SDAHO
Trustees Resource Center

The Trustee Quarterly

For South Dakota Association of Healthcare Organization Board of Trustee Members   **Fall 2023**

GOVERNANCE INSIGHTS

Artificial Intelligence: Early Adopter or Not, All Boards Must Be Prepared

Whether you are aware of it or not, artificial intelligence (AI) is already impacting your organization and community. Boards must understand its potential opportunities and drawbacks and make informed AI decisions as they lead their organizations into a new era of technology impact.

All hospitals should care about artificial intelligence and how it is impacting health care. Some organizations are on the leading edge of AI and have been integrating it into their health systems for years. The technology influences how and where people access health care and decisions made by the insurance industry, policy makers, and health care leaders. It also impacts how individuals get their health care information and the accuracy of that information.

AI should be viewed as a tool that supports the human workforce, not replaces it.

What is Artificial Intelligence?

The definition of artificial intelligence is continuously evolving because the field is so fast moving. The World Health Organization has defined AI as "a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments. AI systems are designed to operate with varying levels of autonomy."[1]

Other definitions explain AI as "systems that think like humans," or "systems that mimic human intelligence." One definition clarifies that AI decisions can be "fully automated, or with a 'human in the loop.'"[1]

The "human in the loop" component is critical for health care. AI should be viewed as a tool that supports the human workforce, not replaces it.

Artificial intelligence has the potential to positively impact patient care, wellness, community health, the health care workforce, and health care costs when the right expertise is involved. This means that AI data must come from the right sources, use proper algorithms when analyzing data, and be reviewed and used by real humans who think critically before relying on the output.

Hello,
I am AI chatbot and I can do a lot of things faster than humans. How can I help?
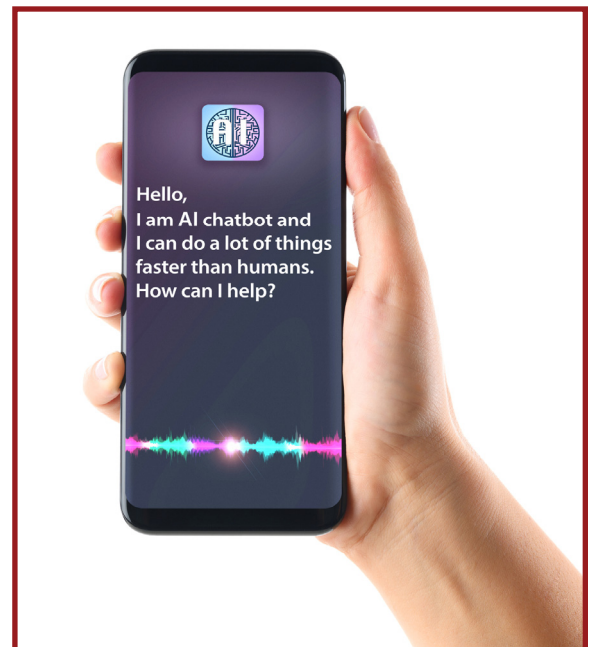
Our Perspective

Artificial Intelligence or Augmented Intelligence. Helping Our Members Understand this Next Technological Shift.

Artificial intelligence (AI) seems to be the buzz no matter the industry, location, or size of the organization. When it comes to healthcare, the use of AI is expanding and there are significant benefits for physicians and patients alike. SDAHO's role is to help our members better understand what AI is, how it will impact the healthcare industry, and how to separate facts from fiction.

First, is understanding that AI is really "augmented intelligence", not artificial intelligence. While the World Health Organization has defined AI as a "machine-based system" and may work in certain industries, those who work in healthcare know removing the human element from healthcare completely is unrealistic. AI in healthcare should be considered more of a tool to assist as needed, not a replacement.

Dr. Steven Berkowitz delivered a presentation titled "The Impact of Artificial Intelligence in Health Care - What Health Care Leaders Need to Know... Now!" during SDAHO's 97th Annual Convention. He educated the attendees by sharing a practical working definition and model for AI, reviewing critical topics and key initiatives in AI, and calling for proactive management of AI as a leadership responsibility.

To prepare for the new era of technology, it is crucial to understand the definition of artificial intelligence along with its potential benefits and risks. Healthcare leaders must also proactively manage artificial intelligence by understanding the jobs that can be optimized and the role of the human and the AI interface.

