and other hospital leaders.

At the state level, the KHA Hospital Day at the Legislature, held on February 23, was a success. Over 100 hospital executives took part in the day to lobby their legislators face to face at the Capitol in Frankfort.

The 2017 Kentucky General Assembly is in the final stretch of the legislative session. The legislature will speed up the process of moving bills out of committee and their respective chambers before time runs out on the 30-day session.

This session is the time to pass the needed medical liability reform legislation. Thank you for contacting your legislators and urging them to vote YES on protection of peer review proceedings and medical review panels.

Peer review proceedings are held to be confidential in 48 other states. There are many confidential communications or proceedings granting such privilege (e.g., attorney-client privilege, psychiatrist/psychologist-patient privilege or clergy privilege), so this is not new.

Medical review panels are important to Kentucky and are needed to weed out frivolous and meritless lawsuits to improve Kentucky's medical liability climate. The focus of health care should be on patients, not lawsuits.

Thank you for your important advocacy assistance throughout the 2017 Session. Your input and support from contacting your legislators is essential for success.

Sincerely,

Michael T Rust

Michael T. Rust, FACHE
President
Kentucky Hospital Association

Governance Notebook

Kentucky Hospitals' Circle of Friends Political Action Committee

KHA's political action committee, Kentucky Hospitals' Circle of Friends, is important to every hospital in the state because it provides an opportunity to educate officials about health care legislation that impacts hospitals. We ask all Kentucky hospitals' board members to make a personal contribution to help move Kentucky hospitals' legislative agenda forward. No contribution is too small and can be made by personal check or personal credit card online via the advocacy section of www.kyha.com.

Save May 18-19 for the KHA Annual Convention

KHA invites you to join your hospital chief executive officer and fellow hospital trustees at **KHA's 88th Annual Convention, May 18-19** at The Lexington Center/Hyatt Regency Hotel. **Please talk to your hospital CEO about attending.**

Do you have ideas for future issues of the *Kentucky Trustee*?

Our goal is to provide you with the information and knowledge you need to lead your hospitals forward in today's rapidly changing environment. Tell us what you think, and what you would like to see in future issues of the *Kentucky Trustee*.

Write or call:
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skills that will help the board navigate uncertainty and define a clear direction and focus for the future. Critical skills to set trustees up for success include:

- Committing the time and effort needed to be well-informed and knowledgeable

- Developing a working expertise about the issues driving health care

- Stepping back from details and tactics and looking at the bigger picture to get better strategic perspective

- Analyzing trends and determining possible implications (asking "What if "x" happens?" and "So what would that mean for us?" questions)

- Considering issues and situations from various perspectives, putting oneself in the shoes of various constituencies or stakeholders

- Being open to new ideas

- Challenging assumptions and the status quo

- Staying focused on the mission and vision

- Being willing to take well-calculated risks

- Imagining what might be achieved

The Importance of Leadership to Make Vision a Reality

The board's responsibilities are many—finance, quality and patient safety quite understandably top that list of accountabilities. But for all their importance they shouldn't exist to the exclusion of vision, because vision is often the catalyst that pulls an organization together and drives it forward.

Visionary leaders combine their knowledge and understanding of environmental forces and trends with a focus on the future to anticipate what might or will happen. Rooted in information and sound judgement, successful leaders make credible predictions that are directly relevant to the organization's mission. By anticipating or predicting what might happen, visionary leaders can define the direction the organization should go. Clear, concise, inspired mission-driven visions for the future are compelling. They bring people together and motivate them to achieve the vision.

Once a clear vision of where the organization wants to be in the future is set, the board and executive team must act to make that vision a reality. The Malcom Baldrige National Quality Award includes criteria for visionary leadership in its framework of core values and leadership behaviors of high-performing organizations, including the following:[1]

1. Leads the organization in setting and owning organizational vision and values

2. Guides the creation of strategies, systems, and methods to ensure ongoing organizational success

3. Creates and ensures a supportive and collaborative environment

4. Inspires the organization and others to achieve high performance

5. Engages in personal learning seeking input from others

Three Truths About the Challenge of Visionary Thinking and Planning

There are three important truths that boards should be aware of when challenged by visionary thinking and planning:

First, board members don't need to know everything there is to know to make intelligent decisions and wise choices about the future. What board members do need is sound, relevant and timely information about the environment. With

data and facts about market forces and trends that are at work, board members can start connecting the proverbial dots. By asking questions that begin with "What if…?", visionary boards can identify a variety of potential scenarios and begin to build a deeper understanding of new paradigms.

