

# Patient Engagement: Achieving Meaningful Use

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To encourage the broader use of electronic health records (EHRs) by physicians, the federal government has created a multi-year program to provide incentive bonuses of up to \$64,750 to physicians who can demonstrate that they make “meaningful use” of a certified EHR.<sup>1</sup> Through this effort, scheduled to begin in 2011, the government hopes to speed adoption of the technology.

Included in the 2009 American Recovery and Reinvestment Act (ARRA), the Health Information Technology for Economic and Clinical Health (HITECH) Act created and funded the incentive program. The government established goals that go well beyond installing EHRs in the offices of physicians and other eligible professionals. While the incentive program sets several objectives — including improved sharing of clinical information among physicians, hospitals, pharmacies, labs and elsewhere in the healthcare system — it’s clear that a chief aim is to nudge physicians into sharing medical information with their patients in new and more compelling ways. Indeed, one of the program’s central outcome priorities is “using certified EHR technology to ... engage patients and families in their care.”<sup>2</sup> “The following care goal for meaningful use addresses this priority,” espouses the government, to “...provide patients and families with timely access to data, knowledge, and tools to make informed decisions and to manage their health.”<sup>3</sup>

In its July 2010 release of the Final Rule detailing the program’s first set of meaningful use requirements, the Centers for Medicare and Medicaid Services (CMS) echoed that goal by explaining, “We believe that meaningful use should be patient-centered so we focus on getting the most value to the patient.”<sup>4</sup>

To that end, four of the 25 criteria outlined for the initial stage of the program focus on patient engagement (See *Exhibit One: Reference Points*). Two are among the 15 core requirements that all participants must meet; two are contained in a menu of 10 additional requirements, from which physicians must select five. They are:

*(Core) Provide clinical summaries for patients for each office visit.*

*(Core) Provide patients with an electronic copy of their health information, upon request.*

*(Menu) Send reminders to patients, in the manner requested by patients, for preventive and/or follow-up care.*

*(Menu) Provide patients with timely electronic access to their health information.*

This white paper focuses on these four patient engagement objectives — and how physicians can adapt to using an EHR to help inform and engage patients.

## Exhibit One: Reference Points

Medicare and Medicaid Programs; Electronic Health Record Incentive Program; Final Rule. 42 CFR Parts 412, 413, 422 et al.

- 1 **Criteria:** Provide clinical summaries for patients for each office visit. Pages 44358-44359
- 2 **Criteria:** Provide patients with an electronic copy of their health information, upon request. Pages 44353 to 44355
- 3 **Criteria:** Send reminders to patients, in the manner requested by patients, for preventive and/or follow-up care. Pages 44348-44349
- 4 **Criteria:** Provide patients with timely electronic access to their health information. Pages 44356-44358  
Source: <http://edocket.access.gpo.gov/2010/pdf/2010-17207.pdf>. Accessed October 18, 2010

## Background: The EHR Incentive Program

The EHR incentives consist of payments made annually through Medicare or Medicaid to physicians and other eligible healthcare professionals who can demonstrate meaningful use of a certified EHR (See Exhibit Two: *What's a Certified System?*) according to objectives set by CMS. Those qualifying can earn up to \$44,000 in Medicare incentives or \$64,750 through Medicaid. The program is voluntary, but eligible individuals and entities that fail to complete it — by not meeting the requirements or choosing not to participate — will face penalties in Medicare reimbursement commencing in 2015.

In its Final Rule, CMS provides specifics about the goals and objectives of the program's first two years (2011 and 2012), which the agency calls **Stage One**. It will be followed by additional objectives that EHR users must achieve in subsequent stages of meaningful use. CMS will release further rules to more fully define its **Stage Two** and **Stage Three** objectives.

### For Stage One, CMS requires EHR users to:

- Electronically capture health information in a coded format;
- Use that information to track key clinical conditions and communicate that information for care coordination purposes;
- Implement clinical decision-support tools to facilitate disease and medication management; and
- Report clinical quality measures and public health information.