Dr. Berkowitz provided several benefits of partnering to optimize the human and AI interface and emphasized the significance of understanding the potential benefits of retooling and re-engineering jobs compared to simply increasing or reducing the workforce. To enhance the human-AI interface, it's recommended to review the objectives or purpose of the workflow by asking a few pertinent questions:

- What is the optimal role for AI and the optimal role for humans?
- How can we improve the human-AI interface?
- How can we help humans adapt to the new normal?

During the discussion, Dr. Berkowitz emphasized the importance of establishing an AI council specifically for hospitals and healthcare systems. The council's composition should include board members, executive management, healthcare providers (such as physicians, nurses, and other medical professionals), IT experts, ethicists, and community representatives. The primary objectives and challenges of the council are as follows:

- Proactively devise and put in place an AI strategy for the healthcare system.
- Prioritize and optimize AI initiatives within the system.
- Provide ongoing training and education for healthcare providers and employees.
- Collaborate with state hospital associations and other advocacy groups to address regulatory and policy issues.

Like our members, SDAHO is actively seeking information and learning opportunities on AI that we can share with our members. SDAHO will continue to share resources and education as AI continues to develop.

Spotlight Sponsors

SDAHO Enterprise was developed to pursue valued services and increase non-dues revenue. Overall goals and objectives of providing revenue to supplement SDAHO strategies and providing support and benefit to members.

Upcoming Legislative Forums

Mark your calendars and plan to join SDAHO, healthcare members, and elected officials as we host our annual legislative forums. These forums are held every year to inform legislators on important issues impacting healthcare in preparation for the upcoming legislative session. SDAHO represents healthcare members during South Dakota's legislative session to ensure a unified voice is heard regarding legislation that affects healthcare in the state.

- Monday, Dec. 11, 5:30-7pm CT | Sioux Falls, SD
- Tuesday, Dec. 12, 5:30-7pm CT | Aberdeen, SD
- Monday, Dec. 18, 5:30-7pm MT | Rapid City, SD
- Tuesday, Dec. 19, 12-1pm CT | Pierre, SD
- Tuesday, Dec. 19, 12-1pm CT | Mitchell, SD

We will announce the specific locations through our weekly newsletter. To stay updated on state and federal updates during the upcoming legislative session, and receive notifications on upcoming education and events, click here (sdaho.org/the-unified-voice-newsletter/) to subscribe to our weekly newsletter.

Do you have ideas for future issues of *The Trustee Quarterly*?

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'd like to see in future issues of *The Trustee Quarterly.*

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Artificial Intelligence Brings Great Potential

AI has powerful potential in health care, from streamlining simple administrative tasks to performing complex surgeries and enabling customized care. Potential uses of AI include:

- Reduced administrative burdens, such as improved scheduling for patients and employees and streamlined claims management

- Earlier disease detection

- Identification of preventive care needed, such as immunizations, as well as preventive services based on social determinants of health and disease patterns

- Patient monitoring, including the use of wearables and the expansion of smart homes

- Risk management, such as identifying patients with potential fall risks or medication errors

- Assistance in clinical decision-making

- Expedited drug discovery and development

- Improved patient experiences, both in-person and using electronic communications

- Real-time diagnoses, such as following medical imaging

- Precision medicine, creating specialized care unique to patients

- Robotic surgeries

Key Terminology

✓ **Artificial Intelligence (AI):** Technology that mimics the human thought process.[4]

✓ **Machine Learning:** A type of AI that learns and improves as it processes more data.[4]

✓ **Robotic Process Automation (RPA):** The use of software to handle high-volume, repeatable tasks that previously required humans to perform.[4]

✓ **Hallucinations:** When an AI tool presents false information that can be completely made up.

✓ **Diagnostic Bias:** When an algorithm (set of rules) used to make decisions has built-in bias, which could be based on race, ethnicity, or other characteristics.

✓ **Large Language Model (LLM):** A type of AI program that uses large data sets to generate text. The most well-known LLM is ChatGPT.

✓ **Chatbot:** A computer program that simulates a human conversation.

Artificial Intelligence Introduces New Risks

In the last century, reliance on technology has increased in nearly every aspect of personal and business interactions, bringing both ease and frustrations with it. AI in health care introduces a new layer of risk and reward in addition to typical technological shortcomings.

Patient and Provider Trust. Most people have experienced negative encounters with a "machine" that couldn't do what a person can. People typically trust face-to-face interactions with live human beings more than technology. If AI is not used properly, patients and providers may distrust the technology or use it improperly.

