

ISSUE BRIEF

Health Information Technology

May 2009

Connecting the Dots: Linking Meaningful Use of Health IT to Health Care Reform

Introduction

Health information technology (IT) has the potential to serve as an important tool for achieving the goal of significantly improving the quality and efficiency of our health care system. Whether or not health IT fulfills that promise, and whether or not health care reform leads to substantial changes in care delivery, will depend critically on legislative and administrative decisions in the coming weeks. Considering how policies to promote the use of health IT can complement and reinforce, other health care delivery reforms will thus be essential to the ultimate success of health care reform.

Although health IT can help improve care for patients – especially those who have complex medical needs – there has been limited uptake of health IT systems among providers. Recent surveys of U.S. health care providers have found that only 9 percent of acute-care hospitals and 13 percent of physicians have an electronic health records system in place.^{1,2} Even these low numbers may overstate the use of health IT; only 1.5 percent of acute-care hospitals had an electronic health record (EHR) system that was used by all of the hospitals' major clinical units.³ And, despite consumers' interest in electronic access to their health information, only 1 percent of those surveyed had used a Web-based personal health record (PHR) in 2007.⁴

For many health care providers, especially those in small practices, EHRs are prohibitively expensive to purchase and maintain. It has been estimated that installing an in-office EHR system costs a practice \$25,000 to \$45,000 per physician and system upkeep requires an additional annual outlay of \$3,000 to \$9,000 per physician.⁵ Learning to use these technologies also requires a substantial time commitment, discouraging providers who often already feel overburdened by administrative tasks. Consumers have also been slow to use health IT, due to concerns about the privacy and confidentiality of their personal health information or simply a lack of familiarity with the technologies.⁶

Low rates of uptake are also closely tied to the little demand and reward for information use in the health care system, which stem from the volume- and intensity-based incentives at work under the current approach to reimbursement. For instance, although health IT can help physicians coordinate care for patients, they generally receive no reimbursement for doing so; as a result, physicians have little incentive to use health IT for that purpose. Patients, physicians, and the health care system at large will reap the greatest benefits from health IT – that is, improved quality of care at lower cost – if efforts around adoption are closely coordinated with other changes in the delivery system, including payment reform and quality measurement activities.

The passage of the American Recovery and Reinvestment Act of 2009 (ARRA), along with the possibility of health care reform legislation, has sparked intense discussion about new opportunities for health IT. The bill provides approximately \$36 billion in new payments for health IT intended to improve quality and slow growth in costs. These payments would be made available through Medicare and Medicaid to physicians and hospitals for the meaningful use of health IT, with the definition of meaningful use to be finalized by the end of 2009. The incentives created by these payments can be a key factor in the broader drive to minimize waste and build greater accountability into the U.S. health care system.

Proposed Definitions of Meaningful Use

In recent months, there has been much debate over what meaningful use should include, with multiple experts and stakeholders releasing their own principles and preferred definitions. For instance, hearings in late April 2009 held by the National Committee on Vital Health Statistics explored the issue in detail, soliciting feedback from government officials, consumer advocates, health care providers, and leaders of regional health IT initiatives, among others. Many argued that the approach to meaningful use should encompass patients' access to their electronic health information, validate health improvement through information use, and be phased in over time in a practical manner. The Healthcare Information and Management Systems Society, a non-profit membership organization focused on the effective use of health IT, also advocates a phased approach to defining meaningful use and proposes that, as the system of incentives progresses, health IT should be required to have additional capabilities in order for providers to receive bonuses or avoid penalties.⁷

As stated in the document recently released by the Markle Foundation, health IT is meaningfully used if employed to improve care and restrain health care cost growth and if patients have access to their electronic health information. The Markle document emphasizes that meaningful use should be defined in the first years of the incentive program based on the types of data that are already being exchanged, with initial areas for improvement under the incentives program to include medication management and coordination of care.⁸

The Department of Health and Human Services will use the input from these and other efforts to formulate its definition of meaningful use of health IT and related performance specifications.

Health IT Payments in the Broader Reform Environment

The health IT bonus payments are only one of several new payment incentives to improve care quality that will likely face health care providers in the coming years. For instance, the Medicare program is almost certainly going to continue, if not expand, its pay-for-reporting initiatives in the years ahead, which pay physicians bonuses for reporting on a pre-specified set of quality measures. Pay-for-performance initiatives also require physicians to report on quality measures but pay physicians based at least in part on the results of those measures. Further payment reforms that may be applied on a broader scale in the coming years include payments to medical homes, bundled payments, and accountability-based payments.

