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 TEXT:
   Health information technology (HIT) can promote higher quality, lower costs, and increased patient and clinician satisfaction. Yet small practice settings (where the vast majority of patient care is provided) have been slow to adopt HIT products and services. Successful adoption requires close attention to office workflow, or how tasks are organized and resources used to achieve outcomes. HIT improvements in the small physician office setting are achieved through strong leadership, strategic planning, process reengineering, change management, and customizing IT systems to match and support desired office workflows and health care outcomes.

   Health information technology (HIT) can help reduce medication errors and improve the quality of patient care. [n1] It can support increased efficiency in care delivery and cost reductions. [n2] There is, however, a sizable adoption gap: Hospitals and large physician practices have adopted HIT at much higher rates than small practices. [n3] Only 11.3 percent of practices with ten or fewer physicians have fully implemented electronic health records (EHRs). [n4] This difference in adoption has a practical impact on most Americans. Four-fifths of physicians work in small practices; they account for 88 percent of all outpatient visits. [n5] To fully realize the promise of HIT, we must understand and overcome barriers to its adoption in small practices.

   On 5 April 2005 the National Institute for Health Care Management (NIHCM) Foundation convened a panel of leading national experts--including practitioners, consumer advocates, researchers, consultants, vendors, and policymakers--to gain insight into HIT adoption in small practices. [n6] Although NIHCM acknowledged the importance of financing and interoperability issues, we chose to focus on the critical but neglected topic of office work- flow, and how it is facilitated or hindered by IT. We defined workflow as the interaction patterns among a practice's staff as they fulfill tasks and produce outcomes using available resources. [n7] This brief report summarizes key themes arising from expert panelists' HIT experiences and identifies open issues.

   Lessons From The Field

   The universe of small physician practices encompasses diverse delivery systems with complex workflows that are poorly addressed by standardized HIT systems. Classifications of practices by clinical specialization or size may need to be expanded to include such factors as the patient population served, dynamic reimbursement models, whether the practice belongs to a managed care plan, and staffing. These sources of heterogeneity highlight workflow differences in small practices and have important implications for the widespread integration of HIT systems. Small-practice heterogeneity also renders it difficult to make standardized recommendations about optimal system design of HIT products and services.

   Tough Questions

   Customization versus mass production. Given the large number and variety of practices, panelists noted a tension between the need for inexpensive, mass retail systems and the need to tailor HIT products to meet the needs of individual practices. "Stripped-down" hospital IT systems were not seen as the answer. Opinions differed widely regarding systems implementation strategies: whether HIT should be

implemented in small practices all at once or piecemeal, whether clinicians should be allowed to participate on their own schedules or financial incentives should be used to encourage timely adoption, whether training should be on or off site, and whether dedicated technologists are necessary for success. (Relative to large settings, small practices have far fewer technology support resources.) Panelists agreed that HIT must match and support the desired workflow.

Automation versus transformation. Some panelists were particularly concerned about the widespread perception that IT integration is merely a matter of automating current practices. They advised system redesign to fulfill goals such as using HIT to simplify processes for patients, providers, and clinical staff; encouraging HIT adoption by adapting systems to current workflows; and solving privacy concerns. Panelists warned that quality improvement was not an automatic consequence but needed to be explicitly considered. They emphasized the need for "future visioning" as a precursor to adopting new technology: "I don't think it can be overstated, how important it is to focus on the vision, not of universal IT adoption, but of health care delivery transformation. If we put a computer on every physician's desktop and digitize our current health system now, we will have failed miserably," observed Peter Basch of MedStar Health.

Robert Wah of TRICARE put it this way: "Make sure you know what you need to do your job better, to make your clinic run better, before you go and embrace a technology. Oftentimes we see...this showroom syndrome: Providers go to a big meeting and they come back with the biggest, brightest, shiniest box...and they think this is going to solve all of their problems, without really thinking about what they need. And then they open the box and find out that it doesn't do what they want it to, because they haven't really thought about what they needed."