Moving a step further, visionary boards also ask "What could that mean to us? What implications might it have for our organization?" and "What should we do to be prepared?" By considering a variety of potential scenarios, these boards can begin to identify strategic opportunities and a path forward. They are better prepared to act quickly instead of reactively when things change.

Second, because health care and technology are changing rapidly, what boards will know tomorrow is going to be very different from what they know today. This reality requires board members to continually ask and discuss "what's new" to keep pace with change. The board must be able to rely on help from senior leadership to bring forth new and relevant data and information from multiple sources that is presented to the board in a concise,

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Planning for Meaningful and Actionable Governance Improvement in 2017

America's health care system is at the crux of uncertainty. Health care leaders are absorbed by the potential of Affordable Care Act "repeal" and "replacement," including the unknown futures of health insurance, hospital payments, value-based purchasing, Medicaid expansion, access to care and more. Now is a good time to ensure that a strong governing foundation is in place to support successful board leadership under any scenario.

Demands for greater levels of governance accountability require motivated, knowledgeable trustees who understand how to think and lead strategically. An understanding of current issues and projections, visionary thinking and scenario planning is key to meaningful board leadership. To get there, boards must start with the essentials. Trustees who understand their roles and responsibilities, commit to ongoing learning, and have the necessary tools and resources will be well situated for success.

The following ten governance action areas should be considered by boards of trustees as they prepare themselves for 2017 and beyond.

1. Knowledge-Building

Governance education is a continual process, not an end result. The end result and benefit of governance education is greater knowledge and leadership intelligence that ensure trustees are fully-prepared to engage around critical issues, and make evidence-based vs. "gut"-based decisions. Well-planned and well-focused governance education builds the "knowledge capital" the board needs to ensure that the right decisions will be made, using meaningful information and data.

❏ Are you confident your board has adequate knowledge about its fiduciary responsibilities, board vs. management responsibilities, quality and patient safety, commitment to the community, board/Chief Executive Officer (CEO) relationships, board/medical staff relationships, workforce and changes in health care reimbursement?

❏ Do your board members attend or participate in governance education sessions and engage in discussions and deliberation about issue implications and next steps?

❏ Is your board, senior leadership and medical staff ready to provide the leadership required to successfully navigate the trends and implications that will shape the environment in the next five years?

2. Trustee Succession Planning

Recruiting new trustees to serve on your board is as important as CEO recruitment. How well boards plan and execute this process defines the organization's leadership success for years to come.

Governance succession planning is the key to not only filling an empty seat on the board, but to strengthening board and organizational performance. By regularly assessing the board's leadership strengths and weaknesses, and using the hospital's strategic plan to define critical future leadership requirements, the board can identify governance "gaps" that can be closed through targeted trustee recruitment.

❏ What missing, yet critical trustee skills, expertise and perspectives will be necessary for your board to possess in the future?

❏ What "gaps" in governance expertise and perspectives should your board fill through trustee succession?

3. Trustee Orientation

Trustees are accountable for their decisions and fulfillment of their fiduciary duties beginning day one of their board service. While many admit it takes at least one, if not more years for most trustees to gain the depth of knowledge and understanding needed to be an effective board member, many trustees are thrust into board service with insufficient orientation and little or no governance education. Even organizations with sound orientation programs in place may need to reconsider how to best prepare new trustees for the work and responsibilities of today's board.

A new trustee orientation should be a year long process that, when thoughtfully designed, will speed up the trustee's depth of understanding, effectiveness and readiness to make valued contributions to the board.

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- ❏ Does your board have a comprehensive governance manual?
- ❏ What is your process for on-boarding new trustees over the first year of board service, and are mentors used to help new trustees ramp up quickly and successfully?

4. CEO Succession Planning

One of the principal accountabilities of the board of trustees is to ensure that the organization has consistently effective executive leadership at the top. The board is responsible for recruiting, motivating and retaining the CEO. This responsibility is not carried out in isolation. It is a continuous, evolving process of ensuring that leadership succession is planned and coordinated in a meaningful way to ensure a seamless transition from one executive leader to another.

