

# **MEANINGFUL USE** FOR ELIGIBLE PROFESSIONALS: THE TOP TEN CHALLENGES

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## Meaningful Use Addresses Five National Health Policy Priorities:

- Improve quality, safety and efficiency, and reduce health disparities
- Engage patients and families
- Improve care coordination
- Improve population and public health

Ensure adequate privacy and security protections for personal health information

"Less than six percent of practices can meet meaningful use today."<sup>2</sup>

Joseph Goedert, Health Data Management

## What Is "Meaningful Use"?

*EHR Meaningful Use* was coined by framers of the American Recovery and Reinvestment Act of 2009 (ARRA) to describe criteria health care providers must satisfy to qualify for electronic health record (EHR) incentives sponsored by the bill. Incentives initially will be Medicare and Medicaid claims payment bonuses to eligible professionals and hospitals that qualify, followed by subsequent Medicare claims payment penalties to those that do not. Framers further specified that meaningful use criteria would be developed by the Office of the National Coordinator of Health Information Technology (ONC) and administered by the Centers for Medicare and Medicaid Services (CMS).

ONC released an initial (Stage 1) set of meaningful use criteria on December 30, 2009, and CMS published it as a notice of proposed rulemaking (NPRM) on January 13, 2010. The criteria will be released and adopted in three incremental stages (Stage 1, Stage 2 and Stage 3), that will become effective in 2011, 2013 and 2015 respectively. Stage 2 and Stage 3 criteria will be released on later dates. This paper focuses on challenges associated with meeting Stage 1 eligible professional criteria.

## What Is an Eligible Professional?

An "eligible professional" (EP) is a health care provider that meets two criteria:

- The first is that she or he must be legally licensed to practice as:
  - For Medicare incentives: a physician, specifically a doctor of medicine, a doctor of dental surgery or dental medicine, a doctor of podiatric medicine, a doctor of optometry, or a chiropractor.
  - For Medicaid incentives: a physician, a certified nurse midwife, a nurse practitioner, or a physician assistant practicing in a federally qualified health center (FQHC) or rural health clinic (RHC) led by a physician assistant.
- The second is that she or he may not be "hospital-based," that is, may not be a provider who, "furnishes substantially all of his or her Medicare-covered [and Medicaid-covered] professional services during the relevant EHR reporting period in a hospital setting (whether inpatient or outpatient) through the use of the facilities and equipment of the hospital, including the hospital's qualified EHRs."<sup>1</sup> The current proposed cutoff to define "hospitalbased" is 90 percent or more claims per year with Place of Service code 21, 22, or 23. Medicaid-eligible professionals practicing predominantly (50 percent or more) in an FQHC or RHC do not lose their eligible professional designation if they are hospital-based. (Note: "hospital-based" ineligibility is widely criticized and may be eliminated before the criteria become effective.)

## What Does Meaningful Use Mean to Eligible Professionals?

Eligible professionals have a lot at stake from meeting and not meeting meaningful use criteria. One is dollars — bonuses for meeting criteria — of up to \$44,000 (Medicare) or \$63,750 (Medicaid) per eligible professional, as well as subsequent

"Therefore, we believe in order to meet this objective it is not sufficient to demonstrate this capability once, but rather to comply with the objective, an EP must utilize this capability as part of the daily work process."<sup>4</sup>

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Medicare payment penalties for not meeting them. The criteria are also almost certain to become default industry standards for using EHRs well into the future.

The immediate impact of meaningful use criteria on eligible professional practices without an EHR (the majority) is that they have to acquire or gain access to an ambulatory EHR system. Those already using an EHR need to ensure that it is up-to-date (has been upgraded with the vendor's or other supplier's latest release). Most importantly, the systems must be certified to ONC standards (see "<u>Update on Certification</u>,"<sup>3</sup> for information on standards and certifying organizations). However, logistics such as the following are also important for success, and should not be overlooked:

- The product is fully deployed and used by all providers in the practice,
- It is installed and configured to support practice needs, and
- A qualified staff or service is available to operate, maintain and manage the system. Management includes as-needed training, upgrades and modifications, and guidance/advice on how to satisfy meaningful use criteria.