The requirement to meet all 15 “core criteria” (See *Exhibit Three: Meaningful Use: Core Criteria*) and five self-selected “menu criteria” (chosen from a menu of 10 additional criteria) (See *Exhibit Four: Meaningful Use: Menu Criteria*) does not permit much flexibility. You either meet the criteria or you don't. Failing to meet any of the 20 criteria you report in the program's first year means you'll earn no bonus for that year. CMS also gives states the opportunity to transfer up to four objectives from the menu to the core set of objectives for participants in the Medicaid incentive programs.

However, CMS allows for narrow exemptions to 13 of the 25 criteria in the two sets. For example, a participating physician who does not prescribe any medications would not have to meet electronic prescribing objectives.

## Exhibit Two: What's a Certified System?

To qualify as a certified EHR, the system must support the performance of each of the meaningful-use criteria set forth by CMS and it must enable a participating professional to report each of those objectives. The HITECH Act empowers the Office of the National Coordinator for Health Information Technology (ONC) to certify EHRs — complete systems and EHR modules — as qualified. ONC has created a comprehensive list of systems that have been tested and certified under its temporary certification program.

This list is continually updated, and can be viewed online at: <http://onc-chpl.force.com/ehrcert>

## Exhibit Three: Meaningful Use: Core Criteria

1	Use computerized physician order entry (CPOE)
2	Implement drug-drug and drug-allergy interaction checks
3	Generate and transmit permissible prescriptions electronically
4	Record demographics
5	Maintain an up-to-date problem list of current and active diagnoses
6	Maintain active medication list
7	Maintain active allergy list
8	Record and chart changes in vital signs
9	Record smoking status for patients 13 years old and older
10	Implement one clinical decision-support rule
11	Report ambulatory clinical-quality measures
12	Provide patients with an electronic copy of their health information, upon request
13	Provide clinical summaries for patients for each office visit
14	Ensure the capability to exchange key clinical information
15	Protect electronic health information

For these criteria, eligible professionals will be required to report the numerator — for example, how many patients were provided with an electronic copy of their health information — and the denominator — how many patients made the request and, if applicable, the basis for exclusion. The exclusions take effect when “no patients or no or insufficient number of actions ... would allow calculation of the meaningful use measure.”<sup>5</sup>

The program begins January 1, 2011. This gives physicians and EHR vendors little time to fully assess how they must adapt to the recently defined details of the incentive program. Fortunately, the first payment year — 2011 or 2012 — requires only 90 consecutive days of “meaningful use” for those seeking the Medicare incentives; for professionals participating in the Medicaid program, only proof of adopting, implementing or upgrading to a certified EHR system is necessary.

## Meaningful Use and Patient Engagement

On the basis of the expected benefits for patients, the federal government’s drive to establish a standard for meaningful use of EHRs has won the endorsement of key physician leaders. For example, Paul Tang, MD, the chair of the ONC’s meaningful use workgroup and vice president and chief medical information officer with the Palo Alto Medical Foundation notes, “There is a clear value in direct input from patients and families ... one of my favorite components of meaningful use is helping patients get access to their own data.”<sup>6</sup> The country’s National Coordinator for Health Information Technology, David Blumenthal, MD, concurs: “Reliable access to complete personal health information is the foundation of safe and effective care.”<sup>7</sup>

The pursuit of meaningful use requires medical practices to carefully consider their strategy for patient communication and access to information. While each HITECH Act criterion in the core and menu sets has unique characteristics, four (two core and two menu criteria) require patient communication and access to information at what will be a new level of transparency for practices.

## Exhibit Four: Meaningful Use — Menu Criteria

- 1 Perform drug-formulary checks

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- 2 Incorporate clinical lab test results as structured data

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- 3 Generate lists of patients by specific conditions

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- 4 Send reminders to patients in the format they prefer for preventive and/or follow-up care

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- 5 Provide patients with timely electronic access to their health information

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- 6 Use certified EHR technology to identify patient-specific education resources

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- 7 Perform medication reconciliation

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- 8 Summarize the care record for each transition of care/referrals

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- 9 Ensure the capability to submit electronic data to immunization registries/systems\*

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- 10 Ensure the capability to provide electronic syndromic-surveillance data to public health agencies\*

\* Participating professionals must choose either of these two public health initiatives as one of the five required menu-based criteria.



