



ELECTRONIC MEDICAL RECORDS 101

A guide to Electronic Medical Records and the role of the American Recovery and Reinvestment Act in boosting their adoption.

INTRODUCTION: HELP WANTED

If you're like most physicians, you've heard and read about the potential benefits of Electronic Medical Records (EMR), but have not implemented a system of your own.

There are several reasons for the presently low EMR adoption rate. The systems typically have been costly, it takes time for physicians and their staffs to learn how to use them, and data security and access control issues related to patient privacy regulations must be addressed. And then there is the challenge of integrating EMR solutions with other existing systems.

Fortunately, help is available. The U.S. government is offering incentive payments of up to \$44,000 per physician to make the switch. The funding is part of the American Recovery and Reinvestment Act (ARRA) of 2009. And Dell is offering a complete EMR solution that allows physicians affiliated with hospitals to realize the benefits of EMR without incurring the pain and expense of going it alone.

This paper will bring you up to speed on EMR, discuss the specific funding that is available to you through ARRA, and give you an overview of the Dell Affiliate Physician EMR Solution.

GOVERNMENT'S ROLE EXPANDS

In February, U.S. President Obama signed into law the ARRA. Known as the economic stimulus plan, one section of the ARRA focuses on electronic health records.

The administration's expectations in this area are high. "Our recovery plan will invest in electronic health records and new technology that will reduce errors, bring down costs, ensure privacy, and save lives," said President Obama in a February speech to Congress after the signing.

The ARRA includes significant financial incentives for physicians to move to an EMR system. This addresses the commonly cited cost rationale for not adopting EMR. For example, a September 2008 *MIT Technology Review* blog post noted that a physician might need to spend \$40,000 to \$50,000 to buy an EMR system. (That figure includes the cost of computer and server

hardware, system software, EMR application software, etc.)

ARRA offers up to \$44,000 per physician if they are a "meaningful user of a certified EMR" by 2014 (more on what constitutes "meaningful user" and "certified" later).

The incentives are frontloaded (see table below), making it more economically beneficial for those who make the transition sooner, rather than later. Specifically, physician incentive payments vary depending upon the year of adoption. Early adopters can start receiving payments beginning in 2011, with the final year of payments being no later than 2016.

TABLE: PHYSICIAN INCENTIVES

Payment Year	Medicare Payment Incentive*	Maximum Payment
1 st Payment Year	\$18,000 if 1 st payment year is 2011 or 2012 \$15,000 if 1 st payment year is 2013 \$12,000 if 1 st first payment year is 2014	\$44,000 per physician + HPSA incentives
2 nd Payment Year	\$12,000	
3 rd Payment Year	\$8,000	
4 th Payment Year	\$4,000	
5 th Payment Year	\$2,000	
In health professional shortage areas (HPSA), incentive payments are increased by 10%		

*Medicaid payments are larger

The ARRA calls for up to five consecutive years of payments up to \$44,000 if the physician starts in 2011 or 2012; up to four consecutive years of payments up to \$39,000 if the physician starts in 2013; and up to three years of payments totaling up to \$35,000 if the start date is 2014. No payments will be made after 2016 or if the physician does not participate by 2014.



These payments represent the carrot to get physicians to adopt EMRs. In case this is not enough incentive, the ARRA also includes a stick. Physicians who have not become “meaningful users” of EMRs will not receive full Medicare payments beginning in 2015. The reduction in fees gets progressively harsher each year. Non-participants will get 99% of their fees in 2015, 98% in 2016, and 97% in 2017 and each subsequent year.

WHAT IS A “MEANINGFUL USER?”

As noted above, to receive the incentive funding from the ARRA, a physician must be “a meaningful user of a certified EMR system” by 2014. Let’s examine what that means.

To appreciate the “meaningful user” nomenclature, it helps to understand the government’s reason for funding EMR. The EMR incentives fall under the broader Health Information Technology for Economic and Clinical Health Act (HITECH) provisions of ARRA. Under HITECH, the ultimate vision is to “enable significant and measurable improvements in population health through a transformed healthcare delivery system.” The key goals are to:

- Improve quality, safety, and efficiency
- Engage patients and their families
- Improve care coordination
- Improve population and public health
- Ensure privacy and security protections.

