Health Information Technology in the United States:
Driving Toward Delivery System Change, 2012

Executive Summary

HARVARD School of Public Health

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Chapter 1: Progress on Adoption

Chapter 1 analyzes data on electronic health records (EHR) adoption from the 2011 National Ambulatory Medical Care Survey and the 2011 American Hospital Association supplemental Health Information Technology (HIT) survey, and examines changes in adoption since 2008. In addition, this chapter assesses physicians' and hospitals' intention to apply for meaningful use incentives, and their progress toward meeting meaningful use requirements.

Key Findings:

- Physicians reporting use of any EHR reached 57 percent in 2011, a substantial increase from 17 percent in 2002, while adoption of at least a basic system grew from 12 percent to 34 percent over the same time period. The rate of adoption of at least a basic EHR system increased more quickly among primary care physicians, younger physicians, practices of three or more physicians, and those in the Northeast region of the United States.
- Rates of adoption of at least a basic EHR were highest among physicians in Minnesota (60.9%), Wisconsin (59.9%), and North Dakota (57.9%). States with the lowest rate of adoption among physicians were Louisiana (15.9%), New Jersey (16.3%), and South Carolina (19.5%).
- In 2011, 52 percent of all physicians indicated that they intended to apply for meaningful use incentives; however, only 10.5 percent reported both an intention to apply and an ability to meet the required functionalities.
- Basic and comprehensive EHR adoption in U.S. hospitals has increased substantially between 2010 and 2011, with basic EHR adoption increasing from 11.5 percent to 18 percent and comprehensive EHR rising from 2.6 percent to 8.7 percent.
- Adoption of at least a basic EHR increased more rapidly among the following groups of hospitals, as compared to their counterparts: larger organizations, teaching hospitals, and those located in an urban area.
- Eighteen percent of hospitals were able to meet a proxy measure of readiness for meaningful use (12 functions implemented in at least one major clinical unit), while an additional 33.6 percent reported they were close to meeting the requirements (between nine and 11 functions implemented in at least one major clinical unit). Although more than half of hospitals either meet or nearly meet meaningful use, 7.5 percent of hospitals have yet to implement any meaningful use functionalities.

Chapter 2: Health Information Exchange Under HITECH: Early Findings

In Chapter 2 we review the most recent data on the progress and challenges of health information exchange (HIE) at the local level. We examine state-level approaches to increasing the use of HIE under the Cooperative Agreement Program. Finally, we discuss implications and potential future policy-making activities at the federal level to bring the electronic exchange of health information across the health care system.

Key Findings:

- There are 80 regional health information organizations (RHIOs) currently in operation in the United States. An additional 82 are in their planning stages.
- Fourteen percent of U.S. hospitals and 3 percent of U.S. ambulatory practices participate in RHIOs.
- States are pursuing a variety of implementation models to foster the expansion of HIE under the Cooperative Agreement Program.
- Suggestions for future federal policy-making include: incentivizing other stakeholders to support care coordination across the health care continuum; monitoring how that information is exchanged through all providers in the market; and aligning other incentive programs to promote health information exchange.
- A case study of the *Aligning Forces for Quality* grant in Central Indiana exemplifies the barriers to public reporting even when an advanced HIE is in place.

Chapter 3: "The Next Steps Are Always Easier Once You've Started"

In his interview with Dr. Michael Painter, Dr. David Blumenthal reflects on his time as national coordinator in the Office of the National Coordinator for Health Information Technology. He highlights the numerous roles of HIT and HIE in the health care industry, in addition to the challenges of their implementation. Furthermore, Dr. Blumenthal provides insight into the effectiveness of HITECH and the importance of continuing to track adoption and registration for meaningful use.

Key Findings:

- Although building the infrastructure for HIE is a first step, Dr. Blumenthal indicates there are many other social, economic, and cultural barriers to overcome to create a meaningful HIE.
- Dr. Blumenthal outlines the importance of independent, objective analysis and reporting of EHR adoption rates for government, especially in highly politicized climates and organizations.
- Dr. Blumenthal recognizes that now is the time to use these government incentives for health information technology because this funding has likely reached its peak.
- In response to the United Kingdom's recent reports that the country may abandon their effort to implement a national electronic health record, Dr. Blumenthal states that it is not comparable to the United States. The U.K. plan was structured as a top-down procurement effort, while the U.S. plan was structured as a bottom-up incentive.

Chapter 4: Enabling Meaningful Delivery System Reform Through Health Information Technology and Promising New Health Care Models

In this chapter, we discuss the importance of HIT in successful health reform models, including the patient-centered medical home (PCMH) and the accountable care organization (ACO). This chapter examines the supports and barriers to HIT implementation in addition to the effect of policy on the state of HIT development.

Key Findings:

- HIT will allow ACOs to share data by integrating networks of providers to effectively manage care of patients across their continuum of care. However, even hospitals with the most advanced EHR systems may not have the necessary capabilities of a fully functioning ACO.
- A key challenge for ACOs is holding responsibility for patients who receive health care they cannot track outside the ACO. Although it is not feasible in the near future, a nationally operational HIE would address this potential issue.
- Current meaningful use regulations may be inadequate to support the needs of an ACO. For example, many providers, including mental and behavioral health, skilled nursing facilities, rehabilitation and long-term acute care hospitals, are excluded from the program. If these groups do not adopt HIT, it will be very difficult for ACOs to track and manage care in these settings, which are among the most expensive and least well-coordinated.
- HIT infrastructure can enhance many primary care functions critical to a successful PCMH, including referral tracking, quality measurement, clinical decision support, and disease registries.
- Currently available EHR technology may not sufficiently support all of the technology needs required for a fully functional PCMH. For example, many systems lack registry functions which are critical for shifting toward a more proactive approach to care of the entire patient panel. Further, most EHR systems lack functions such as team messaging which are essential to the intrateam communication required in a functional patient-centered medical home.
- Technology that is not yet in widespread use in the health care marketplace, such as segmentation modeling and natural language processing, may close gaps in the current widespread HIT functionalities needed for required ACO and PCMH processes.
- Opportunities exist to leverage PCMH and ACO delivery redesign with HIT adoption in order to integrate efforts toward safer, more effective, less costly care. But doing so will be a large challenge because of the inadequacy of current EHR systems, provider practice constraints, and misaligned payment models. Current efforts around meaningful use are a helpful start but inadequate for getting the kinds of functionalities we will need to effectively manage population health (which is at the heart of these delivery system reform efforts). Policy-makers need to begin to pay attention to the HIT needs of PCMH/ACO implementation in order to help these delivery reforms meet their promise.

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