## I. Clinical (After-Visit) Summary

A key step in successful patient engagement is educating the patient. Providing written clinical summaries for patients for each office visit is one of the 15 core requirements for meaningful use of an EHR. Research suggests that immediately after a visit, patients forget somewhere between 40 and 80 percent of the medical information they receive. Of the information remembered, nearly half of it is remembered incorrectly.<sup>8</sup> The after-visit summary can help patients recall pertinent medical information. Research also shows that oral information combined with written information has greater impact on patient knowledge than oral information alone.<sup>9</sup>

This core criterion calls for providing clinical summaries for patients for each office visit. The Final Rule also requires EHR users to capture and calculate the following data:

**Measure:** *Clinical summaries provided to patients for more than 50 percent of all office visits within three business days.*

**Denominator:** *Number of unique patients seen by the eligible professional for an office visit during the EHR reporting period.*

**Numerator:** *Number of patients in the denominator who receive a clinical summary of their visit within three business days.*

**Successful Results:** *The numerator must be 50 percent or more of the denominator.*

**Exclusion:** *Any eligible professional who has no office visits during the EHR reporting period.*

CMS specifies that an office visit is any patient encounter involving concurrent care, transfer of care or consulting, as well as any prolonged physician service without direct (face-to-face) patient contact. Regardless of the nature of the encounter, the clinical summary must provide a patient with relevant and actionable information and instructions (See *Exhibit Five: Elements of Clinical Summary*).

The EHR incentive program gives physicians several options for delivering clinical summaries. They can make an entry in the patient's electronic personal health record (PHR) or to the practice's online patient portal, or deliver the information via secure e-mail. Alternately, they can provide patients with a CD, USB thumb drive or a printed copy. Paper copies may be used and, in fact, this may be the primary means of delivery for some practices. If a physician chooses an electronic form of delivering clinical summaries, the information needs to be printed only for patients who request a hard copy.

The rule makes clear that the patient cannot be charged for the copy of the information and must receive it within three business days — defined as Monday through Friday, excluding holidays. Mailed summaries can be posted on the final day of the three-day period.

If the visit can be documented in final form, and a printer is available in the exam room, a physician can hand the summary to the patient and review it with them. The summary also could be presented to patients as they check out of the practice.

When practices do not have the means to produce summaries immediately, they must establish a way to communicate with patients after they leave the office. The government allows the summaries to be mailed, but some physicians may rightly worry about security, not to mention the unreliability and cost — always rising — of postal delivery.

Medical practices might consider mailing patients a CD or USB thumb drive with the summary, but again, this approach consumes staff time in transferring the data and preparing and posting the media, in addition to postage.

Asking patients to return to the office to pick up the summary poses significant logistical challenges and a substantially increased workload for front office staff. It also inconveniences patients. Many will not return, thus negating the potential upside of making an after-visit summary available at all. CMS does not disallow e-mailing or faxing medical information, but either method raises substantial security concerns, as well as the fact that e-mail addresses and fax numbers must be collected, stored and kept current. A practice faces considerable staff time in simply managing hundreds, if not thousands, of e-mail addresses and faxes.

An online patient portal offers an ideal method of delivering private medical information to patients. Portals are secure routes for patients to obtain personal information directly through the practice or via data routed to a PHR. A portal allows a practice to automatically notify

patients when their summaries are available (within three days to meet this criterion). Importantly, a portal provides a record of the date and time the summary is available to the patient. The portal also assists with the other objectives described in this white paper.