The aim of succession planning should be to identify and have ready a process, guidelines and tools for recruiting or appointing a new CEO, whether the current CEO leaves abruptly, or the leave is well-planned in advance. It is not necessarily the determination of who the next CEO should be, nor who in the organization to groom as potential successors.

- ❏ Does your board have a CEO succession plan with an up-to-date CEO job description?
- ❏ Does your board understand the difference between succession planning and actively recruiting for a new CEO?
- ❏ Does your board have a clear process for evaluating the CEO's performance and compensation?

5. Governance Performance and Practices Assessment

A governance practice and performance assessment is an organized evaluation of board members' satisfaction with all aspects of board performance in fulfilling the board's governance responsibilities.

Governance assessments generally use a combination of quantitative and qualitative measurements of board, committee and individual performance.

An effective governance assessment is only the first step in developing trustees to be highly effective strategic thinkers and leaders able to provide unique perspectives and counsel. It establishes a benchmark for board performance in a broad range of important areas. An assessment also identifies governance strengths, weaknesses, opportunities and barriers, as well as areas where board members may lack consensus on their performance and expectations. Insights derived from the assessment can help drive an agenda for improvement that includes targeted governance education, board succession planning, development of critical competencies, and an ongoing process of "governance gain."

- ❏ Can your board define how it makes a unique and meaningful difference for the hospital and the communities it serves?
- ❏ Does your board conduct a governance assessment annually?
- ❏ Do all board members participate in the assessment process and does the full board review the results to determine opportunities for governance improvement?

6. Governance Best Practices

Conducting regular board assessments allows the board to benchmark its performance. Boards should also know how they compare to other boards across the country, continually seeking opportunities and ideas for improvements in structure, composition, culture, and more.

- ❏ How would you describe your board culture and performance?
- ❏ Are you confident that your board agendas and discussions focus on the right issues?
- ❏ Do you know how your governing practices compare to those of other

boards (such as attributes, meeting frequency, nature of board agendas and discussion, board practices, etc.)?

7. Governance Report Card

Too often boards of trustees assume that quality and patient safety, finance, workforce and community health are not issues in their hospital unless they hear otherwise. Instead, boards should ask specific questions to ascertain the hospital's current performance, and pinpoint the areas with the greatest need or opportunity for improvement or with the greatest impact to the organization's success in achieving its vision and fulfilling its mission.

Every board should utilize a "dashboard" to review and monitor key metrics in critical areas such as quality and patient safety, community health, financial and operating ratios, and more. While each board's dashboard will be unique, indicators should be limited to high-level measures that will help the board identify trends and directions without becoming mired in too much detail.

- ❏ Does your board regularly review a dashboard with easy-to-read metrics and does the dashboard prompt deeper questions, dialogue and discussion?
- ❏ Do you make adjustments to your strategic plan and goals as new information and trends arise?

8. The Board Retreat

Board retreats are one of the most important leadership efforts governing teams participate in. Few other activities offer boards the opportunity to think, focus and plan the way a retreat can. To be effective, the retreat must be carefully planned, coordinated and executed, otherwise it's simply another long meeting.

- ❏ Does your board hold an annual retreat and do trustees believe it is a good use of their time?

❏ Are trustee, leadership and medical staff perspectives solicited in shaping the retreat agenda, and are retreat agendas focused on deep dialogue and robust discussion?

9. Governance Policies and Procedures

Well thought-out policies and procedures set a clear expectation and standard for the manner and process in which certain situations and issues will be handled. Establishing a decision once in regards to specific situations and issues creates efficiency and consistency.

Inherent in the adoption of a written policy is the expectation that the organization will follow the direction outlined in the policy. Failing to make a policy available and known to all affected parties, educating trustees and/or employees about the policy or simply not ensuring that the protocols of the policy are consistently followed essentially nullifies its existence.

❏ Does your board have the appropriate and required policies and procedures in place (such as conflict of interest, public disclosure, and whistleblower)?

❏ Do all board members know, understand and agree to the policies and procedures?

10. Committee Charters

Board committees, task forces and advisory councils are an essential component of effective governance and leadership. They form the "substructure" that enables the governing board to focus on larger issues of policy, strategy and vision. Board committees must have a vital purpose with clearly established roles and responsibilities.

❏ Do board committees, task forces and councils have charters that clearly define their roles and responsibilities?