In addition to a certified EHR system, what will distinguish eligible professionals that satisfy Stage 1 criteria and qualify for incentives will be incorporating EHR features and functions into everyday care delivery. Stage 1 objectives, as well as the measures for demonstrating that they are met, are listed in Table 1. The overall challenge is that acquiring an EHR and meeting the criteria require work, expense and risk-taking. Risks include failing to qualify for bonuses (and therefore not covering or partially covering up-front system costs as well as not meeting cash flow projections), plus process and workflow upheaval that is inevitable during EHR implementation.

The good news is that although implementing an ambulatory EHR is a major undertaking, numerous options are available to most practices, and even practices that have not started can complete an accelerated acquisition in time to realize payment incentives if they get started right away. Eligible professional practices also have places to go for help, including hospitals, consultants, ARRA-funded regional extension centers and EHR vendors. (For more information about assistance from hospitals and other sources see "Integrating EHRs: Hospital Trends and Strategies for Integrating EHRs Within Their Communities."<sup>5</sup>) Finally, qualifying for Medicare and Medicaid claims payment bonuses is a convenient way for eligible professional practices planning to acquire an EHR system to cover some or all purchase and implementation costs.

Table 1. Summary of Stage 1 Meaningful Use Objectives and Measures forEligible Professionals (December 30, 2009)

Functional Requirements		
Computerized Physician Order Entry	<ul> <li>≥80 percent of all orders (all types) directly entered by authorizing provider</li> <li>≥75 percent of all permissible medication orders are electronically prescribed</li> </ul>	
Medication Reconciliation	<ul> <li>Performed at ≥80 percent of relevant encounters and transitions of care</li> </ul>	
Physician Documentation	<ul> <li>For ≥80 percent of unique patients seen:</li> <li>Maintain an up-to-date problem list of current and active diagnoses (ICD-9-CM or SNOMED CT)</li> <li>Maintain active medication list</li> <li>Maintain active medication allergy list</li> <li>Record all these entries as structured data (at least one structured entry or "none")</li> </ul>	

Table continues next page

Table 1 continued. Summary of Stage 1 Meaningful Use Objectives andMeasures for Eligible Professionals (December 30, 2009)

Functional Requirements — continued		
Other Documentation	<ul> <li>For ≥80 percent of patients seen, record demographics (as structured data) <ul> <li>Gender, insurance type</li> <li>Ethnicity, race (federal guidelines), preferred language</li> <li>Date of birth</li> </ul> </li> <li>For ≥80 percent of patients ≥2 years old seen, record and chart changes in vital signs (as structured data) <ul> <li>Height, weight, blood pressure</li> <li>Calculate and display BMI</li> <li>Plot and display growth chart (patients 2-20 years old)</li> </ul> </li> <li>For ≥ 80 percent of patients ≥ 13 years old seen, record smoking status</li> <li>Incorporate clinical laboratory test results into EHR as structured data for ≥50 percent of all clinical lab tests ordered with positive/negative or numeric results</li> </ul>	
Performance Improvement	<ul> <li>Drug-drug, drug-allergy and drug-formulary check functionality is enabled</li> <li>Implement five clinical decision support rules relevant to specialty or high clinical priority (including diagnostic test ordering and the ability to track compliance)</li> <li>Generate at least one list of the EP's patients with a specific condition to use for quality improvement, reduction of disparities, and outreach</li> </ul>	
Performance Measurement/ Reporting	<ul> <li>Report ambulatory quality measures – per data captured and calculated by the EHR – to CMS or the states for specified core and specialty measures*</li> <li>For 2011: attest to accuracy and completeness of aggregate numerator and denominator</li> <li>For 2012: submit (at least one measure) electronically</li> </ul>	
Health Information Exchange (HIE) Requirements		
Health Information Exchange: Patients	<ul> <li>Provide ≥80 percent of patients who request it with an electronic copy (secure personal health record [PHR], portal, CD, USB drive) of their health information (diagnostic test results, problem list, medication and allergy lists) within 48 hours</li> <li>Provide patients with a clinical summary (via PHR, other electronic media or printed output) of encounter for ≥80 percent of office visits</li> <li>Provide ≥10 percent of patients seen with electronic access (via secure PHR, portal, CD or USB drive) to their health information (lab test results, problem, medication, allergy lists) within 96 hours of the information's availability to the EP</li> <li>Send reminders for preventive/follow-up care (per patient preference: Internet or non-Internet) to ≥50 percent of patients seen</li> </ul>	
Health Information Exchange: External Providers	<ul> <li>Perform at least one test of the capability to electronically exchange key clinical information (for example, problem list, med list, allergies, test results) among providers using different EHR systems</li> <li>Provide summary care record (via electronic exchange, secure portal, secure e-mail, CD, USB drive or printed copy) for ≥80 percent of patient transitions of care and referrals</li> </ul>	

