

Meaningful Use of Electronic Health Records The Road Ahead

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ON JULY 13, 2010, THE DEPARTMENT OF HEALTH and Human Services released the final criteria defining “meaningful use” of electronic health records (EHRs). The aim behind these rules is to improve quality and efficiency of care by encouraging approximately 700 000 clinicians and 5000 acute care hospitals to use EHRs. With approximately \$30 billion in incentives and the threat of reduced payments for those that fail to comply, meaningful use may represent the single most potent federal effort to change health care delivery in the past 2 decades. For practicing clinicians, the origins and likely effects of this rule may be opaque. It would be helpful to understand the motivation behind the key components of the meaningful use rules, where they are likely to take the US health care system (and the obstacles along the way), and the benefits and risks of a rapid transformation from paper to electronic record systems.

Why Meaningful Use?

The Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009, part of the stimulus bill, allocates approximately \$44 000 for each practicing clinician and between \$2 million and \$10 million for each hospital that qualifies as a “meaningful” user of EHRs. Although efforts to tie financial incentives for meaningful use are not new (this was articulated in previous bills that did not pass), the current Congress was quite prescriptive about defining meaningful use, stipulating that it include electronic prescribing, health information exchange (sharing clinical data among clinicians and hospitals), and automated reporting of quality performance. The final meaningful use rule incorporates these 3 challenging requirements that clinicians and hospitals must meet to receive incentive payments. Other requirements include electronically recording key parts of a patient’s history (detailed demographics, vital signs, active medication and problem lists, smoking status), creating care-summary documents, and implementing at least 1 clinical decision support tool. Functions that are optional (for now) include the ability to generate lists of patients with specific conditions, using EHRs to provide patients with educational materials, performing medica-

tion reconciliation, and submitting key data electronically to public health entities. Many clinicians and hospitals will struggle to achieve these goals in a timely fashion.

Why did policy makers impose a high bar? Concerned by data showing that simply adopting EHRs was inadequate to substantially improve care, policy makers focused on scientific evidence supporting use of electronic prescribing, coupled with decision support, to improve quality¹ and widespread sharing of clinical data to lower costs.² In addition, Congress required automated reporting of quality performance to augment existing efforts to increase transparency. Each of these 3 required elements is difficult: implementing electronic prescribing can be highly disruptive and few EHR systems can currently support exchange of clinical data or automated gathering and reporting of quality measures.

HITECH, Meaningful Use, and Adoption of EHRs

When President Obama first declared the goal of near universal EHR use by 2014, approximately 10% of hospitals³ and 20% of physicians⁴ were using these systems, and even fewer could meet the preliminary definition of meaningful use.⁵ Adoption of EHRs has been increasing at about 3% to 6% per year.^{3,4} If HITECH incentives double or triple these rates (which is generous because adopting EHRs alone is not adequate to qualify for meaningful use), achieving universal EHR use by 2014 will remain difficult. The challenge is enormous: a majority of US physicians work in practices with fewer than 5 physicians and few currently use EHRs.⁴ Without successfully converting these practices, widespread EHR use will be an elusive goal. Tracking their adoption rates over time will provide a critical early signal.

Another hurdle is ensuring that clinicians and hospitals that disproportionately care for the poor do not fall behind; early data suggest that they have fewer electronic functionalities needed to meet meaningful use.⁶ The HITECH Act allocated extra funding for these clinicians and hospitals, although Congress designated state Medicaid agen-

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cies as the vehicles for distributing funds to them (as well as to others, such as children's hospitals). Medicaid agencies are facing swelling ranks of patients due to the recession and the need to plan for the large Medicaid beneficiary expansion authorized by the Patient Protection and Affordable Care Act. There are concerns as to whether these agencies will be capable of effectively administering HITECH funds to qualifying clinicians and hospitals.⁷ This problem is avoidable—but states must act now to ensure timely provision of funds to those who disproportionately care for the poor.

Meaningful Use and Health Care Quality and Costs

Meaningful use provisions will help improve legibility of clinical records, reduce prescription errors, improve adherence to guidelines, improve patients' access to their records, and ensure that clinicians and hospitals are capable of exchanging clinical data. These are essential first steps. However, for HITECH to be transformative, substantive payment system changes are needed. Although meaningful use makes greater integration and coordination of care feasible, hospitals and clinicians need incentives to actually integrate and coordinate care. Despite good intentions, the Accountable Care Act leaves intact a system that primarily rewards quantity over quality and fragmentation over integration, offering little hope that meaningful use will have more than a modest effect. The administration has hinted that starting in 2013, meaningful use may become more stringent, requiring clinicians and hospitals to demonstrate improved outcomes.

A major concern is the speed at which Congress requires meaningful use of EHRs. Incentives began in fiscal year 2011 (which began October 1, 2010) and are front-loaded over the first 2 years. During this short time, hundreds of thousands of clinicians and hospitals will change the way they practice medicine, transitioning from paper-based records to EHRs. This will happen while knowledge of how to implement EHRs safely and effectively is in its infancy.¹ Many of these transitions will be poorly executed, some with serious consequences. Poorly designed or poorly implemented EHR systems can cause as much harm as good.^{8,9} Reports of failed adoption and patient harm are likely to emerge. Keeping the frequency and impact of these failures low should be a top policy priority. One approach is to create systems to

monitor errors from EHRs and their implementation and use these data to improve future systems.¹⁰

Meaningful Use as a Harbinger of Change

Meaningful use, coupled with large financial incentives, may signal the beginning of the end of health care as a cottage industry. Congress and the Obama administration have made plain that the practice of medicine needs to change. However, the challenges to a successful transition to 21st century medicine are substantial, including low baseline EHR adoption rates, lack of knowledge about how best to implement EHRs, groups of clinicians and hospitals vulnerable to falling behind, and lack of incentives for collaboration and integration. These barriers are not insurmountable but require dedication and buy-in both from patients and those who care for them. They also require a payment system that rewards quality and efficiency. The current health care system is failing and EHRs are essential to making substantive and lasting changes in health care delivery. Only time will tell if HITECH delivers on its promise to modernize US medicine into the high-quality, integrated system of care that all individuals deserve.

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