Organizational change management. HIT adoption requires more than structuring, designing, or buying a system. It involves organizational change, which requires strong leadership, clear formation of objectives, solving existing organization and interpersonal problems, and establishing psychological ownership from all staff. According to Nancy Lorenzi of Vanderbilt University, sabotage rates on hospital information systems are as high as 35 percent. Communication and active change management are keys to cultural change.

Panelists noted that organizational change must be motivated, for instance, by a "killer application" that all clinicians will want to use and by creating appropriate and effective incentives that help move small practices toward higher quality and efficiency.

Benefits To Diverse Stakeholders

Well-integrated HIT has the potential to greatly improve patient care. Panelists who successfully made the leap to HIT described immediate and long-term gains for their clinicians, consumers, and the public health system. In the short term, patients and clinicians appreciated the greater flexibility and efficiency in scheduling, communication, prescribing, disease management, chart review, and education. Practices that redesigned their workflows discovered fewer interruptions and a natural ability to deliver comprehensive care, including preventive services. Clinicians who had successfully integrated HIT systems stressed their ability to better address patient concerns. According to Richard Baron, a Pennsylvania internist, "We don't know the answers to the questions [patients] ask, and patients, I think, increasingly expect us to know, because of their experience [with] technology in every other aspect of their lives... I think the goal is being able to meet visions and expectations, competently." In a profound illustration of the benefit of HIT, David Kates of WebMD Practice Services described a doctor who learned from a patient's EHR that a routine procedure in her practice setting had proved life-threatening to the patient in another setting and was thus able to avoid endangering the life of the patient.

Before the long-term benefits of HIT in the small practice can be realized, panelists believed that additional central issues must be addressed. For example: What is the role of medical specialty organizations in promoting HIT adoption? How can small practices be supported, in a scalable fashion, as they make the transition to HIT? How will data stewardship concerns be addressed? Ultimately, the panel looked toward a transformed health care system in which consumers participate in health self-management through their personal health record; clinicians experience greater work satisfaction because they can

access the knowledge they need; and the public health system, through regional integration, is able to facilitate higher-quality care.

REFERENCE:
[n1.]

Institute of Medicine, Crossing the Quality Chasm: A New Health System for the Twenty-first Century (Washington: National Academies Press, 2001).

[n2.]

U.S. Government Accountability Office, HHS National Health IT Strategy, Pub. no. GAO-05-628 (Washington: GAO, May 2005), 16.

[n3.]

A.M. Audet et al., "Information Technologies: When Will They Make It into Physicians' Black Bags?" Medscape General Medicine 6, no. 4 (2004), www.medscape.com/viewarticle/493210 (29 June 2005; registration required).

[n4.]

D. Gans et al., "Medical Groups' Adoption of Electronic Health Records and Information Systems," Health Affairs 24, no. 5 (2005): 1323-1333.

[n5.]

D.A. Woodwell and D.K. Cherry, "National Ambulatory Medical Care Survey: 2002 Summary," Advance Data from Vital and Health Statistics no. 346 (Hyattsville, Md.: National Center for Health Statistics, 2004); and American Medical Association, Physician Socioeconomic Statistics, 2000-2002 Edition (Chicago: AMA, 2001).

[n6.]

Conference participants, in addition to the authors, included Clay Ackerly, Centers for Medicare and Medicaid Services; Peter Basch, MedStar Health; David J. Brailer, U.S. Department of Health and Human Services; Carolyn Clancy, Agency for Healthcare Research and Quality; Carol Cronin, consultant; Michael Fleming, Family Doctors; Melinda Jenkins, Columbia University; David Kates, WebMD Practice Services; Charles Kennedy, WellPoint Inc.; Nancy Lorenzi, Vanderbilt University School of Medicine; Robert H. Miller, University of California, San Francisco; Simon Samaha, Copper Health System; Warner Slack, Harvard Medical School; Joseph Smith, Arkansas Blue Cross and Blue Shield; Susan Thomas, GE Healthcare Technologies; Robert Wah, Office of the Secretary of Defense/Health Affairs; and Robert Williams, Deloitte Consulting.

[n7.]

J. Lee and A. Shartzer, "Health IT and Workflow in Small Physicians' Practices," April 2005, www .nihcm.org/AHRQ-QandA.pdf (2 August 2005).