

IT ROUNDUP: PART II

No Patient Left Behind: Ensuring Health Care Equity in Health IT

Mita Goel, MD, and Urmimala Sarkar, MD

Dr. Goel is assistant professor of medicine, Feinberg School of Medicine, at Northwestern University and Dr. Sarkar is assistant professor, Division of General Internal Medicine, University of California, San Francisco, and Center for Vulnerable Populations, San Francisco General Hospital.

The role of technology in health care is growing exponentially, as consumers increasingly turn to the Internet for health information (61%, according to the Pew study)¹ and as federal legislation incents the “meaningful use” of health information technology (HIT) in health systems. For primary care physicians caring for diverse populations, the HIT revolution brings both promise and concern.

Patient-facing HIT, particularly patient portals, have the potential to lower barriers to accessing personalized health information and health care providers. Furthermore, patient portals constitute a part of meaningful use of HIT in the 2009 HITECH Act and thus are expected to be widely implemented. Although features of patient portals vary by vendor and institution, most allow for enhanced communication between health care providers and patients through features such as secure messaging with providers, lab results review, and simplified processes for prescription refills and scheduling appointments. These features, if designed well, have significant potential for allowing patients and providers to continue self-managing chronic illnesses and well care, even outside of traditional visits. Much of this potential remains unrealized, as interventions appropriate for limited-literacy and limited-English-proficiency settings have not yet been integrated into usual primary care.

On the other hand, a growing body of evidence suggests that the HIT revolution in health care is unequal. The “digital divide,” or lack of access to technology, is known to exist at the level of health systems² and among our patients, as low-in-

come and racial/ethnic minority populations continue to lag behind in Internet access.³ We and others have also found that older individuals, racial/ethnic minority populations, and those with limited health literacy and educational attainment are less likely to use an Internet-based patient portal. This leads to the concern that health benefits emanating from HIT will disproportionately help well-resourced populations and thereby exacerbate existing health disparities.⁴ While we acknowledge the importance of health system and provider-facing HIT, we focus below on the critical importance of patients’ ability to effectively use HIT, particularly patient portals, to self-manage their health.

Based on studies describing disparities in the uptake of portal technology, providing universal access to high-speed Internet or patient portals themselves would not be sufficient to address current disparities.^{3,5,7} Ensuring equitable uptake and use of patient portals requires a coordinated effort from web designers, health systems, health care providers, and patient communities. First, patient portals are designed at a high level of technical complexity. Second, systems-level barriers such as awareness of the portal, differential offering of the portal to certain patients, and availability of training and technical support to patients all might influence patient portal uptake. Third, individual patient-level barriers such as lack of perceived value in patient portal technology or lack of motivation to enroll should also be addressed through the development of targeted interventions. Addressing these barriers in a systematic, coordinated manner is es-

sential for promoting equity within institutions introducing or expanding their patient portals.

Thus, implementation of patient portals requires attention to the needs of diverse populations throughout the continuum of development and use. Vendors should incorporate robust usability testing, and portals should be appropriate for those with limited health literacy, who are less likely to adopt even a cutting-edge patient portal.⁸ For example, complicated enrollment instructions, requirements of complex usernames or passwords, or poor design of portal features may prevent patients from enrolling in or using the patient portal. In turn, health care systems need to ensure universal awareness of the patient portal and its features, as well as access and ability to enroll patients. This would require several steps, including developing and providing compelling informational materials in simple language and in non-English languages as needed by the broader patient population. To maximize exposure to information, materials would need to be distributed using print, audio, and Internet-based channels. Currently, some health care systems require providers to individually invite patients to participate in the patient portal, which may lead to unequal access to the portal, particularly if providers are susceptible to unconscious stereotypes or bias that prevent regular provision of portal access. To promote equity, all patients should have equal opportunity to enroll in the patient portal. Patient-facing interventions to promote use of the patient portal—through Internet-enabled computers located in waiting

continued on page 2

IT ROUNDUP: PART II

continued from page 1

rooms, peer health educators, or community leadership—should also be part of efforts to ameliorate digital disparities.

These proposed interventions highlight the importance for health care institutions to partner with vendors, providers, and patient communities to maximize the uptake and use of patient-facing technologies in an equitable manner.

References

1. Fox S, Jones S. Americans' pursuit of health takes place within a widening network of both online and offline sources. Washington, D.C.: Pew Research Center's Internet and American Life Project and the California HealthCare Foundation, June 2009.
2. Jha AK, DesRoches CM, Shields AE, et al. Evidence of an emerging digital divide among hospitals that care for the poor. *Health Aff* 2009; 28(6):w1160-1170.
3. Sarkar U, Karter AJ, Liu JY, et al. Social disparities in Internet patient portal use in diabetes: evidence that the digital divide extends beyond access. *J Am Med Inform Assoc* 2011; 18(3):318-21.
4. Frohlich KL, Potvin L. Transcending the known in public health practice: the inequality paradox: the population approach and vulnerable populations. *Am J Public Health* 2008; 98(2):216-21.
5. Roblin DW, Houston TK, Allison JJ, Joski PJ, Becker ER. Disparities in use of a personal health record in a managed care organization. *J Am Med Inform Assoc* 2009; 16(5):683-9.
6. Goel MS, Brown TL, Williams A, Hasnain-Wynia R, Thompson JA, Baker DW. Disparities in enrollment and use of an electronic patient portal. *J Gen Intern Med* 2011; 26(10): 1112-6.
7. Yamin CK, Emani S, Williams DH, et al. The digital divide in adoption and use of a personal health record. *Arch Intern Med* 2011; 171(6):568-74.
8. Sarkar U, Karter AJ, Liu JY, et al. The literacy divide: health literacy and the use of an internet-based patient portal in an integrated health system—results from the diabetes study of northern California (DISTANCE). *J Health Communication* 2010; 15 Suppl 2:183-96.

SGIM