Medical home payments could be made available to primary care physician practices that provide preventive care services and effectively coordinate care for patients, especially for patients with chronic illnesses. These payments could be disbursed to physicians in addition to fee-for-service reimbursement. In addition, the bundled-payment system approach would pay providers a single fee to cover the entire duration of care for a patient's particular health problem.

Finally, under an accountability-based payment model, physicians and hospitals participating in an Accountable Care Organization (ACO) would work toward cost-savings benchmarks based on local historical cost trends and care improvement targets. ACOs that achieved quality and cost goals would receive from participating payers a portion of the savings resulting from the ACOs' efforts. This model avoids an overly prescriptive approach to quality improvement, allowing participating providers to use care delivery strategies tailored to local populations. ACOs also maintain current referral networks and can function within a fee-for-service system.⁹

Taken together, such payment reforms could amount to substantial new support for reforming care. These multiple efforts will have the greatest impact if they work together to motivate care delivery innovation and cost and quality improvements, rather than creating additional administrative burdens or conflicting pressures for health care providers.

Meaningful Use Based on Meaningful Impact

Consequently, a unified approach to funding incentives for health IT adoption available through ARRA could help drive significant improvements in care delivery. One way to achieve this goal may involve focusing less on what health IT *is* and more on *what it can produce* – leading to a definition of meaningful use that, like other reforms intended to improve care, is based on having a meaningful impact on patient care. After all, if health IT did not have the potential to increase the efficiency and quality of health care delivery, there would be little reason to promote the adoption of health IT tools in the first place. This view of meaningful use focuses on the ultimate goal of health IT – improving health – rather than on the technical aspects of health IT systems.

Measures Needed to Determine Meaningful Use

Performance measures will be integral to validating meaningful use, as they can indicate whether or not payments for health IT use are actually facilitating improvements in health. Under this approach, providers might qualify for the health IT meaningful-use bonus if they used electronic systems for timely reporting on an increasingly sophisticated range of measures, as well as demonstrated improved health care and reduced cost growth. Such bonuses would thus drive health IT adoption and integration of clinical data, producing better information on whether care is improving as a result.

These health improvement measures could include concrete proxies for actual improvements in health. These might include, for example, those that reflect providers' electronic coordination of care for their patients since health IT should, at minimum, permit timely exchange and integration of patient information, such as across important care transitions. If health IT improves such transitions, providers should eventually be able to report electronically on measures that reflect the sharing of patient data. Such measures could be termed "sufficient statistics" – they cannot be calculated unless health IT is being successfully used to integrate data as required for care coordination. Providers might also be required to report measures of outcomes, medication adherence, and resource use, for example, duplicate tests and readmissions, in order to fulfill the meaningful use criterion.

Additional measures may be needed to reflect the privacy and security capabilities of health IT systems, addressing patients' concerns about preserving the confidentiality of their health data. Similarly, meaningful use should include measures to evaluate patients' access to their electronic health information, and easy mechanisms to export this information to consumer tools of their choosing. Such access may allow patients to make more informed decisions about their care; furthermore, patients rights to see this information is established in the Health Insurance Portability and Accountability Act (HIPAA) and reinforced in ARRA.

This approach could also be applied to measures of whether providers are producing the patient data needed to populate patient-controlled personal health records (PHRs). This might include, for example, rewarding health care providers that supply reliable and complete patient information to the PHRs at a patient's request. PHRs such as those developed by Google and Microsoft currently import information from some pharmacies, laboratories, and providers, and the number of connections between such products and other data sources is likely to increase rapidly.

Over time, as more electronic systems are used to exchange more and richer clinical data, more comprehensive and useful measures of results will be possible, including measures related to resource utilization and costs. However, anticipating how such measurement capability is likely to unfold is important, as measures incorporated into a definition of meaningful use need to be described in advance to support planning by providers. Conversely, under this approach, intermediate measures related to the process of health IT adoption should not be included in a definition of meaningful use because health IT adoption alone is not sufficient to improve patient care.

The Challenges of Meaningful Use

This results-based approach to health IT adoption is not without its challenges. Performance measures must still be developed or improved in order to evaluate the impacts of health IT on care quality more precisely; health IT may be an important factor in quality of care, but it is only one of many factors. Furthermore, many measures assess provider processes rather than patient outcomes and health improvements; focusing on processes may result in overlooking some of the important potential of health IT to support innovations in care delivery. Most quality measures also do not fully capture how well providers coordinate care for their patients.

