



Taking a human-centered approach to vaccination

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In the world of internet and mobile technologies, some of the most well-known companies such as Google and eBay are putting human-centered design (HCD) at the center of their processes, according to Wired. These companies prioritize the creation of more user-friendly experiences through design.

HCD is a discipline in which the needs, behaviors, and experiences of an organization's customers (or users) drive product, service, or technology design processes.

"The fact is that patient centricity has not been the driver of the way we've designed healthcare experiences so far," said Amy Bucher, PhD, the behavior change design director with Portsmouth, N.H.-based design agency Mad*Pow, during an interview with *Becker's Hospital Review*. "Patient-centered design may help us reach more patients and help protect our communities."

Several examples suggest that incorporating HCD into healthcare supports stronger patient engagement. According to a 2013 health policy brief published in *Health Affairs*, patients who are more involved in their care tend to experience better outcomes. As a result, many public and private health care organizations are employing strategies to better engage patients, such as educating them and involving them more fully in making decisions about their care.

Putting the Human in Human-Centered Design

Context is key and understanding each patient's unique situation and the challenges of everyday life is necessary to uncover unmet needs and the emotions that drive behavior. For example, in one recent strategy project with Cincinnati Children's Hospital, HCD research led providers to improve empathy with patients and create better alignment between business objectives and patient and family needs.

The hospital's mission was to create a respectful, intuitive, empathetic, and stress-free experience for all patients and family members. Partnering with Mad*Pow, they embarked on a journey to ensure that the patient experience remains a core focus as they evolve and grow. They wanted to empathize with patients and gain an in-depth understanding of what children and families go through as they cope with acute and chronic conditions that sometimes require years of ongoing intensive care.

Mad*Pow helped build empathy between patients and providers through live on-location observations, staff shadowing, and a 5-week digital patient journal study. Their goal was to better align business objectives and patient and family needs by focusing on high-impact, high-value initiatives. This work kept the leadership conversation centered on the patient experience, positive

outcomes, and long-term, high-impact investments to maintain a competitive edge and provide the care that patients expect.

Dr. Bucher stated that while the widespread incorporation of HCD in healthcare should have been prioritized a long time ago, the current healthcare environment is embracing a more patient-centered approach – including HCD – due to several industry-wide changes, such as value-based care.

"As healthcare changes, there's more and more of a focus on patient responsibility and patient accountability," Dr Bucher said. "I think as people start to get involved in this conversation as well as their actual bodies and their health, [more will become] interested in learning about ways in which they can participate more [in their care]."

Patient-centered preventive care through human-centered design

A focus on prevention is fundamental to improving population health goals, keeping in mind the patient should be the primary focus.

Disease prevention can be more of a human problem than a purely scientific one. Another approach may be needed, one that takes individual human emotion, context, needs, and desires into account. HCD may do just that. The prospect of integrating HCD into the healthcare system holds great promise, especially with regards to disease prevention.

Vaccination in the Preventative Care Strategy

Vaccination is an essential component of any comprehensive preventative care strategy. Despite the proven benefits of vaccination, rates for certain preventable illnesses remain well below the US Department of Health and Human Services' Healthy People 2020 targets, which were established in 2010.

Healthcare system leaders must emphasize the implementation of preventive strategies to achieve population health management. Vaccines are evidence-based interventions that may prevent certain infectious diseases and may assist healthcare organizations as they strive to improve quality of care.

"We know that the more people who are vaccinated, the better we are at preventing preventable diseases in our communities," YiDing Yu, MD, an internal medicine physician with Newton, Massachusetts-based Atrius Health, told Becker's. "But face it, shots are hard to take, no matter how tough you are. If we were patient centered, we would ask: How can vaccines be painless? How can we deliver vaccines most conveniently? Patient-centered design may help us reach more patients and protect our communities."