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Table 1 continued. Summary of Stage 1 Meaningful Use Objectives andMeasures for Eligible Professionals (December 30, 2009)

Health Information Exchange (HIE) Requirements — continued		
Health Information Exchange: Pharmacies	<ul> <li>≥75 percent of all permissible (other than controlled substance) medication orders are transmitted electronically</li> </ul>	
Health Information Exchange: Public and Private Payers	<ul> <li>Check insurance eligibility for at least 80 percent of patients seen</li> <li>Submit ≥80 percent of claims electronically</li> <li>Health Information Exchange: Public Health Authorities <ul> <li>Perform at least one test of the capability to submit electronic data to immunization registries</li> <li>Actual submission where required and accepted</li> <li>Performed at least one test of the capability to provide electronic surveillance data to public health agencies</li> <li>Actual transmission according to applicable law and practice</li> </ul> </li> </ul>	
HITECH Privacy and Security		
	<ul> <li>Full compliance with HIPAA Security and Privacy rule</li> <li>Conduct or update a security risk assessment per 45 CFR 164.308 (a)(1) and implement security updates as necessary</li> </ul>	

\*Lists of common and specialty-specific measures included in the NPRM for meaningful use released on December 30, 2009 are expected to be significantly reduced. For example, one passage in the proposed rule says, "We expect to narrow down each proposed set to a required subset of 3 to 5 measures based on the availability of electronic measure specifications and comments received;"<sup>6</sup> and a February 17, 2010 <u>letter</u><sup>7</sup> from the HIT Policy Committee (the ONC workgroup which drafted the criteria) to the National Coordinator of Health Information Technology suggests removing core measure reporting from Stage 1.

#### Meeting Meaningful Use Criteria: What Are the Top Ten Challenges?

Installing and implementing EHR systems has never been easy, and meeting meaningful use criteria ups the ante. The following are what CSC considers the top ten challenges that eligible professional practices must address to meet Stage 1 meaningful use criteria. Some involve meeting specifically challenging criteria (such as CPOE), but others cover underlying frameworks (such as data capture) critical to satisfying numerous if not all measures.

#### 1. Capture the Data

The most critical underlying frameworks for enabling satisfaction of meaningful use criteria are the EHR system data entry and download operations used to capture and store patient data. They are needed to both directly satisfy criteria such as allergy and problem list maintenance, and to ensure that the right source data is available for required features such as growth and development (G&D) flowcharts and clinical decision support (CDS). Almost all data needed for Stage 1 has to be entered as structured data elements (e.g., not buried in progress or other free text notes), so it can be sorted and selected for reporting and other features, and in the cases of many data elements, entered using specific coding systems or vocabularies such as ICD, SNOMED, RxForm and LOINC.

This entails efforts at numerous levels, starting with ensuring the EHR system has structured fields needed for each criteria, acquiring and loading content databases, configuring data-entry templates that assist and remind users to enter the correct data, and designing/developing methods to download eligibility, test results and other data from other systems. Details can become very important. For example, diabetes and other quality measures often not only require appropriate diagnosis and/or other code entries, but to satisfy particular measures need to be one of a specific subset of codes. In addition, physicians Be very aware of the workflow changes coming, Mytych warns, "We're asking them to add things to their daily life that don't exist today."<sup>8</sup>

*Michael Mytych, Health Information Consulting*  and other users need to be trained to accurately and comprehensively enter patient data. Data capture is a critical and ongoing part of all EHR implementations and fine-tuning; to meet Stage 1 criteria, it has to focus on the specific data elements associated with Stage 1, including field entries specific to the provider, such as CDS rule parameters and specialty performance measure metrics.