## II. Access to Medical Records

With the introduction of the EHR incentive program, the government requires that participating professionals release medical records electronically. In describing the details of this criterion in the Final Rule, CMS states that “providing patients with an electronic copy of their health information demonstrates one of the many benefits health information technology can provide.”<sup>10</sup>

Historically, physicians have shared medical records in paper form with patients, accomplished through a release of records at the patient’s request. Frequently, portions of the handwritten — and then photocopied — paper record are indiscernible, if not illegible. The structure of the record and the location of the information vary by practice, and even by physician, making it difficult to digest. Significant time and cost go into preparing a copy for the patient, who may wait weeks for the request to be processed and end up with a substantial bill.<sup>11</sup>

EHRs reduce many of the practical barriers to releasing medical records to patients, particularly if those records can be released systematically. This approach replaces the current process of giving patients a request form, having them sign and submit it, and then pulling and copying the records. Electronic records are not only structured and legible, but swiftly accessible. Technology helps make medical processes transparent to the patient: He or she visits the physician, receives care and then, if the patient desires, receives a legible written record of the event via electronic means.

Studies of what happens when medical records are accessible to patients suggest that physician-patient communication could be improved. Patients who have their medical information may comply better with treatment and feel empowered with the knowledge of their medical care. Patients who have access to their health information electronically report that they know more about their health, ask more

questions and take better care of themselves than when their health information was less accessible to them in paper medical records, according to a recent study by the California HealthCare Foundation.<sup>12</sup>

To meet this core requirement, eligible professionals must provide patients with an electronic copy of their health information upon request. CMS outlines the following standards to prove meaningful use:

**Measure:** *More than 50 percent of all patients of the eligible professional who request an electronic copy of their health information receive it within three business days.*

**Denominator:** *The number of patients of the eligible professional who request an electronic copy of their electronic health information four business days before the end of the EHR reporting period.*

**Numerator:** *The number of patients in the denominator who receive an electronic copy of their electronic health information within three business days.*

**Successful Results:** *The numerator must be more than 50 percent of the denominator.*

**Exclusion:** *No patients (or their agents) request an electronic copy of patient health information during the EHR reporting period.*

### Exhibit Five: Elements of Clinical Summary

- Patient name
- Provider’s office contact information
- Date and location of visit
- Updated medication list and summary of current medications
- Updated vital signs
- Reason(s) for visit, procedures and other instructions based on clinical discussions that took place during the office visit
- Updates to a problem list
- Immunizations or medications administered during visit
- Summary of topics covered/ considered during visit
- Time and location of next appointment/testing if scheduled, or a recommended appointment time if not scheduled
- List of other appointments and testing that patient needs to schedule, with contact information
- Recommended patient decision aids
- Laboratory and other diagnostic test orders
- Test/laboratory results (if received within 24 hours of visit)
- Symptoms

While many physicians are rightly concerned about whether they can fulfill these requests, consider first what CMS means by “electronic copy of their health information.” The agency defines health information as all of the health information the physician has electronically, including “diagnostic test results, problem list, medication lists and allergies”.<sup>13</sup>

CMS calls for eligible professionals to defer to federal and state laws regarding disclosure. For example, physicians may withhold certain information in accordance with the Privacy Rule of the Health Insurance Portability and Accountability Act (HIPAA). This may include information that the physician believes may cause harm to the patient.

Importantly, the incentive program rules require disclosure only of information existing electronically in the EHR or accessible from the EHR. Therefore, there is no requirement to track every single scrap of paper that might not have been scanned into the record, such as the duplicate copy of a telephone message stuck in the patient’s record from a conversation with a patient held five years before the EHR implementation.

The Final Rule calls for the form and format of the record to be “human readable,” meaning the physician must supply patients with records in a format that they can read. It cannot appear as a jumble of binary code or computer programming symbols.

Physicians must make an effort for records to be easily understandable to the patient, but this does not mean rewriting the medical record. According to CMS, there should be “reasonable accommodations for patient preference,” but the rule does not clearly define these accommodations except to specify that the records can be delivered in any electronic form: via a patient portal, a PHR, a CD or a USB thumb drive. Each of these delivery forms has its own requirements, inconveniences and, in some cases, security risks from loss or unauthorized access.

