

Pharmacy Automation and Technology

Digital Health Solutions: An Important Tool in Patient Engagement

Brent I. Fox, PharmD, PhD, and Brian Pinto, PharmD, MBA†*

Hospitals and health systems are facing increased pressure to improve quality and outcomes while reducing expense. Quality-based reimbursement models are providing the necessary incentives for health care institutions to focus on issues such as avoidable hospital-acquired conditions and 30-day readmission rates. While our health care facilities certainly play a vital role in achieving optimal outcomes, patient engagement remains at the center of these efforts.

Population health management is a major focus of those who pay for health care services and those whose professional responsibilities include optimizing health and wellness for patient groups. We have also explored population health management in this column, because we believe in the pivotal role for health information technology (HIT) to enable and support better management of health for large groups of people.

You are likely to see several types of patient groups at your institution. Based on a recent report of digital health consumers,¹ hospitals and health systems can stratify population segments based on their level of health and engagement. The first group includes patients who are “health conscious” and have no chronic problems. These patients are likely the ones that you rarely, if ever, encounter as inpatients. They do the things they should to maintain healthy lives (eg, exercise and eat right). Another group includes patients who are “young and indifferent” to their health. They do not have chronic health conditions and are least likely to be engaged in health and wellness. The patients in the third group are challenged by chronic health conditions, but they are mindful of their health. They recognize the importance of being engaged in their own health care. The last group is made up of patients who have chronic conditions, but they are in denial. They do not take steps to address their health or participate in their care.

Although you must engage all patients in their care for best outcomes, the greatest challenge you face is with the chronic health population. The proportion of US adults with chronic disease is staggering. According to the Centers for Disease Control and Prevention, nearly 50% of US adults have at least 1 chronic health condition, and 25% of adults have at least 2 chronic health conditions. In 2010, 7 of the top 10 causes of death were due to chronic disease.² Heart disease, diabetes, and obesity are the primary chronic diseases affecting US adults. However asthma is also important as it affects nearly 19 million adults,³ with a higher prevalence among racial and ethnic minorities.⁴ Among adults with asthma, 58% have uncontrolled disease⁵ leading to increased medical costs and decreased productivity.

Lack of adherence to medication therapy is a significant problem⁶ resulting in poor outcomes⁷ and disease control.⁸ For patients with chronic disease, adherence to medication is an important component of their care. Some diseases can be monitored, which supports the patient assuming an active care management role. For example, innovative tools have been approved by the US Food and Drug Administration (FDA) and are available to help patients monitor their asthma and manage their medication adherence. Asthma control can also be measured using something as simple as a 5-item questionnaire. Innovative tools and even a simple questionnaire require an engaged patient. How do you engage your patient population?

*Associate Professor, Department of Health Outcomes Research and Policy, Harrison School of Pharmacy, Auburn University, Auburn, Alabama; †Assistant Director, Department of Pharmacy, The Johns Hopkins Hospital, Baltimore, Maryland

Thinking about the 4 groups and your institutional approach to partnering with patients for health management, which group would you target first with technology-enabled tools for health and wellness? One argument is that the sickest (and likely those who consume the majority of the health care dollar) should be the starting point. A counter argument is that those who are already engaged in their own care should be the first. This is a reasonable approach because individuals who are already engaged in their care will naturally want to explore new ways to continue their current activities.

Ultimately, your institution should have strategies to engage all 4 populations. The young and indifferent individuals do not see a need to worry about their health, and they may not necessarily care about the outcome of the tools you offer. They may, however, be drawn to tools that they find “fun.” This is similar to the concept of gaming in health care where games are used, especially with children, to provide an environment the user enjoys while almost covertly getting the user to learn or think about health-related topics. Patients with chronic disease who are health conscious will likely be much like healthy individuals who do not have chronic disease – they will appreciate the opportunity to engage their health and your health system through technology-based tools. Individuals who are in denial regarding their chronic disease present the most difficult challenge. With this group, you must start with addressing their acknowledgment of their health status. Until they are willing to improve their health, your institutions’ efforts will likely be unsuccessful.

As always, pharmacy should be front and center on all efforts that have a medication management component, including those efforts that involve technology-based interventions. Expertise in the

medication use system is central to development and deployment of patient-focused solutions that “touch” your patients. We encourage your comments on experiences at your institution (contact Brent at foxbren@auburn.edu and Brian at bpinto@jhmi.edu).

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