Electronic Health Records and the Value of Health IT

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ABSTRACT

BACKGROUND: An important component of improving the quality of care provided to Medicare beneficiaries involves the development of integrated medical records, which provides all of a patient’s medical information in one easy-to-access location. As a result, electronic collection and reporting of health information has become a key focus of the Centers for Medicare & Medicaid Services (CMS).

OBJECTIVES: To explore the potential benefits of electronic health records (EHR) and the use of integrated health information technology (IT) in the provision of quality care to Medicare beneficiaries.

SUMMARY: The use of EHR has the potential to lead to improved patient outcomes, increased efficiency, improved communication with payers and hospitals, and improvements in billing and reimbursement. However, the substantial costs of creating EHR systems have limited their adoption at many smaller practices and institutions. According to 1 study, which evaluated the investment required of solo and small physician practices, initial costs averaged $44,000 per physician with ongoing costs averaging $8,400 per physician per year. Therefore, it is critical for organizations with limited resources to assess the value of such an investment. As with pay for performance (P4P), CMS is developing a number of demonstration projects to reward the provision of high-quality care that is supported by the use of EHR by physicians. Among the electronic recordkeeping projects being promoted by CMS, electronic prescribing (E-Rx) is perhaps the area that has received the most attention, due in part, because CMS has proposed standards for E-Rx that are scheduled for implementation as early as 2009.

CONCLUSIONS: CMS has identified the electronic collection and reporting of health-related information in the form of EHR as a key to overall efforts to improve the quality, effectiveness, and cost of health care in the Medicare system. With such support from CMS, it is anticipated that the United States will increase the use of health IT as part of the overall focus to improve patient outcomes and efficiencies in health care delivery.

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Introduction

Among the keys to improving the quality of care that is provided to Medicare beneficiaries is the development of an integrated medical record, so that all of the patient’s medical information is available in one location and easily accessible to all clinicians providing care to that patient. Therefore, the Centers for Medicare & Medicaid Services (CMS) has identified electronic collection and reporting of health-related information in the form of electronic health records (EHR) as a central objective in the effort to improve the quality, effectiveness, and cost of health care in the United States.

The presumed benefits of EHR are substantial: improved patient outcomes, increased efficiency, improved communication with payers and hospitals, and improvements in billing and reimbursement. However, many practitioners have hesitated to purchase electronic medical record systems because they believe the cost of adopting such systems far outweighs the financial benefits likely to be realized at the local level. Therefore, the United States continues to lag behind other

FIGURE Status of Health IT in the United States

Only 28% of U.S. primary care physicians have electronic medical records (EMRs), and only 19% have advanced IT capacity.

PERCENT REPORTING EMR

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<tr>
<th>Country</th>
<th>Percent Reporting EMR</th>
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<tr>
<td>NZ</td>
<td>89</td>
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<tr>
<td>UK</td>
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<td>US</td>
<td>23</td>
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PERCENT REPORTING 7 OR MORE OF 14 IT FUNCTIONS*

<table>
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<tr>
<th>Country</th>
<th>Percent Reporting 7 or more of 14 IT Functions*</th>
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<tr>
<td>NZ</td>
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*The 14 functions are: EMR, EMR access other doctors, outside office, patient; routine use electronic ordering tests, prescriptions, access test results, access hospital records; computer for reminders, Rx alerts, prompt test results; easy to list diagnosis, medications, patients due for care.


EMR = electronic medical records; IT = information technology; Rx = prescription.