## 2. Establish Effective Workflows to Reinforce Data Entry (Including Medication Reconciliation)

EHR data entry success and efficiency can be significantly enhanced with effective workflows. Workflows not only provide a structured routine to help ensure regular and comprehensive data entry, but also go a long way toward helping physicians and other providers make effective use of the EHR — a critical advantage in this age of 12-minute visits. Candidates for workflows include medication reconciliation and vital signs (blood pressure, pulse, etc.), patient history information (e.g., smoking status), pediatric growth and development chart data point, and list (allergy, problem, current medication) entry.

The key to the success of many workflow redesigns is developing teams and assigning roles. Medical assistants and/or nurses measure height, weight, blood pressure and other vital signs; review current medications and allergies with the patient; and queue this data (including proposed updates and changes) for provider review. The provider then checks and confirms findings and signs off on them as patient record entries.

Medical assistants and nurses can also play similar roles in medication reconciliation. Examples include not only questioning patients about medications (including over-the-counter) they actually are and are not taking (during "relevant encounters"), but also queuing up medication information from patient transition records and notifications, such as discharge summaries and care plans for provider review. One thing workflows should not do or be expected to do is eliminate the provider's role. Providers always take final responsibility for patient record entries made as a result of workflows and in some cases (such as problem list update) need to manage the workflow alone.

#### 3. Drive Provider Involvement in Adoption of the EHR

One thing EHR implementers inevitably and quickly learn is that unless providers become routine and committed EHR users, it is difficult to realize any EHR goals and objectives, including meaningful use. For one thing, EHR data is not consistent and comprehensive unless every provider uses (and consistently uses) the system. The same is true of the success of functions and features such as CPOE, CDS and healthcare maintenance. An interesting effect when providers are committed to EHRs and system features (such as when they help design a particular feature or help train other providers in system use) is that they go out of their way to help trouble-shoot and otherwise make the feature and overall system work.

The message is that physician and other eligible professional involvement and cooperation in the rollout, as well as use of the EHR, is important to meaningful use as well as overall system success. That commitment requires at least training and some kind of discipline (such as peer pressure or upper management decree). However, an even more effective level comes if providers are involved with system planning and rollout (the earlier the better), and when they are prepared for and then see the value they can get from using system features. Examples include seeing the reduced prescription error rates from e-prescribing and the option to track order statuses and results when they use integrated CPOE.

#### 4. Computer-Based Provider Order Entry (CPOE)

There are two facts eligible professionals and practices need to understand about CPOE meaningful use criteria: The first is that the measure for *all* stages (including Stage 1: 80 percent) applies to all orders, including laboratory, radiology, referral, medication, physical therapy and other services. The second is that to satisfy Stage 1 (and subsequent Stage 2 and Stage 3) rates, each qualified order has to be *directly* entered by the *authorizing provider*. (This does not mean that for

"To determine the percentage electronically entered, an organization will have to count all orders, including paper, and do the math."<sup>9</sup>

Michele Fronckiewicz, Cincinnati Children's Hospital Medical Center Stage 1, 80 percent of each type of order has to be entered via CPOE, but it does mean that 80 percent of cumulative orders must be entered via CPOE.)

The key to meeting this challenge is obviously getting authorized providers to use CPOE, and, as is the case with other challenges, workflows can help. Paper capture forms transcribed by other users should be avoided at all reasonable costs. However, having nurses and other users queue some orders (such as perdisease protocols or routine visit templates) that providers can review, modify as necessary and submit is an effective way to relieve providers of unnecessary "clerical" work without relieving them of their responsibility for actually placing the order. Standard orders and order sets associated with specific problems and visit types can also make it easier. However, the ultimate secret to successful CPOE is making sure every ordering provider gains an understanding of how CPOE works and how to use it, and enforcing its use. Practices are also strongly encouraged to integrate order transmittal and tracking when implementing CPOE. It is not specifically required for Stage 1, but the resulting provider convenience (of being able to track order status and link to results) goes a long way toward reinforcing CPOE use.