Jennifer Briselli, vice president of experience strategy and service design at Mad*Pow, concurs. "If a hospital or clinic really embraces patient-centered experience, they're going to empower those clinicians by giving them the resources and training they need to feel comfortable having those conversations and feeling like they've got the information they need to have a powerful, persuasive conversation," Ms. Briselli said. "So, if I'm a doctor and I know this mom is going to respond to this type of message, I'm empowered to tailor what I'm saying in a way that's going to resonate with her."

Gundersen Health System, based in LaCrosse, Wisconsin, did just that. By empowering their staff with the education needed to handle patient/parent vaccination hesitancy, the engagement was tailored to the concerns of the patient/parent. This resulted in an increase in vaccination rates.

Promoting vaccination through design may be as simple as broaching the subject of vaccination prior to the visit. The patient portal or other preferred outreach methods (such as videos or mailers) could prepare parents and patients for an upcoming vaccination by proactively sending a tailored, electronic, vaccine-specific alert informing them that the provider may administer a vaccine during the next visit.

Making appropriate education available based on previously expressed preferences, concerns, and knowledge level could also help improve vaccination acceptance. If patients are unaware of vaccine availability when they visit their physician, they may feel unprepared when it is eventually brought up by the care team. Presenting information to patients about vaccines before they interact with providers may help overcome this discomfort and barrier to acceptance.

"Even if it's just a few minutes before the parent [and] child [go] in to see this physician, it's at least given them a little bit of lead time to get their head in the space where this is no longer news out of the blue," Dr. Bucher said.

"Physicians also may not offer consistently strong recommendations for all vaccines and all patients, an inconsistency that could be partially resolved with clear reminders in the EHR," Ms. Briselli said.

The Health Information Technology Experience

This is an age where you can go onto an electronic device and order anything from eggs to electronics to patio furniture for home delivery. Whether connecting with healthcare providers through the internet or telehealth, patients of all generations are likely to use some form of technology when making healthcare decisions. So as HCD is used to shape healthcare delivery, implications for technology may be considered.

Health information technology (HIT) can benefit the patient and provider experience. Utilizing HIT before, during, and after a patient visit can impact the patient experience.

Examples of vaccine HIT patient engagement opportunities for consideration:

- Vaccination appointments can be made for the same day
- Schedule vaccine appointments by email or through the patient portal
- Pre-visit vaccination reminders are sent to the patient prior to the visit
- Technology is used to educate patients on vaccine-preventable diseases (videos)
- Communication strategies targeted to young adults are used to promote awareness of vaccination
- Social media is used to promote disease awareness During a telehealth visit, patient is advised of preventive services and scheduled for vaccine-only visit
- Portal allows patients to view recommended preventive services, including recommended vaccinations
- Patients are reminded to come in for future vaccine appointments (text, mail, portal)

According to Modern Healthcare's most recent CEO Power Panel Survey, September 2018, the vast majority (94.4%) of CEOs surveyed said they are making investments in technology to improve patient care. About 97% have deployed mobile apps to engage and interact with patients.

Further, 80.6% said they have invested in apps for providers. Clearly, HIT offers many opportunities for innovation to impact population health goals.

Call to Action

Health system executives have started to re-evaluate how they engage and interact with patients in their care as consumer expectations increasingly demand more personalized and less fragmented healthcare experiences. CEOs are taking approaches to address the new demands, but technology remains a major challenge due to its complexity.

HCD is a systematic approach to problem solving that holds empathy at its core and encourages its practitioners to return repeatedly to the context, emotions, needs, and desires of the key stakeholders for whom they are developing their solutions. The tools of HCD, used in conjunction with evidence-based data, hold much promise in providing an optimal approach for advancing disease prevention efforts.

The healthcare industry appears to have a disconnect between the industry's goal to improve the patient experience and its failure to make greater strides. Getting there may require a commitment to HCD; however, most health systems continue to innovate for patients, instead of with patients. The potential key is to include patients throughout the development lifecycle; it's not enough to get their input only at the beginning and then at the end. ■



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