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developed countries in the use of health information technology (IT) (Figure).1 According to a report from the Commonwealth Fund Commission on a high performance health system, all health care providers should be required within 5 years to use an EHR and participate in information exchange networks that will link health information across clinical settings.1

Assessing the Value of Health Information Technology
Implementation of an EHR system requires a significant expenditure of resources regardless of an organization’s size. Assessing the value of investing in an EHR system is critical, particularly at small- and medium-sized organizations with more limited resources. According to a study that looked at the cost benefit of implementing EHR in 14 solo or small-group practices, initial costs averaged $44,000 per physician with ongoing costs averaging $8,400 per physician per year.2 Despite these costs, Miller et al.estimate that the average practice would cover the expense of the EHR within 3 years and begin profiting from the cost savings generated by the system.2 Savings came from 2 main sources: increased coding levels that led to improved billing and greater efficiency from a decrease in personnel costs.2

CMS Demonstration Projects
In 2008, CMS is developing a new, 5-year demonstration project intended to reward the provision of high-quality care that is supported by the adoption and use of EHR by physicians. CMS hopes that this initiative will broaden the implementation of EHRs and health IT and transform the way medicine is practiced.3 All practices involved in this project must have an EHR system that is Certification Commission for Health Information Technology (CCHIT)-certified within 2 years. For this demonstration, physician practices must use EHR for procedures that benefit patient care (e.g., clinical documentation, ordering and recording lab tests, ordering prescriptions).3 They will receive financial incentives according to how they perform on a series of specific clinical quality measures (not specified) and will receive bonuses based on the degree of health IT functionality used to manage patient care. Payments for all 5 years may reach up to $58,000 per physician or $290,000 per practice.4 The project is recruiting practices in locations where the demonstration is likely to enhance existing or planned private sector projects related to health IT and quality-reporting initiatives.4

Electronic prescribing (E-Rx) is a part of electronic record keeping that has received the most attention from CMS. In fact, CMS has proposed standards for E-Rx that were released April 2008 for implementation in 2009. These standards cover 6 areas, including formulary and benefits information, exchange of medication history, structured and codified sig (to ensure standardized codes for patients’ instructions for medication taking), fill status notification, clinical drug terminology, and prior authorization.5 CMS anticipates that savings of $95 million to $410 million will be realized due to increased use of generics with E-Rx implementation.6 In addition, CMS has predicted that community pharmacy would save as much as $65 million to $242 million of costs with E-Rx, as a result of reduced administrative and dispensing costs at 25% implementation of E-Rx.3

Challenges for Integration
As noted, many clinical settings have been slow to adopt EHR. According to a national survey of 2,758 physicians, only 17% reported having an electronic health records system in their practice as of 2007–2008.7 This stems primarily from the financial barriers to purchasing these systems and physician concern about return on the initial investment.7 For some clinicians, EHR systems are viewed as a source of potential legal liability in that they may facilitate inappropriate access to patients’ medical information.7

From the perspective of the health plans, implementation of an EHR system can bring challenges in terms of integrating the technology into clinical workflow, the costs of technology upgrades, and providing sufficient training and support to help clinicians and staff make the transition from paper to electronic records. For implementation to succeed, clinical staff must accept and use EHR.

Despite these challenges, it is anticipated that greater all-around support for EHR will increase the use of health IT in the United States as part of an overall strategy to improve patient outcomes and efficiencies in health care delivery.

Conclusions
Developing integrated medical records is an important strategy toward quality of care improvement for Medicare beneficiaries. EHR enables all clinicians to easily access a patient’s medical information. CMS has recognized the potential of EHR to improve the overall quality and effectiveness of health care delivery and also reduce costs, and has made it a key focus to enhance patient care. Despite the potential benefits of electronic medical records, many practitioners/practices are hesitant to adopt and purchase these systems because they believe that the cost far outweighs the financial benefit. As such, the United States continues to lag behind other developed countries in the use of health IT.

Nevertheless, CMS has developed a new, 5-year demonstration project that will reward physicians/practices for high-quality care supported by the use of EHR. CMS hopes that this initiative will broaden the implementation of EHRs and health IT and transform how medicine is practiced. CMS’ final standards for E-Rx were released April 2008 and identified 6 key areas for implementation, which are scheduled to take effect in 2009.

The adoption/use of EHR faces numerous challenges from both providers and payers. As of 2007-2008, only a small percentage of physician practices (17%) have invested in EHR technology due to the costs in purchasing these systems. Despite these challenges, it is anticipated that increased support for EHR
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in the United States will result in an uptake of health IT in an effort to improve patient outcomes and efficiencies in health care delivery.

REFERENCES


