The Hospital of the Future 2.0

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The concept of the hospital of the future envisions a health care facility that includes advanced technologies and innovative approaches to improve patient care and health outcomes. It will leverage technology to provide a more personalized, efficient, and patient-centered experience. Recently, *Modern Healthcare* hosted a virtual briefing, bringing together industry leaders to discuss the concept of the hospital of the future.

"In the hospital of the future, the focus will be on technology-enabled care (that is, digital transformation), staffing, and an aging population," said keynote speaker Mark Kandrysawtz, MBA, vice president and chief innovation officer at WellSpan Health. Kandrysawtz also emphasized the struggle that health care organizations have faced in the wake of the COVID-19 pandemic. He noted that the pandemic was enormously disruptive and served as a catalyst for a changing workforce, economy, and customer expectations.

Speakers highlighted 2 key strategies as vital for the future of health care:

- Advancing digital transformation
- Fostering health equity and eliminating health disparities

> "Innovation occurs in problem-rich environments."
>
> MARK KANDRYSAWTZ

WellSpan Health, headquartered in Pennsylvania, is a clinically integrated network of 2600 physicians and advanced practice providers, 8 hospitals, more than 220 patient care locations, and 20000 employees. WellSpan Health recently earned 5 MyChart Diamonds—the first health care organization in the world to achieve this designation.[1] Epic's diamond program recognizes organizations with technology that is working well and is widely used by patients.

> "Think of it [digital transformation] as a marathon, not a sprint."
>
> MARK KANDRYSAWTZ

Digital Transformation

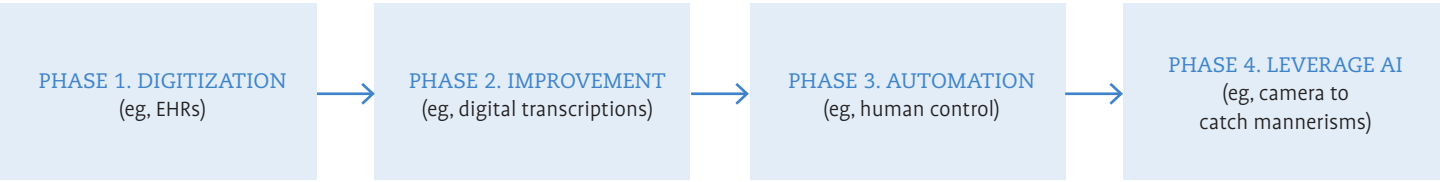
For decades, many health care tasks have been automated and digitized, such as electronic health records (EHRs) and the provision of medical care through telemedicine. These innovations have arguably made health care more efficient and effective. Through telemedicine, patients have access to virtual consultations with health care professionals anywhere in the United States, and remote patient monitoring (tracking vital signs and health parameters) allows for early detection of potential health issues from the comfort of patients' homes.

And yet, this increased use of technology can create as many, if not more, headaches than it aims to cure. The barriers to digital transformation are not technological. They are, instead, based on organizational culture, structure, and governance.[2] It will take a concerted effort by all stakeholders to prepare for changing customer expectations and advanced levels of virtual care.

Postpandemic, patients continue to seek opportunities for virtual care. "And with huge advancements in electric vehicles, it leaves us asking the question of how health care might take advantage of this proliferation?" Kandrysawtz asked. For example, health care systems could learn how to source and acquire products, how to move these products to get them at the right time, and in general, change the way we think about the purchase, procurement, and storage of materials.

Artificial intelligence (AI) and machine learning have the potential to play a significant role in various aspects of health care, including assisting in diagnosing diseases, analyzing medical images, and predicting patient outcomes. They can also help streamline administrative tasks, optimize resource allocation, and improve operational efficiency.

Figure 1. The 4 Phases of Digital Transformation



Overall, the hospital of the future will leverage technology and data-driven approaches to deliver more-efficient, personalized, and patient-centric care. It will seek to improve health care outcomes, enhance patient experiences, and optimize resource utilization. Figure 1 illustrates how digital transformation occurs through 4 phases.

Fostering Health Equity and Eliminating Health Disparities

Speakers examined health equity and health disparities through the lens of surgical patients. In a panel discussion, speakers discussed how health disparities affect a patient's ability to access and recover from surgery. In defining health equity, the speakers explored variations on a similar theme: to remove barriers to ensure everyone has access to the highest quality care, regardless of social constructs.

Two speakers discussed how they utilized robotic surgery to tackle health equity. Morehouse School of Medicine, based in Atlanta, Georgia, shared its experience in implementing robotic surgical education. It chose to tackle health equity because the community and patients deserve the best possible care, and it is fully capable to educate and train learners. Shaneeta M. Johnson, MD, MBA, FACS, FASMBS, professor of surgery, shared that after implementing robotic surgery, it saw significant cost savings, and improvements in patient length of stay, shorter recovery times, decreased patient pain levels, decreased mortality rates, and increased patient satisfaction.

> "Inequities that exist are very relevant, whether we are referring to rural or urban America."
>
> JOSEPH V. SAKRAN

Comparably, the University of Utah's Huntsman Cancer Institute shared its experience in implementing advanced minimally invasive robotic surgery. Brian Mitzman, MD, MSci, FACS, FCCP, director of robotic thoracic surgery, noted it is the only NCI-designated institution for the Mountain West Region. Meaning, patients come from hundreds of miles away to get care. The institute's focus on health equity includes building affiliations with local hospitals across its service area to provide care to patients where they live.

At Johns Hopkins Medicine, minimally invasive robotic and laparoscopic surgery is the standard of care for many patients. In fact, the integration of robotics has proven to improve patient outcomes, including patient length of stay and minimizing the number of conversions to open surgery. "Surgery is a time when people are at their most vulnerable," said Joseph V. Sakran, MD, MPH, MPA, FACS, executive vice chair of surgery and director of clinical operations of surgery, "we look to provide the best possible care to all patients." The robotics program at Johns Hopkins boasts a safer, reproducible approach to surgical procedures that is available 24/7 to patients.

Lessons Learned

The speakers also shared lessons learned from their work combatting health disparities and promoting health equity. Sakran noted, "health equity cannot be addressed in a silo. Try to understand that to be successful, you have to break down silos and work together across sectors." Mitzman said, "referring doctors don't know what they don't know; patients need enhanced recovery pathways. [It is important to] go into the community to inform physicians and patients about what to expect from their care, including the updated standards of care." And, finally, Johnson stressed the importance of collaboration. "Collaboration allowed us [at Morehouse] to gain resources to keep pace with others in the area."

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References

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ICYMI: *Oncology Issues* covered Modern Healthcare's 2022 virtual briefing on the Hospital of the Future, which focused on access and staffing challenges.[3] Read about it here.