

Human-Centered Technology: The Value to Hospitals

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Since the invention of the first computer, people have been using technology to solve complex problems. Like other businesses, hospitals invest heavily in technology, as they strive to meet regulatory requirements like ICD-10 and EMR implementation, and provide the highest level of healthcare to their communities. The Forrester Group predicted that healthcare technology spending would grow by 8.8 percent in 2019, with about 10 percent of that earmarked for “transforming the business.”

The Cost of Technology Goes Beyond the Price Tag

However, deploying more and more technology that adds functionality -- but also adds more administrative workload for the end user -- has not proven to be a viable path to better patient care. Today, nurses spend twice as much time interacting with technology as they do interacting directly with patients. Nurses spent one-third of their time using technology, compared to 7.2 percent of their time spent on bedside patient care, and less than 9 percent on assessing and interacting with patients.

At its core, healthcare is about serving patients and is based on human interaction between patients and caregivers. Adding more technology tools for nurses to manage can cause poor nurse-patient communication.

What is Human-Centered Design?

Human-centered technology is designed with empathy for the individuals who will ultimately use it. Human-centered design originated in the 1980s as computer and software developers began designing interfaces based on what the user wants and needs in ways that make the users' work easier.

The key to wisely leveraging technology is to make technology purchase decisions not solely on capabilities or the price or what the hospital down the street is launching. As importantly, technology decisions must keep in mind the impact they will have on the people using it – the nurses, support staff, patients, and patient families.

Considering technology from the human-impact lens is known as human-centered decision-making. It means choosing technology based on its ability to have a positive impact on the user, whether that is improving communication, enhancing connection, helping people work more efficiently, or reducing stress and burnout.

Making Smarter Healthcare Technology Decisions

For all the industry headlines around improving the patient experience and nurse satisfaction, there's a surprising “humanity deficit” when it comes to hospital technology purchase and implementation decisions. Fewer than one in five healthcare organizations has a set of human-centered criteria for assessing and implementing technology. Most buy and implement technology based primarily on price and functionality.

Human-centered design is not a one size fits all approach. Rather it starts by taking into account the unique needs of each user. Begin by understanding the value and the purpose of the system. Who will use it, and what is its purpose? Involve users in evaluating technology. How does it make their jobs easier?

Things to Consider

There are several things to consider when selecting human-centered technology.

- 1. Easy for nurses to use.** Nurses already spend only a small percentage of their shifts in direct patient care. Look for options that integrate with the EMR platform used throughout a nurse's shift, with no additional logins or new platforms to manage. The goal should be to help a nurse solve problems without creating new workload.
- 2. Easy to learn.** New technology purchases should require only a minimal amount of time to learn. Prioritize solutions with simple, intuitive interfaces. With minimal training, nurses should be able to confidently use the product themselves, and guide patients in its use where appropriate.

- 3. Easy to implement.** Choosing a platform that easily integrates with multiple systems ensures the hospital is maximizing its IT investments. Look for solutions that require little or no additional hardware investment or lengthy implementations that disrupt patient care and require IT staff resources.

Results if Addressed

Hospitals taking a human-centered approach to technology purchase decisions can expect improved efficiencies, enhanced nurse and patient satisfaction, better nurse-patient communication and improved outcomes. Considering the impact to end-users when evaluating and selecting technology can help the hospital avoid technology purchases that aren't used and don't show a return on investment.

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