While state laws provide ample instruction for how and what physicians may charge for paper records on request, the legislation says much less about handling a copy of an electronic record. Unless a medical practice has set up its medical records for access by patient self-service, such as a patient portal, these requests may require staff to locate, validate, download and distribute the information. CMS confirms that it does not have the authority to regulate fees, and instead defers to the HIPAA Privacy Rule, which says that a “reason-

able, cost-based fee” may be charged but that costs should be “minimal.”<sup>14</sup> The agency promises to address the pricing issue in future rulemaking.

In accordance with the other objectives, the Final Rule specifies that three days means anytime Monday through Friday, excluding holidays. If an eligible professional chooses to mail the record on a CD or flash drive or other physical electronic media, the practice can mail it on the third business day after the request is received.

As with all of the meaningful use criteria, it is important to understand how CMS defines the denominator —

the number of patient requests for their records. For the purposes of this criterion, the requests that will be

counted include only patients and their agents, such as a legal guardian or a parent of a child. It does not include third-party requests.

Any EHR deemed certified by the ONC will be able to count requests for copies.

There will be no need for additional record keeping of these requests outside of the EHR. All the same, it is important to understand

how the information is to

be entered into the EHR, to train staff to enter medical record requests and to require

same-day entry of those requests. Practices that provide a patient portal that accepts medical record requests or interfaces with patients’ PHRs should be assured that their EHR will track and record these requests automatically.

However, it will be necessary to monitor errors, such as patients being unable to download requested information. CMS does not specify the impact such problems would have on the computation of the data required by this criterion, but it is notable that the measure mandates a 50 percent success rate.

Given this framework, participating professionals must establish a process to ensure that patients have prompt and secure access to their medical records. They must also establish a reasonable delivery and approval process that does not consume staff or physician time.



### III. Patient Reminders

The Final Rule offers an objective, from the set of 10 menu-based criteria, for eligible professionals to send patient reminders. The criterion calls for sending reminders for preventive and/or follow-up care according to patient preferences. The Final Rule lists the following requirements for this criterion:

**Measure:** *More than 20 percent of all unique patients 65 years old or older or five years old or younger were sent an appropriate reminder during the EHR reporting period.*

**Denominator:** *Number of unique patients 65 years old or older or five years old or younger.*

**Numerator:** *The number of patients in the denominator who were sent the appropriate reminder.*

**Successful Result:** *The numerator must be more than 20 percent of the denominator.*

**Exclusion:** *Any eligible professional who has no patients 65 years old or older or five years old or younger with records maintained using certified EHR technology.*

This criterion is narrowly focused on specific age groups. It calls for physicians to improve their performance in making appointment recalls, which requires a method to track the next recommended visit(s). Although practices can keep appointment recall systems on paper, CMS envisions streamlining the process via automation, such as that available in any of the ONC-certified systems.

Appointment recalls differ from appointment confirmations. A recall alerts physicians, staff and/or patients about recommended tests, preventive services or other care, as compared with confirming a scheduled appointment, often just a day or two in advance. The alert is based on the patient's medical condition, age, gender and other factors related to clinical guidelines. Once the recall is communicated, practice staff can schedule the patient for an appointment.

This criterion is based on patient preference, although all communication must be confidential. Choosing a single route of communication, such as that available through a patient portal, is ideal, although CMS instructs participating professionals to honor the wishes of patients who want to receive reminders by other means. The physician has discretion to determine how often reminders should be sent. The normal limits imposed by HIPAA and pertinent federal, state or local regulations still apply.

An effective recall system is more than a means to meet an objective and earn a government incentive. It is a key function of an EHR: a means to communicate recommendations to patients about medical care the physician recommends they receive in a timely and systematic manner.

Recalls improve clinical quality and may also serve as effective tools to drive a busy, productive practice. Recalling patients for follow-up care to a practice means getting their business. Communicating with patients about necessary preventive care — even the need to obtain other services from other physicians, such as eye exams for diabetic patients — builds loyalty to the practice because patients know that their physician is looking out for them.