❏ Does the current governance structure best position the entire organization for long-term success?

Sample Governance Development Calendar

A governance development calendar should be created by the board's governance committee, or other relevant committee or task force. The calendar should be approved and <u>funded</u> by the full board. The example below assumes the board meets every other month.

Month 1: *Ensure board awareness of its fiduciary duties, the differences in board vs. management roles and responsibilities, and build awareness and understanding of emerging health care trends and their implications for the organization.*

- Read, watch or participate in governance education about board fiduciary duties, and the differences between governance and management responsibilities. Engage the full board in conversation to ensure everyone is "on the same page."
- Review projected health care trends for the coming year and discuss implications.

Month 3: *Begin succession planning in preparation for two upcoming board vacancies. Build board knowledge about quality and patient safety, and the importance of engaging in deep, meaningful board discussions and deliberations in preparation for the upcoming board retreat.*

- Prepare/review and update existing trustee succession planning documents, including a trustee job description and identification of skills and experience needed on the board.
- Update the governance manual and onboarding plan in preparation for new trustees.
- Read, watch, or participate in governance education focused on the board's role in quality and patient safety, and on ensuring effective board deliberation/dialogue.

Month 5: *Onboard new trustees, understanding that the onboarding process takes time and a commitment from all board members. Conduct a board practices and performance assessment to identify opportunities for governance improvement.*

- Onboard new trustees using the board's updated governance manual. Assign each new trustee a board mentor for the first year of service.
- Read, watch or participate in governance education about the board's role in strategic planning in preparation for the upcoming board retreat.
- Implement a governing practices and performance self-assessment.

Month 7: *Use the board retreat to discuss the results of the board assessment and begin strategic thinking for the coming year.*

- Review the board assessment results and identify opportunities to strengthen the board's performance.
- Through board chair facilitation of the board retreat, maximize trustee engagement and deliberation regarding strategic issues, challenges, opportunities and future direction.

Month 9: *Build on retreat outcomes by working with the leadership team to clearly identify next steps, accountability, and checks and balances.*

- Develop a dashboard to track strategic plan outcomes and performance indicators.

Month 11: *Prepare for the organization's upcoming community benefit report and the CEO compensation and performance evaluation.*

- Read, watch or participate in governance education about building community connections and strengthening community partnerships. Discuss the board's role and commitment to meeting community needs.
- Read, watch or participate in governance education about the CEO performance evaluation and compensation process. Ensure the board's policies and procedures are up-to-date, and a sound, objective process that establishes rebuttable presumption.

Ransomware: A Growing Threat to the Health Care Industry

A hospital employee sits at her desk working. Suddenly the screen goes blank and a message is displayed: ***"You've been hacked"*** followed by instructions regarding how to pay a "ransom." She checks and all of her patient files are encrypted and cannot be read. Within minutes, this message appears on all the devices connected to the hospital's network and locks all employees out of critical files necessary to treat patients or perform any administrative services. The hospital is essentially shut down. No patient records are accessible.

In July of 2012, the Surgeons of Lake County Florida revealed that they had been the victims of such a malicious attack on their entire organization's critical data files.[1] Without these files, the physicians could not operate their business or perform patient surgeries. The files also contained the personal information of many patients—including detailed Electronic Health Records (EHRs). They were among the early victims of ransomware in the health care community. In 2015, an estimated 1,000 instances of ransomware took place each day. The federal government reports that in the first nine months of 2016, there were approximately 4,000 daily occurrences of ransomware in the United States. [2] Considering that a stunning 88% of all ransomware attacks were directed at the health care community between April and June of 2016 (the most recent period for which data exists) there is no more important industry to educate and protect. [3]

It is ultimately the board's responsibility to ensure that their organization understands the risk and is prepared to not only prevent it, but respond if the worst case scenario does occur.

What is Ransomware, and How Does it Work?