These goals can only be realized through the effective use of information to support better decision-making. As such, HHS, through its Office of the National Coordinator for Health Information Technology (ONC), is creating guidelines as to what constitutes meaningful use. Currently, these guidelines are in the draft stage; the ONC expects the meaningful use definition and guidelines to be finalized in late 2009. (You can follow the developments [here](#).¹)

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Among the criteria under consideration for meaningful use, ONC has suggested that EMR solutions have the ability to capture data (current problems, medication, medication allergies, vital signs, lab/text results, etc.) in coded format and make use of Computerized Physician Order Entry (CPOE) for treatment of patients. Additionally, ONC has suggested that the systems

help manage populations by generating lists of patients with specific conditions.

To address the improvement of public health, another criteria in the proposed definition of meaningful use is that the physician be able to use his or her EMR solution to submit electronic data to, for example, immunization registries and public health agencies.

The ONC also sees EMR playing a role in engaging patients and their families. To accomplish this, the draft guidelines suggest a solution needs to provide patients with an electronic copy of or electronic access to clinical information including lab results, problem lists, medication lists, and allergies. And the physician will use the system to provide clinical summaries for patients for each encounter.

Naturally, noting the need for patient privacy and the protection of data, the systems must comply with Health Insurance Portability and Accountability Act (HIPAA) rules and state laws. In particular, affiliated physicians need assurance that the hospital EMR solution protects patient information when stored on the hospital systems and when it is shared. The solution must have access control and authentication systems in place to ensure only appropriate individuals see the information they are entitled to view.

These criteria all contribute to meeting the “meaningful use” requirement to get ARRA money.

WHAT DOES IT MEAN TO BE “CERTIFIED?”

Now let’s examine the “certified” part of the equation.

For a physician to qualify for funding, the EMR system used must meet criteria defined by an independent group, the Certification Commission for Health Information Technology (CCHIT).

CCHIT defines key functional elements of an EMR system for interoperability and security. The CCHIT criteria consists of a list of detailed product capabilities against which systems are evaluated. If the system includes the requisite elements, it is granted CCHIT certification. Similar to the meaningful use criteria, the definition of certified is subject to change. (You can get more information about CCHIT certification [here](#).²)

EMR BECOMES ESSENTIAL

So why the government interest in EMRs and why now?

EMRs allow the digital storage of medical histories, test results, physicians’ notes, medication records, and any other medical information traditionally recorded in paper format. EMRs also include functionality that uses digital patient information to streamline and automate time-consuming, but important administrative activities such as patient registration and scheduling and billing.

Using an EMR solution can simplify record and data retrieval so that patient history is available when and where it is needed, improve accuracy, and allow physicians to securely access the

1. <http://bit.ly/lkqD>
2. <http://www.cchit.org>



information remotely. And many healthcare experts believe EMR is a key to improving healthcare for patients.

“Electronic health records can help reduce medical errors, make healthcare more efficient, and improve the quality of medical care for all Americans,” said Health and Human Services (HHS) Secretary Kathleen Sebelius in a recent speech.

But even with these potential benefits, adoption has been slow. According to a New England Journal of Medicine survey of 2,758 doctors, released in July 2008, only 4 percent of respondents reported having a fully functional electronic records system, and 13 percent reported having a basic system.

To help accelerate adoption, Dell is partnering with hospitals so that they may in turn offer an EMR/Practice Management solution to affiliated physicians. Dell’s solution includes needs assessment, hardware, software, services, and training.

The U.S. government is offering incentive payments of up to \$44,000 per physician to switch to EMR

From the hospital’s perspective, working with Dell can offer physicians an EMR/Practice Management solution that integrates with its health information system. Depending on the extent of the integration, this might, for example, improve the accuracy of billing and allow for speedier submissions to insurers for reimbursements. Dell can also integrate the practice with the local Health Information Exchange (HIE) if one exists to support the sharing and exchange of electronic patient information and referrals between the practice, other affiliated physicians, and the hospital. If one doesn’t exist, Dell can create and manage the HIE for the hospital.

WHAT’S IN IT FOR ME?

That’s fine for the hospital, but what exactly does a solution like this do for you, the physician?

First, this approach simplifies the acquisition of an EMR solution. You do not have to buy, integrate, and manage the computer hardware, software, and various applications to have an operational EMR system.