Cybersecurity and Privacy Concerns. Health care organizations already face ongoing threats of data "hacking" and cyberattacks. Increased reliance on AI brings a new level of risk, including

"evasion, data poisoning, model replication, and exploitation of traditional software flaws to deceive, manipulate, compromise, and render them ineffective."[2]

In addition to cybersecurity risks on an organizational level, patients are concerned about the privacy of their own data. Privacy concerns are heightened when personal health information is shared with a third party to "train" an AI program. When patient privacy is violated, it introduces new risks and challenges for patients and negatively impacts patient trust with their provider and the health care system.

Potential for Bias. Bias and discrimination in health care already have a negative impact on vulnerable populations. When implemented incorrectly, AI has the potential to expand existing bias or introduce new bias into the health care system. This is

called "diagnostic bias." It is important that programmers and clinicians work together to ensure that models built into artificial intelligence systems do not discriminate against people based on age, gender, sexual orientation, race or ethnicity.[3,4]

Potential for Errors. The outcome of artificial intelligence is only as good as the data being used to drive it.[4] That means that organizations must have strong systems in place for where data comes from and how robust it is, how calculations are made, and how privacy and security are maintained as data moves around.

One example of the potential for error in AI is "hallucinations." This is when an AI tool presents false information but it is presented as fact. Sometimes the information is completely made up, but may appear convincing. Whether a provider is actively utilizing AI for decision-making or not, it is a critical concept for the entire health care

workforce to understand. AI hallucinations have the potential to influence peer thinking and pre-conceived notions patients and family members may arrive with.[3,5]

Reports of Accuracy are Conflicting. In July 2023, two Dana-Farber physicians who specialize in gastrointestinal cancers experimented with ChatGPT. When asked about cancer statistics, one of the physicians reported that ChatGPT "literally made up an equation. It even gave it a name. It was an equation that does nothing, but it looked very convincing." It gave detail that was inaccurate, but continued to elaborate. A separate study also found that ChatGPT is not accurate in making cancer treatment recommendations.[6]

Studies analyzing how artificial intelligence performs real-time diagnoses have provided mixed results as well. One recent study of machine learning used to diagnose COVID-19 and predict patient risk found that none of the models were meeting their intended purpose, while another found that models had a "high or unclear" risk of bias.[7]

In contrast, a 2019 study reviewing the diagnosis of disease using medical imaging found that accuracy was nearly identical. The authors reported

> While many use ChatGPT for planning vacations or assistance with research, it is being used in health care too.

that AI was accurate 87 percent of the time and health care professionals 86 percent.[8]

How AI is Already Being Used in Health Care

There is general agreement that artificial intelligence is launching the health care system into a new era. Some studies predict that nearly forty percent of health care working hours could be supported or augmented by AI, and that half of all health care organizations plan to use ChatGPT for learning purposes.[5]

One of the powerful tools for AI in health care comes from large language models (LLM). LLMs are trained using gigantic datasets. ChatGPT is one of the most well-known LLMs. While many use ChatGPT for planning vacations or assistance with research, it is being used in health care too. Some recent examples include:

- Pennsylvania's UPMC is testing Abridge, a program that summarizes medical conversations from recorded audio during patient visits. It "listens" to patient-provider interactions and extracts important information. Notes for the EHR are automatically created.[5]

- UNC Health, UC San Diego Health, UW Health and Stanford Health Care are participating in a small generative AI pilot with Epic, auto-drafting responses to common patient questions.[5]

- Microsoft recently announced it is expanding its strategic partnership with Epic, integrating Microsoft's Azure OpenAI service into Epic's EHR platform.[10]

- Google's medical large language model "Med-PaLM 2" is being expanded to answer medical questions. According to the Google Cloud blog, Google is "looking forward to working with our customers to understand how Med-PaLM 2 might be used to facilitate rich, informative discussions, answer complex medical questions, and find insights in complicated and unstructured medical texts."[10]

Comparing Physician and AI Chatbot Responses

In April 2023 the Journal of the American Medical Association (JAMA) published a study asking whether an artificial intelligence chatbot assistant can "provide responses to patient questions that are of comparable quality and empathy to those written by physicians?"[9]

- The study used 195 randomly drawn patient questions from a social media form

- A team of licensed health care professionals compared a physician response and a chatbot response to each question

- Evaluators preferred chatbot responses to physician responses nearly eight out of ten times (78.6%)

- Chatbot responses were considered higher quality and more empathetic

There are many limitations and questions that arise from this experiment, but AI tools may be able to assist physicians in drafting messages that could reduce the time required and assist with clinician burnout.