Ransomware is defined as malicious software or downloads that breach the perimeter of a computer's security, install themselves and encrypt valuable files needed for sometimes even basic use of the computer. The ransomware often spreads to other machines connected to the network and infects them as well. Shortly after, the hacker will reach out to the network's administrator and demand payment for the return of important files. The demand is often made in Bitcoin, a digital currency that is created and held electronically. The Bitcoin transaction makes the hacker extremely difficult to trace, and because patient lives can be at risk, time is of the essence in getting access returned. [4]

There are two primary types of ransomware:

- ***Lockerware:*** Hackers will lock the network's users out of all files necessary to operate the computer and render it useless. A message may pop up on the screen indicating that you've been hacked and how to pay. This type accounted for approximately 36% of all ransomware in 2015.[5] A downside to this type of ransomware is that it does not allow the ransom to be paid via the internet in Bitcoins—the most untraceable type of currency—because the computer cannot function on even a basic level.

- ***Cryptoware:*** Unlike Lockerware, Cryptoware allows the computer to still be usable, but the data is not accessible to users. This ransomware can include a timer that gives the victim only a limited amount of time to pay, although negotiating for more time to pay may be an option.[6] Because ransomware is a "volume business," the hacker may be making enough money to not care about extending timers. Symantec reports that 64% of attacks in 2015 were of this type and it seems to be the more preferred technique of sophisticated hackers because it allows the ransom to be paid online via the infected computer.[5]

With either type of hack, employees no longer have access to any patient records, causing significant disruptions in patient care with the potential for adverse impacts. Like any other emergency situation, hospitals must be prepared to transition to paper-based "offline" care without impacting the quality of care provided. According to *PC Magazine*, total lockout or file encryption happens very quickly— often within three minutes of initial infection.[6]

The Threat is Real and Growing

With an estimated 1,000 variants of ransomware released each day, it is quickly becoming a major threat to the American health care system and the millions of patients it treats.[5] From December 2015-May 2016, the United States led the world with over 50% of the total detections of ransomware.[7] In comparison, the second closest country was Italy, comprising only

13% of detections.[7] ***Health care providers are 200% more likely to suffer data breaches than other industries.*[8]** With medical data being at least ten times more valuable than other data selling on the black market of the Dark Web[9], it is not surprising these ransomware attacks continue with increasing frequency.

Americans Still Trust Hospitals, but the Risk is Rising. Considering these statistics, it is a bit surprising that 69% of Americans trust hospitals and health care organizations to keep their data safe, more than any other industry including banks and government entities.[9] At the same time, consumers are becoming more aware of the risk. According to the American Hospital Association's 2017 Environmental Scan, 62% of consumers prefer device security more than ease of use.[20] The cost to hospitals is significant: the Ponemon Institute estimates that the unplanned downtime costs health care organizations ***$7,900 per minute*** that data is unavailable for use.[10]

Privacy and Trust Implications

Another significant cost is the potential loss of reputation for the hospital or health system under attack. Under the Health Insurance Portability and Accountability Act (HIPAA) regulations, ransomware infection constitutes a security incident. In addition, it is almost always a reportable data breach as defined by HIPAA and The Health Information Technology for Economic and Clinical Health Act (HITECH).[11] Once the data is encrypted, it triggers an "acquisition" of data under HIPAA which requires disclosure to any and all affected consumers.[11] Notifying every person affected by the breach can be difficult, expensive and time consuming, leading to frustration and possible delays in care for affected patients and families.

Protecting Your Organization

In order to best protect an organization's network from ransomware, it is recommended that hospitals and health systems have layers of security on the front end with all features enabled, but understand that breaches can still happen.

A Tale of Two Hospitals: Preparedness Pays Off

In March of 2016, Methodist Hospital in western Kentucky was a victim of ransomware.[15] However, because they had regular backups to rely upon in restoring the data, they refused to pay the ransom. It is unclear how much data was lost, but they were able to recoup the vast majority via good protection on the front end. Hackers know that hospitals have critical information necessary for high quality patient care, and the money to pay a ransom. They also know that hospitals have many computers and other medical devices connected to the internet which share data, giving them more machines to target. Only one vulnerability is necessary to cause a major problem for the whole network. Health care organizations often suffer because they are four times more likely than other industries to run outdated versions of Internet Explorer—a program targeted by most ransomware.[9]

Also in 2016, Hollywood Presbyterian Medical Center of Los Angeles was a victim of ransomware.[9] They paid the ransom of approximately $17,000 to unencrypt their data. While paying the ransom did work, the hospital still experienced several weeks of an inability to treat patients due to the loss of any EHRs. Caregivers used handwritten notes and faxes, and patients had to pick up prescriptions and test results in person.[15] The hospital also incurred clean up costs of an unknown amount.