### IV. Access to Health Information

This menu-based criterion calls for eligible professionals to provide patients with timely electronic access to their health information (including lab results, problem lists, medication lists, medication allergies) within four business days of the information being available. Differing from the criteria for the after-visit summary and medical records access, its purpose is to ensure that patients can obtain their health information when they want to. CMS outlines the following requirements for this criterion:

**Measure:** *More than 10 percent of all unique patients seen by the eligible professional are provided electronic access to their health information in timely manner (available to the patient within four business days of being updated in the certified EHR).*

**Denominator:** *Number of unique patients seen by the eligible professional during the EHR reporting period.*

**Numerator:** *The number of patients in the denominator who have timely (available to the patient within four business days of being updated in the certified EHR) online access to their health information.*

**Successful Results:** *The numerator must be at least 10 percent of the denominator.*

**Exclusion:** *Any eligible professional who neither orders nor creates any of the information listed in Exhibit Five.*

CMS intends this information to be available to the patient on demand, but notes that access is subject to the physician's discretion to withhold certain information from the patient. A medical practice could allow access via a patient portal or a PHR. Distinguishing this objective from access to an electronic copy of medical records, CMS notes that "a patient with electronic access can access the information on demand at anytime while a patient must affirmatively request an electronic copy from the eligible professional at a specific time and the information in the copy is current only as of the time that the copy is transferred from the provider to the patient."<sup>15</sup> Access to information can help patients feel more prepared for office visits and provide more accurate information to providers.<sup>16</sup>

The objective allows eligible professionals to withhold information in anticipation of a face-to-face encounter with the patient. As noted previously, the eligible professional may also withhold information based on his or her clinical judgment.

This criterion differs from the ones for providing access to medical records on request and providing an after-visit summary. They focus on the availability of access to the record and on the timeliness of the data contained in the record. The eligible professional can meet the measure by demonstrating that more than 10 percent of unique patients seen during the EHR reporting period can obtain lab test results, problem lists, medication lists, medication allergy lists and the information in their records in a timely fashion. CMS does not require the eligible professional to monitor whether 10 percent of all patients access their information, but rather that it is made available.

## Conclusion

To successfully participate in the government's EHR incentive payment program, it's not sufficient to simply purchase a system and start using it. CMS regards patient engagement as a key component of meaningful use.

Expect the government to stiffen the criteria to prove meaningful use in Stages Two and Three of the EHR incentive program. Among the proposed patient-engagement criteria for 2013 (Stage Two) are for EHRs to:

- Allow all patients access to their medical information, populated in real time with health data;
- Offer secure patient-provider messaging capability;
- Provide access to patient-specific educational resources in common primary languages;
- Record patient preferences (e.g., preferred communication media, health care proxies, treatment options); and
- Incorporate data from home monitoring devices.<sup>17</sup>

For additional perspective on the current and future direction of patient engagement in health care and the use of EHRs and other pertinent technology, consider the close alignment of the HITECH Act's goals with the Six Aims for Improvement (safety, timeliness, effectiveness, efficiency, equity and patient-centeredness) outlined in the landmark Institute of Medicine (IOM) report calling for a redesign of the American health care system.<sup>18</sup> The IOM describes patient-centered care as "care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions."<sup>19</sup> Joshua Seidman, PhD, writing in a Department of Health and Human Services blog shortly after the release of Final Rule for Stage One, said meaningful use was shaped by the focus on patient-centeredness:

*"We always evaluated the three principles — flexibility, simplicity, consistency — with an eye toward the fundamentals of meaningful use: making care delivery more patient-centered and improving the quality, safety and efficiency of health care. We never lost sight of the laser focus that the meaningful use principle provided: It's not about the technology; it's about transforming health care delivery for the benefit of patients and everybody else involved in their care."<sup>20</sup>*

Under the government's new EHR incentive program, eligible professionals will be paid for demonstrating use of a certified EHR in a meaningful manner. The concept of meaningful use is central to the government's program, as is the inclusion of the patient as an informed participant in his or her health care.

<http://www.cms.gov/EHRIncentivePrograms/>



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