Using Artificial Intelligence In Your Organization

Artificial intelligence in health care is already happening and will continue to grow. Successful navigation of AI for health care organizations starts with deep dialogue and future-focused thinking from board members and senior leaders. Boards that haven't already should start the conversation now.

Start Small. A good first start is to learn more about how employees are already using AI and how it may play a role in your organization and community, and start using it in small ways. For example, hospitals and health systems can implement or expand online scheduling or automated reminders. The more patients have positive experiences using technology in health care settings, the more comfortable they will be.

AI can be also used with chatbots for simple questions or to compose messages, making sure patients know that real human clinicians are using the tools to personally make their care decisions.[4]

By using AI in personalized ways, organizations can show patients that AI has the potential to be flexible and design communication and interactions catered to their unique needs.[4]

Partner with Caregivers. Work with providers to identify tools that complement the expertise and skills of existing physicians and caregivers.[3] AI should lessen the workload and improve outcomes. For example, physicians and other caregivers may find high value in AI that helps enter information into electronic health records or provide automatic note-taking. Providers may also value starting points for responses to commonly asked questions that may even help them be more compassionate without taking extra time.[3,4]

Investment in AI will only be meaningful if leaders work with providers on the front lines to know what is needed the most and can be easily integrated into daily workflows. Physicians and caregivers should be involved every step of the way.

Slowly Expand AI. Take your time launching a big investment or change in AI. Organizations that have been integrating artificial intelligence for years started by building the expertise

> **Boards who haven't already should start the conversation now.**

Wherever you are in your AI journey, don't rush the process. Start with critical dialogue and big-picture dreaming, then seek out the expertise you need to move forward.

and skills needed internally. For example, Kaiser Permanente hired its first "experience/user interface designer" seven years before sharing in a panel discussion about its tool that notifies caregivers if a patient may need to go to the intensive care unit based on deteriorating conditions. Kaiser reports that the tool has helped reduce patient mortality by 16 percent.[10]

Questions for Boards to Consider

- Are we already using artificial intelligence in our organization (in ways the board doesn't know or in ways managers may not even realize)? If yes, do we as a board understand how? If no, what are the primary barriers?

- What steps can we take now to better understand AI and start using it more in small ways?

- Have we had any big-picture conversations about AI and how it may benefit our organization and community?

- What is the general "pulse" of our employees about using AI?

- Does our board and senior leadership understand the potential risks and rewards of AI?

- Is there a business case for AI investment at our organization?

- Should we allocate resources differently to support the exploration or implementation of AI?

AI Case Examples

The American Hospital Association's *Telling the Hospital Story* includes case examples highlighting how hospitals are implementing AI. For the full stories and more examples of how big and small hospitals are using technology, see the website below.

- *Hospital Robots:* MultiCare Deaconess Hospital in Spokane, WA uses "Moxi," a four-foot-tall robot that moves around the hospital on its own to run errands like taking samples to labs, getting equipment, and delivering medication to providers. The robot is programmed with a personality that interacts with people.

- *Predicting Readmissions:* NYU Langone Health uses "NYUTron," a new artificial intelligence program that 1) reads and accurately understands doctors' notes and 2) uses them to predict whether a newly discharged patient will soon fall sick enough to be readmitted. A study showed that the program could predict about 80% of those patients who were readmitted for care. The program also assesses the likelihood that a patient may have additional conditions as well as the chance that insurance would deny coverage.

- *Detecting Strokes:* California's Sierra Vista Regional Medical Center and Twin Cities Community Hospital use an app called Viz.ai to read patients' CT scan results to identify symptoms within minutes. A physician reviews the scan in the app to confirm and then proceeds with treatment.

For these case examples and more, go to www.aha.org/topics/telling-hospital-story.

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Prioritizing Board Chair Succession Planning

Every board member is responsible for fulfilling their important leadership duties, but the board chair is the leader and role model for the board. Governance success is dependent on the chair's ability to set the proper governance culture and tone, develop trustful relationships with the CEO and fellow board members, and effectively lead board meetings.

Succession planning of the board, board chair, and CEO are essential governance responsibilities. The chair position requires extraordinary leadership qualities, and planning for future board chairs should not be taken lightly.