Meanwhile, health IT and quality improvement incentives have not been well-aligned in the past, yet it is crucial that these elements of the incentives program be well-developed by 2010 so that providers clearly understand the steps they need to take to achieve meaningful use and are not forced to make costly, last-minute adjustments. If these incentives are not aligned correctly, health IT may not meaningfully reinforce – and perhaps may even be detrimental to – providers' efforts to improve quality.

This approach to meaningful use recognizes that, in the short run, all providers do not need to adopt health IT systems with identical or comprehensive capabilities. Not only is it often impossible for providers with no health IT experience to implement complex systems, but it may also be counterproductive to specify the particular capabilities that a health IT system must possess. The quick pace and unpredictable nature of innovation guarantee that current health IT systems will eventually become obsolete; if technical requirements fail to keep pace with innovation, providers may adopt expensive technologies that are out-of-date. At the same time, health IT tools used by providers must have some data-analysis and measure-reporting capabilities.¹⁰ In their absence, systems will not give providers the information they need to help them assess and improve the care they provide, and providers will continue to face significant administrative burdens in reporting on quality of care.

Instead of dictating the capabilities that health IT systems should possess, policymakers could provide guidance on the results the systems are expected to produce over time, and allow providers some flexibility in determining how those results should be achieved. This way, systems can evolve over time while always focusing on the impacts of health IT on patient outcomes rather than on technology requirements.

Efforts to promote effective use solely through a focus on the technical aspects of health IT – standards, interoperability, and network development – demonstrate how difficult it is to produce change on a broad scale while concentrating on technical issues. Standards currently available for structuring data exchange and integration are underused, and it is possible to provide meaningfully integrated data even where standards are not fully developed. It is also critical to note that basing incentives on results rather than capabilities can help promote the development and use of standards, since this results-driven approach provides standards developers with a motive to concentrate their efforts on more practically relevant standards. At least initially, measurements for evaluating

meaningful use should be focus on care improvement goals, such as medication management and care coordination, which rely on information types that are electronically available, are possible to improve now, and are important to patients.¹¹

One example of how this might work is the Primary Care Information Project (PCIP), an effort created by the New York City Department of Health and Mental Hygiene. The project provides EHR software and extensive technical assistance to primary-care providers who serve significant numbers of Medicaid and uninsured patients. As of October 2008, PCIP had helped 843 providers successfully adopt EHR systems.

PCIP is a practical, goal-driven health IT initiative to improve key health outcomes. EHR-enabled practices participating in the project can generate and track their own performance measures. Their EHRs send only summary measures to a secure Quality-Reporting System (QRS), which allows practices to judge their performance against that of their peers. Practices participating in the quality-reporting pilot program, known as NYC Health eHearts Rewards, download a software patch that allows them to automatically send summary reports to the QRS. Practices will be eligible to receive up to \$20,000 per physician for improving patient aspirin use, blood pressure control, cholesterol control, and smoking cessation or counseling, indicating how well patients are managing cardiovascular-disease risks. Physicians will receive larger bonuses for patients who have co-morbidities or are on Medicaid or uninsured.^{12,13}

Linkages to Greater Accountability and Value

The definition of meaningful use described above allows for the coordination of health IT incentives with the quality improvement incentives being considered in the context of broader health care reform. These include payments for quality reporting or performance; payments for care coordination, such as medical home payments; and “accountable care” payments for improving outcomes and reducing cost trends. Fully integrating incentives for quality improvement with new health IT incentives would drive the same health impact and outcome expectations across programs. It would also help accomplish two key goals: the meaningful integration of clinical data and meaningful quality reporting on measures that are important to patients – not just process measures.

Linkages between quality improvement initiatives and requirements for health IT adoption can also pave the way for further payment reforms targeted to improve care quality that depend on focused health goals and robust measure collection. Over time, as payment policies are altered to include greater accountability for care delivery, the potential of bonus payments to improve care will increase. This in turn will provide an even stronger impetus for the development of meaningful, clinically sophisticated measures of quality and cost.

While developing requirements for health IT adoption and other payment reforms, policymakers need to remain aware of the fact that providers perceive health IT implementation as costly, time-consuming, and difficult.¹⁴ The health IT adoption process is likely to significantly disrupt established provider workflows as providers learn how the technology works and how it can be effectively applied. In order to become successful health IT users, providers may require extensive technical assistance, as the experience of initiatives like the PCIP demonstrates. Given the challenges associated with adopting technologies that can meaningfully improve care, policymakers must align bonuses for health IT adoption with overall payment reform objectives and approaches. Doing so can actually reduce the overall burden on providers and give them more resources to address areas of care delivery where improvement is needed.