Second, using the Dell Affiliated Physician EMR solution allows you to improve your patients’ care. In particular, you can immediately access patient records and an entire medical history at the hospital or in your office.

Depending on implementation, additional benefits are also possible. For instance, an EMR system might be integrated with or include an electronic prescribing (also known as e-prescrib-

ing) solution so that patient records include a thorough account of prescription history. Such solutions, which often are part of a Computerized Physician Order Entry (CPOE) system, can improve patient safety because prescriptions are accurately entered into a digital system that can check for possible harmful interactions. E-prescribing can also result in fewer errors, and streamlined communications with pharmacies significantly reducing callbacks. All of these characteristics contribute to a better patient experience.

Third, using the Dell Affiliated Physician EMR Solution can enhance your effectiveness as a doctor. The solution includes a practice management session and lets you easily manage your busy schedule by creating and modifying appointments with a single click. You can streamline your medical billing because the solution allows you to easily:

- Generate patient statements
- Electronically submit claims, track status, and confirm eligibility
- Electronically receive and post payments.

DON’T GO IT ALONE

For most physicians, EMR holds the promise to improve the way they run their practices, allowing more efficient use of time and faster access to patient information. ARRA incentive money eliminates (or reduces) the cost objection of moving to EMR solutions.

However, the technical challenges required to create a “meaningful use and certified” system on one’s own are daunting.

That’s where Dell can play a key role in your success. Dell brings the expertise and resources to implement a comprehensive EMR solution for affiliated physicians. Dell’s award-winning service experts consult closely with interested practices, combining the knowledge and best practices gained by hundreds of successful implementations with Dell’s complete portfolio of hardware, software, and services.

The Dell Affiliated Physician EMR Solution is hosted either at the hospital a physician is involved with or a service provider selected by the hospital. Because it is a hosted solution, physicians have little to maintain, update, and manage with its infrastructure. When physicians have their software systems tied directly to that of the affiliated hospital, all data transfers are handled by a secure HIE system that is managed. No more paper-and-envelope referrals and lab test results; all practice and patient information can be stored securely and is easily shared among all the affiliated practices.

Physicians who use the Dell Affiliated Physician EMR Solution can leverage the electronic medical records and practice management tools to improve their operations, but the HIE aspect of the solution also can help maintain and grow a practice through efficient sharing of data among relevant stakeholders. For ex-



EMR GLOSSARY

ARRA: American Recovery and Reinvestment Act of 2009

CCHIT: Certification Commission for Health Information Technology (certified systems)

CPOE: Computerized Physician Order Entry

EMR: Electronic Medical Records

HIE: Health Information Exchange

HHS: Health and Human Services

HPSA: Health Professional Shortage Areas

ONC: Office of the National Coordinator for Health Information Technology

ample, referrals today tend to happen via a cumbersome system of manila folders and Fed-Ex envelopes. Conversely, the HIE provides the infrastructure for secure sharing of information, and the EMR automates the process of generating and receiving referrals. This can greatly reduce the time and effort required to pull together relevant information that must be shared between physicians who work together. Basically, a barrier is removed enabling physicians to initiate and accept referrals essentially using a few mouse clicks, thus potentially giving a physician the capability to be involved in more referrals in a given time period.

Hospitals can offer the Dell Affiliated Physician EMR Solution free to affiliated doctors, or arrange subscription fees and even lease rates for hardware. Dell facilitates both types of deployment.

Additionally, Dell offers a customized Web page that enables physicians to research and select EMR offerings that will work seamlessly with those of the hospital.

Dell's purchase and leasing options include finance plans that minimize the out-of-pocket expenses for physician practices early on, phasing in more payments as ARRA reimbursement funds are received. This helps ensure positive cash flow and speed the ROI of the solution, and it also enables practices to stay on the leading edge of technology, with lease programs that refresh hardware and software every three years.

Dell brings the expertise and resources to implement a comprehensive EMR solution for affiliated physicians

When the hospital and doctors have chosen a package, Dell experts conduct comprehensive training, both for the hardware and software components of the solution. Dell also offers first-line helpdesk support for its EMR customers.

By taking advantage of a Dell Affiliated Physician EMR Solution, physicians are assured that their EMR efforts work flawlessly with hospital systems, protect patient privacy, and meet the requirements for ARRA funding. ●

To learn more about the Dell Affiliated Physician EMR Solution, visit www.dell.com/EMR.