The Board Chair Progression

Board chairs are often selected years in advance to allow for necessary development and experience. While there is no standard "rule," before serving as board chair a leader typically has multiple years of service on the board and has served as a committee chair or board officer.[1]

Most health care boards include a vice chair or chair-elect role in addition to the board chair. The vice chair is usually elected by the board to become the next chair.

In addition, some organizations may consider the board secretary or treasurer to be the next in line to be vice chair or chair-elect. Even for organizations that use this long-term schedule, it is recommended that a leadership succession plan is in place that allows for flexibility. As organizational goals and needs change, different competencies and experiences may be needed.

Start with a Clear Job Description and Terms

A successful long-term plan for board leadership begins with setting clear expectations. The organization's bylaws should define term limits for board leadership positions, which clarifies how long board officers serve and helps the board to plan for future leadership transitions.

Term limits are important to bring new perspectives and prevent stagnation, and also allow a graceful exit for members who may not be fulfilling their responsibilities.[1] Board chairs should be re-elected every year following a performance evaluation and using a full board vote.

In addition to board terms, every board should have a written job description that outlines the chair's role and responsibilities. The description helps the board determine if a candidate is a good fit, and ensures incoming board chairs understand their responsibilities before agreeing to the role.

Unfortunately, a written board chair job description is not the norm for many hospitals and health systems. According to the 2022 American Hospital Association (AHA) National Health Care Governance Survey Report, nearly half of all boards (46%) report they do not have a board chair job description.[2]

Chair Attributes and Competencies

Defining the board chair's desired attributes and competencies ensures the right person fills the role. These qualifications are typically included in the chair job description.

Connect to the Mission. The desired attributes and competencies for each organization's board chair should be based on the hospital or health system's mission, vision, and strategies. The unique skills brought by a board chair should help lead the organization where it wants to go strategically. This requires clarifying the organization's long-term strategic direction and identifying gaps on the board that may need to be filled.

✓ **Define the roles:** Ensure bylaws with term limits and a clearly defined job description.

✓ **Identify competencies:** Create a list of desired skills, attributes and competencies based on where your organization wants to go.

✓ **Build the pipeline:** Annually identify potential future leaders and offer leadership and learning opportunities.

✓ **Prepare for the transition:** Build in mentoring and orientation.

Most Boards Don't Define What They Are Looking For. According to the AHA National Health Care Governance Survey, only 18 percent of boards report using a set of approved knowledge, skills, and behavioral competencies for selecting new board chairs.[2] When desired characteristics are not defined, boards risk selecting a new leader based on the wrong attributes, or simply based on who is convenient or available.

Examples of Chair Attributes and Competencies. Of the 18 percent of boards that do use competencies when selecting their board chair, the most commonly used criteria are past governance experience, community orientation, collaboration, strategic orientation, and knowledge of business and finance.[2]

While desired board chair attributes and competencies should be tied to unique organizational needs, some specific examples may include:

- Critical thinking, questioning, and problem solving
- Interpersonal skills, leadership experience, and the ability to handle conflicts
- The ability to work with a wide variety of stakeholders, consider varying viewpoints, and build consensus
- Effective meeting management, including ensuring all voices are heard and meetings stay on track
- The ability to partner with the CEO
- Commitment to the mission and community
- Commitment to ongoing education
- Strong public speaking and experience in leading during times of crisis
- Willingness to be a voice for the hospital or health system and an ambassador to the community

Building the Pipeline of Board Leaders

Boards should annually identify potential leaders and actively seek to develop those leaders. One of the most common ways this occurs is by inviting candidates to serve in other board leadership roles, including leading a task force, chairing a committee, or serving as a board officer that isn't chair or vice chair. This allows for broader engagement, learning, and mentoring. At the same time, these positions require a significant time commitment, and the board must consider if the addition may be a burden for already committed volunteer leaders.

When desired characteristics are not defined, boards risk selecting a new leader based on the wrong attributes, or simply based on who is convenient or available.

Clear communication about the commitment required is important. Some directors may not be interested or have the time to commit to a larger leadership role. If future leaders are difficult to identify, the board should have an open dialogue about why there aren't qualified candidates. For example, do we offer opportunities for leadership training and development? Are our job descriptions unclear or expectations too demanding?[4]

Transitioning to a New Chair

Nearly three-quarters of hospitals and health systems do not have a new board chair orientation.[2] Ideally a new board chair enters the position from the vice chair/chair-elect role and has the benefit of learning from the previous year. Even so, new board chairs should participate in a structured onboarding process and have opportunities to engage in training in areas where they need additional support.

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