Having a response plan to an attack is essential. The Traveler's Business Risk Index of 2015 reported that fewer than 40% of hospitals have a comprehensive response plan to ransomware infection.[16] Failing to have a plan can put patient care and patient lives at stake in a cyber attack.

Examples of other notable attacks in 2016 include, but are not limited to:[15]

- **March 2016:** MedStar Health, Washington, D.C., was hit with ransomware that locked the system down for days, including Washington's Georgetown University Hospital and other medical offices in the region. A ransom of 45 Bitcoin, or $19,000 was demanded. Employees were blocked from accessing patient data, and it was reported that some patients were turned away.

- **March 2016:** King's Daughter's Health, IN, powered down all its computer systems when a single employee file became infected with ransomware. The hospital credits ongoing staff education about evolving cyber threats, which helped employees act quickly to contain the virus once it was found.

- **May 2016:** Kansas Heart Hospital was attacked by ransomware, paid the first ransom, but attackers demand a second ransom to decrypt data. The second ransom was not paid.

- **July 2016:** Marin Healthcare District in Greenbrae, CA was attacked, stemming from a ransomware attack on the health system's medical billing and electronic medical record vendor. The organization paid the ransom. Providers were unable to access patient data for more than a week.

- **July 2016:** Six sites for the New Jersey Spine Center in Chatham, NJ were attacked. The organization paid the ransom. The ransomware not only encrypted the electronic health record, but also the backup files and phone system.

- **August 2016:** Two University of Southern California hospitals were hit by a ransomware attack, but the incident was resolved without paying a ransom. Files were inaccessible to employees during the resolution period.

- **August 2016:** Urgent Care Clinic of Oxford (MS) was a victim of a ransomware attack initiated by Russian hackers. The attack occurred in early July, but staff noticed the server running slowly on August 2. The server was held for ransom for an undisclosed time.

It only takes one employee mistaking a phishing email as legitimate to breach a network. Popular phishing types of emails include those that appear to contain resumes for consideration—these are often forwarded to human resources and opened by someone with administrative access.[12]

Fake billing, shipping and invoicing emails are also used to target employees.[12] For

Ransomware: What You Can Do Now

Hospital and health system boards can proactively prevent cybercrime and prepare for potential breaches by ensuring the following:

- Provide the resources necessary to ensure the proper security systems are in place on the network

- Train staff to watch for phishing attacks, suspicious emails, and other potential signs of a real or attempted hack

- Consider hiring an expert to "hack" your network and look for vulnerabilities

- Ensure a regular back-up system is in place with the appropriate safety protocols

- Make sure staff are appropriately trained to provide care "offline" if necessary

- Ensure the appropriate leaders and IT experts within the organization have reviewed the National Cyber Incident Response Plan, a recent report from the U.S. Computer Emergency Readiness Team, Department of Homeland Security. The plan provides for a national response to cyber incidents, including those that threaten public health and safety. More information and a copy of the plan are available at www.us-cert.gov/ncirp.

this reason and to prevent the unauthorized installation of programs it is also recommended that local administrative rights be removed from all computers for which it is not essential. At the same time, it should be noted that not all ransomware requires administrative rights to install and simply gaining access to the computer is sometimes enough for infection. Training staff to spot phishing attacks and suspicious emails is critical to the health of a network. Often the fake emails or websites look very convincing or know enough about the individual targeted to mine their data.[5]
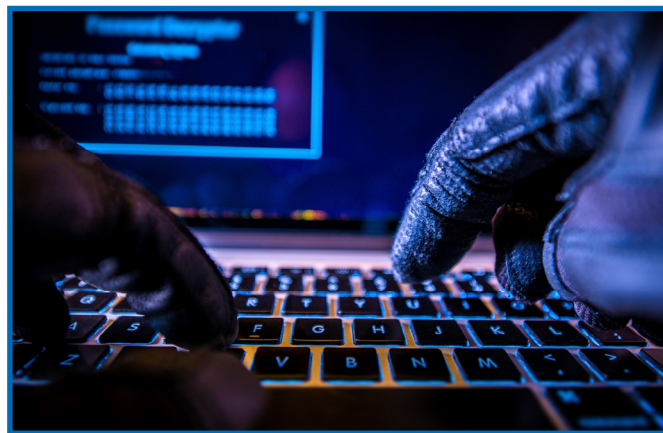
The Ponemon Institute estimates that *training staff yields a 50 times return on investment by preventing future attacks.*[10]

Within the health care industry, breaches caused by human error accounted for 40% of the total breaches in 2016, up from 28% in 2015.[13] It is also recommended that organizations hire a "white hat" hacker to actively look for system vulnerabilities that can be fixed before they are exploited.