#### 5. Start E-Prescribing — as Soon as Possible

Strictly speaking, e-prescribing is part of CPOE, but both the ONC-defined criteria and its special demands make it a challenge on its own. Stating the Stage 1 e-prescribing challenge is simple: E-prescribe at least 75 percent of permissible prescriptions. The latest overall nationwide rate (end of 2009) of just 12 percent is a strong signal that meeting the measure is a challenge.

Part of what is necessary to overcome the challenge is under the direct control of eligible professional practices: configure the EHR with an e-prescribing module, subscribe to networks that facilitate transmittal, and train users in and enforce use of the systems. However, there are also challenges outside their direct control that eligible professionals and practices need to track and pressure other stakeholders to resolve. The two most prominent are: a) pharmacies that are still not equipped to receive and process e-prescriptions (40 percent of independents), and b) current Drug Enforcement Agency (DEA) prohibitions of e-prescribing controlled substances. Efforts underway include price-reductions Surescripts recently announced to encourage more independent pharmacies to participate in its network,<sup>10</sup> and a DEA interim final rule proposal to permit controlled substance e-prescribing by June 2010.<sup>11</sup> The DEA rule comes with its own challenges, including system certification, provider registration, two-factor authentication of each e-prescription (including using a token or biometric identification), controlled substance e-prescription logs and log reviews, and internal audits.<sup>12</sup>

#### 6. Develop a Process for Managing Clinical Decision Support (CDS)

A nuance important to understand about clinical decision support criteria is that the required Stage 1 meaningful use of five CDS rules has to be demonstrated by *each eligible professional.* In multispecialty and multiprovider practices, that may mean having to implement a separate subset of rules for each specialty and/or provider, because those five rules also have to be relevant to the specialty or otherwise a high clinical priority. For example, a reminder to order prothrombin time tests for patients taking anticoagulants is absolutely appropriate for primary care providers, but is not appropriate for a dermatologist seeing the same patients.

The net effect is that although the Stage 1 CDS requirement (five rules per provider) may appear to be simple, it is likely to be demanding, and every practice aspiring to meaningful use is encouraged to design and use a robust process for designing, developing and implementing rules. That process should include review and approval, specification documentation, development and testing, and finally formal release of each rule, including version documentation and control. This process puts practices in a position to get started with rules (and rule components) that can be shared among providers and specialties, and expand them both to qualify more providers and expand the kinds and number of rules used — as Stage 2, Stage 3 and health care demands in general expand.

Also, as previously discussed (in the "Capture the Data" section), rules require access to specific patient data points, and rule design should include thorough review of each parameter referenced to be sure the data is accurately captured, routinely updated, and is stored in the expected format (e.g., code, specified text, and if numeric the required measurement system — *metric*, etc.).

#### 7. Implement Patient Health Information Exchange Workflows

Patient health information exchange criteria require communication with patients based on and using the EHR. It includes sending notifications (of need for routine or follow-up care generated by EHR system features) and sharing care information such as visit summaries and test results. One of the challenges arising from Stage 1 criteria is that in order to both make the communication convenient for patients and accommodate practices without PHRs and/or patient portals, ONC has specified options. For example, providers must give patients the option to receive health maintenance and notifications via either Internet-based messaging or traditional methods, and practices have a choice of media (PHR, portal, USB storage devices, etc.) to use when providing patients with required electronic copies of their health information.

Sharing the information and managing the options represent yet another need for workflows. Examples include:

- Notification: processes to collect and store information about how patients choose to be notified when they are due for routine or follow-up care, plus management of separate system-triggered alert delivery processes (e.g., automatic patient portal messaging, printed letters, telephone reminder lists).
- Visit Summaries: a visit exit process that includes printing and delivering summaries to patients, or if patient portal or PHR delivery is an option, logging/fulfilling that request.
- Copies of Electronic Data: processes for collecting, logging, and fulfilling requests. If portable media, such as CDs and USB drives are used, this includes manual controls to be sure copies get to the right patients and that confidentiality and security of the information is not otherwise compromised. Mobile media security and confidentiality standards, such as whether passwords or other protection such as encryption are required, are also still being defined and must be tracked for compliance.