Having systems in place to automatically generate measures will actually decrease the administrative inconveniences, such as conducting reviews of patients' charts and filling out paperwork, that often accompany quality-reporting initiatives. Most important, the measures produced by health IT systems would also help assure that that new health IT funding intended to improve care is actually doing so.

Conclusion

ARRA has created a unique opportunity to promote health IT adoption through incentive payments for providers who use electronic tools in a meaningful way. Providers should be able to meet these requirements, but only if their systems allow them to demonstrate actual improvements in health. In order to have the maximum impact on care delivery and thus on health, the overall objectives of meaningful-use bonuses and other quality-reporting and payment incentives must be well coordinated. Otherwise, providers will be subjected to increasing administrative burdens and may see little value in participating in these initiatives.

Billions of dollars in new payments to support health IT and other health care reforms are coming, with no less of a goal than transforming the quality and efficiency of the American health care system. These reforms have the potential to reinforce each other, creating much more powerful financial support for improving care delivery while helping reduce administrative burdens on providers. If done right, these reforms can generate critical momentum for broad health care reform – as well as better, more affordable care for all Americans.

¹ A.K. Jha et al., "Use of Electronic Health Records in U.S. Hospitals," *New England Journal of Medicine* 360, no. 16 (2009): 1628-1638.

² C.M. DesRoches, et al., "Electronic Health Records in Ambulatory Care — A National Survey of Physicians," *New England Journal of Medicine* 359, no.1 (2008): 50-60.

³ Jha, et al., "Use of Electronic Health Records in U.S. Hospitals."

⁴ R. Steinbrook, "Personally Controlled Online Health Data —The Next Big Thing in Medical Care?" *New England Journal of Medicine* 358, no. 16 (2008): 1653-1656.

⁵ Congressional Budget Office, *Evidence on the Costs and Benefits of Health Information Technology* (Washington, DC: CBO, May 2008). Available at: <http://cbo.gov/ftpdocs/91xx/doc9168/05-20-HealthIT.pdf>.

⁶ D. Blumenthal et al., *Health Information Technology in the United States: Where We Stand, 2008* (Massachusetts General Hospital and the School of Public Health and Health Services at George Washington University: June 2008). Available at: <http://www.rwjf.org/pr/product.jsp?id=31831>.

⁷ HIMSS, "Definition of Meaningful Users of Certified EHR Technology," 27 April 2009, http://www.himss.org/content/files/2009HIMSS_DefUseEHRUsers.pdf (accessed 6 May 2009).

⁸ Markle Foundation, Connecting for Health, "Achieving the Health IT Objectives of the American Recovery and Reinvestment Act: A Framework for 'Meaningful Use' and 'Certified or Qualified' EHR," (New York, NY: Markle Foundation, April 2009). Available at: http://www.markle.org/downloadable_assets/20090430_meaningful_use.pdf.

⁹ Engelberg Center for Health Care Reform and Dartmouth Institute for Health Policy and Practice, "Reforming Provider Payment: Moving Toward Accountability for Quality and Value." (Washington, DC: Brookings Institution, March 2009). Available at: [http://www.brookings.edu/events/2009/~media/Files/events/2009/0311_aco/issuebriefacofinal.pdf](http://www.brookings.edu/events/2009/~/media/Files/events/2009/0311_aco/issuebriefacofinal.pdf).

¹⁰ Markle Foundation, Connecting for Health, "Achieving the Health IT Objectives of the American Recovery and Reinvestment Act: A Framework for 'Meaningful Use' and 'Certified or Qualified' EHR."

¹¹ Markle Foundation, Connecting for Health, "Achieving the Health IT Objectives of the American Recovery and Reinvestment Act: A Framework for 'Meaningful Use' and 'Certified or Qualified' EHR."

¹² F. Mostashari, M. Tripathi, and M. Kendall, "A Tale Of Two Large Community Electronic Health Record Extension Projects," *Health Affairs* 28, no. 2 (2009): 345-356.

¹³ Primary Care Information Project, "NYC Health eHearts Rewards," 2009, <http://www.nyc.gov/html/doh/html/pcip/ehearts.shtml> (accessed 6 May 2009).

¹⁴ C.L. Goldzweig, et al., "Costs and Benefits of Health Information Technology: New Trends from the Literature," *Health Affairs*, 28, no. 2 (2009): w282-w293.