Regular backups of all data on the network is highly recommended, and is the most effective way to avoid paying the ransom. Backups not only prevent data loss, but also allow the restoration of the system without paying a ransom, which decreases the incentive for hackers to target the network again. Backups should be disconnected from the network after every data delivery, to prevent hackers from accessing it.

The Future of "Internet of Things"

Despite firewalls, well-trained employees and other security tactics, breaches will continue. This is particularly true because of the significant increase in the "Internet of Things." As the number of devices used increases and electronic health records become more interconnected, there are more opportunities to be hacked.

A recent report predicted that ransomware attacks against the health care industry will at least double by 2018.[17] *In 2015, health care record theft was up 1100% over the previous year—one in every third person had their records breached in 2015.*[18] The FBI estimates that ransomware cost the American economy $1 billion in 2016.[19]

It's clear that ransomware is not going away. In addition to help from law enforcement, the health care industry must be alert to new threats through the use of sophisticated network security, comprehensive employee training and the use of very regular, working backups.

Content for this article was contributed by Bob Gregg, CEO, ID Experts, www2.idexpertscorp.com.

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Ten Potential Scenarios to Consider Today in Preparing for Tomorrow

By asking questions, visionary boards can identify a variety of potential scenarios and build a deeper understanding of new paradigms. Considering the various possibilities that might confront the organization in the future can help leaders prepare to act nimbly rather than reactively. It can also help boards to identify new opportunities. Below are ten questions for your board to consider now as you prepare for the future.

1. How will passage of the *21st Century Cures Act* benefit your organization? Does it change any of your strategic thinking or plans? (The Act includes funding for the National Institutes of Health to fund new initiatives, and for the Food and Drug Administration to facilitate the development of new drugs and devices. Among other provisions, the law also is expected to help hospitals treat vulnerable patients through provisions related to outpatient services, long term care, rural health care, behavioral health and opioids.) [2]

2. What might the impacts be for your organization as the ACA is repealed? What if it is repealed without "replacement" and 22 million people lose insurance coverage? [3, 4] What if the reductions in hospital payments are not restored? [4]

3. What if Medicaid is funded as a state block grant (a lump sum payment that gives states autonomy in structuring their plans with no ties to levels of coverage)? [3]

4. What if the insurance exchanges/marketplaces and subsidies are included in the ACA repeal? [3]

5. What if regulations are changed to allow insurers to sell across state lines? How might that change your competitive position and/or contracting position with insurers? [3]

6. Will pharmacy costs continue to increase? What or who might bring them into check? How might that impact your hospital pharmacy and your patients? [5]

7. Will risk-based payment models, which have been implemented in the transition to value-based care, continue as downside risks for providers come into effect? [5]

8. What impact will growing consumerism have upon your organization?

9. What if outpatient care really isn't cheaper than in-hospital care? [6]

10. Health care organizations are expected to be the most targeted sector for cyber-attacks in 2017 and new and more sophisticated attacks are expected. Yet overall hospital and health system budgets have dropped or remained the same. What if security at your organization is breached? What impact will that have on costs, public relations and community trust, market share, revenue and more? [7]

well-summarized analysis. A rapid-change health care field also means the board's strategic planning process must be nimble and the plan must be flexible enough to adapt to new information and new realities as they emerge.

Third, trustees will never know everything they'd like to know to be totally confident in every decision they make. While it may well be impossible to know everything when making decisions about the future, trustees need to assure themselves that the board is well-informed about demographic forces, economic trends, and community needs. They must be satisfied that the board has tried to identify possible changes, has questioned the likely implications and ramifications of those changes, and has deliberated thoughtfully and in good faith over its decisions. Board members must be confident that their efforts will stand up to scrutiny.

The uncertainty of the health care system is daily headline news. Now more than ever, it's critical that trustees be well-informed, use that knowledge to predict the various scenarios that might unfold and develop not only a vision for the future, but ready strategies for overcoming challenges and achieving success.

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