#### 8. Formulate a Provider Health Information Exchange Strategy

Stage 1 demonstration of interoperability with other EHR systems is limited to, "one test of a certified EHR technology's capacity to electronically exchange key clinical information."<sup>14</sup> However, even testing goes more smoothly and is more likely to succeed when substantial planning and development of a robust exchange strategy is undertaken. A network for exchanging data in production mode (HIE network, interfaces, etc.) is not required for testing, but EHR system exchange functions and features need to be installed, configured and readied for use.

Those functions and features are required for certification, but with most EHR products they are new and require the latest version of the system, and in many cases separate purchase of one or more additional system modules. They also should be informally tested before formal testing, as well as production use. Key features to look for include the ability to create summary patient data packets (such as problem list, drug allergies and test results) for transmittal, receive packets from other systems for display and incorporation into the record, and preserve the coding and structure of the data exchanged. However, eligible professionals (particularly those selecting new EHR products) are strongly advised to also examine the features for usability, particularly how much manual intervention by the provider is required, whether that intervention is reasonable (e.g., contributes to data integrity), and includes an intuitive and otherwise straightforward user interface.

#### 9. Ensure Privacy and Security Compliance

The challenge to privacy and security criteria compliance comes not so much from new demands as from concern that existing HIPAA regulations have

"We also anticipate redefining our objectives to include not only the capturing of data in electronic format but also the exchange (both transmission and receipt) of that data in increasingly structured formats."<sup>13</sup> ONC not been carefully addressed, and that enforcement of breaches (such as recently publicized thefts of storage devices with unprotected patient data) is being increased.

That makes the required privacy and security assessment important — as a means of identifying and addressing potential workflow and other weaknesses. However, many of these are common sense steps practices should look for and take as the EHR makes it easier to share and access patient information. Examples include being sure to password or otherwise protect electronic patient records distributed via mobile media, logging distribution and receipt of that media, and instituting workflows (such as HIE "opt in/opt out" processing) to obtain and record (and of course enforce) patient agreement or refusal to share their electronic records with other providers and stakeholders.

#### 10. Initiate EHR-Based Quality Performance Measurement Support

Meaningful use makes quality performance measurement support a required integral part of EHR operation. The absolute key to successfully meeting these criteria is what is discussed in the first challenge — "Capture the Data." In the context of performance measurement this means ensuring that every data element in the NPRM Measure Group Tables that applies to participating eligible professional(s) is both: a) configured as a structured data element that is captured or stored as a code or other appropriate format, and b) is reliably and accurately captured via downloads from other systems or data entry. The need, of course, is having this data in formats that the system can subsequently search, retrieve, and aggregate and compare for reporting.

Two logistical issues surrounding this challenge: a) demonstration requirements for 2011 will be attestation, and electronic submission of one measure for 2012, and b) required measures are still being determined (see Table 1 footnote to the "Performance Measurement Reporting" item).

#### Meeting Meaningful Use Criteria: What Is the Bottom Line?

There are two major impacts meaningful use is having and will continue to have on the industry, including eligible professionals. The first is that as a means for realizing incentives most providers and practices cannot afford to overlook, it stands to initiate a momentum of EHR adoption in the U.S. that has been overdue for decades. There is already evidence of momentum, including hospitals reaching out to help eligible professionals acquire and meaningfully use EHRs, what one CMIO running a physician assistance program called a "feeding frenzy"<sup>15</sup> to describe provider interest, and EHR vendor support ranging from guaranteed certification to interest-free loans to purchase their products.

The second is that as a program that is being rolled out in three stages, meaningful use requires not just immediate efforts, but also a long-term plan and commitment to continuously evolve the EHR system and its utilization over at least the next five years. The message to eligible professionals is to avoid shortsighted solutions when meeting Stage 1 challenges and keep an eye on the future. For example, when addressing Stage 1 interoperability testing, keep in mind likely Stage 2 and Stage 3 requirements such as an HIE or other connection and factor that into the test; and as noted previously in the "Clinical Decision Support" challenge section, design processes for meeting Stage 1 criteria that are robust enough to support the inevitably greater volumes that will follow in Stage 2 and Stage 3.

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"We anticipate raising the threshold for these objectives in future definitions of meaningful use as the capabilities of HIT infrastructure increases."<sup>16</sup>

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