Meaningful Use White Paper Series
Paper no. 5b: Measures Reporting for Eligible Hospitals
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Measures Reporting for Eligible Hospitals

The fourth paper in this series reviewed the EHR certification requirements related to the final rule on meaningful use. This paper returns the focus to the meaningful use rule, offering an overview of the health IT functional measures for eligible hospitals. A companion paper (5a) offers an overview of the requirements for providers.

Eligible hospitals that intend to qualify for the meaningful use EHR incentive program can apply beginning in January 2011. In the first year, they need only demonstrate meaningful use for a 90-day period. This must occur during the federal fiscal year, which runs through September.

Criteria and Objectives

To qualify as a meaningful user an eligible hospital must meet the program's objectives and their associated measures. Except as otherwise indicated, the objectives must be satisfied by an individual hospital as determined by its unique CMS certification numbers.

CMS received many comments on its proposed rule, published in January 2010, regarding the need to align the Medicaid meaningful use requirements with those of the Medicare program. CMS agreed with this need; however, it reserved the right to make revisions over time, and it supports the ability of states to reinforce their public health priorities and goals. Because of this CMS is willing to reconsider tailoring of certain public health objectives.

CMS originally put forward 27 required measures in the proposed rule. Based on response to the proposal, CMS made adjustments in the final rule allowing hospitals some flexibility in meeting the reporting requirements.

The measures are largely maintained from the proposed rule, but CMS divided them into two categories—core and menu. Eligible hospitals must successfully meet the measures of each of the core set's 14 objectives.

The menu set includes 10 additional objectives, of which eligible professionals will choose five. The items not chosen will be deferred to stage 2 of the program. A hospital may choose any five objectives, with the caveat that at least one of the menu objectives includes a population and public health measure. CMS encourages eligible hospitals to implement all of the functionalities listed in stage 1, though this is not mandatory.

The core and menu sets appear in an appendix at the end of this paper, with the changes between the proposed and final rules noted.

In addition, AHIMA offers the certification criteria and meaningful use objectives mapped against the content exchange standards, implementation specifications, and vocabulary standards. This is a member resource, and log in is required (see http://library.ahima.org/xpedio/groups/secure/documents/ahima/bok1_047867.pdf).

CMS anticipates all menu objectives in stage 1 to become a part of the core set in stage 2. In addition, it expects to raise the stage 1 thresholds and add new objectives. New goals will go beyond capturing data in electronic format to include the exchange of the data in structured formats. The intent of escalating measures "is to ensure that meaningful use encourages patient-centric, interoperable health information exchange across provider organizations regardless of provider's business affiliation or EHR platform," CMS writes.

Measures of Health IT Functionality

As part of its proposed rule, CMS noted that "without a measure for each objective we believe that the definition of meaningful use becomes too ambiguous to fulfill its purpose. The use of measures also creates the flexibility to account for realities of current HIT products and infrastructure and the ability to account for future advances."

Many of the measures are percentages for which CMS provides a numerator, denominator, and a percentage threshold. In most instances the numerator is the number of activities or functions performed using an EHR. Denominators are based on either unique patients (regardless of whether maintained in the EHR) or counting actions using patients whose records are maintained using EHRs.

The list of meaningful use objectives and measures contained in the final rule provides further rationale and detail on what must be recorded and reported using certified EHR technology (pp. 44326 –69). Not all of the measures are reported with a percentage. For instance, the requirement for implementation of drug-drug, drug-allergy interaction checks only requires that the eligible hospital attest it has enabled the functionality for the entire reporting period.

Clinical decision support rules are another example of a measure that will require attestation, while certain capabilities such as exchange of electronic information requires attestation that the system has been tested (and not necessarily that an ongoing exchange is under way). Hospitals will have to develop audit trails of these attestations, as it is expected that audits will occur and all meaningful use-related documentation must be kept for six years.

Privacy and Security Requirements

A priority of the meaningful use program is to "ensure adequate privacy and security protections for personal health information." The measure requires that the hospital complete a security risk analysis as prescribed under the HIPAA security rules and correct identified security deficiencies as part of its risk management process. HIPAA requires that such risk assessments be made periodically.

In this case, such an assessment would not only include security as it relates to the EHR, EHR modules, and other technology, but also the full hospital system that is affected by the increase or introduction of EHR technology as required for meaningful use.

Hospitals should also note that on July 14, 2010, the Office for Civil Rights issued a notice of proposed rulemaking as required under the HITECH proposing modifications to the HIPAA privacy, security, and enforcement rules.

The next papers in this series cover the reporting of clinical quality measures using EHRs.

References

Centers for Medicare and Medicaid Services. "Medicare and Medicaid Programs Electronic Health Record Incentive Program." Federal Register 75, no. 144 (July. 28, 2010): 44314–588. Available online at http://edocket.access.gpo.gov/2010/pdf/2010-17207.pdf.

Department of Health and Human Services. "Health Information Technology: Initial Set of Standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology; Final Rule." *Federal Register* 75, no. 144 (July 28, 2010): 44590–654. Available online at http://edocket.access.gpo.gov/2010/pdf/2010-17210.pdf.

Department of Health and Human Services. " Modifications to the HIPAA Privacy, Security, and Enforcement Rules under the Health Information Technology for Economic and Clinical Health Act; Proposed Rule. *Federal Register* 75, no. 134 (July 14, 2010): 40868–924. Available online at http://edocket.access.gpo.gov/2010/pdf/2010-16718.pdf.

Appendix
Meaningful Use: Review of Changes to Objectives and Measures in Final Rule

The proposed rule on meaningful use established 27 objectives that participants would meet in stage 1 of the program. The final rule largely maintains these objectives but divides them into “core” and “menu” sets.

Participants must achieve each objective in the core set. There are 15 objectives for eligible professionals and 14 for eligible hospitals and critical access hospitals.

The menu set includes 10 additional objectives, of which eligible professionals and hospitals will choose five. The items not chosen will be deferred to stage 2 of the program. (There are 12 objectives in total, with 10 applying to eligible professionals and 10 to hospitals.)

Participants may select any five objectives from the menu set, with one limitation. They must choose at least one population and public health measure, a requirement made to ensure these goals receive sufficient attention.

In all, two objectives were **added**—both to the menu set:

- Record advance directives for patients 65 years old or older
- Use certified EHR technology to identify patient-specific education resources and provide those resources to the patient if appropriate

Two objectives were **removed,** deferred to later stages:

- Check insurance eligibility electronically from public and private payers (at least 80 percent of all unique patients)
- Submit claims electronically to public and private payers (at least 80 percent of all claims filed electronically)

Overall, the final rule lowered the bar on most of the measures associated with the objectives.

The first four columns in the following review are reproduced from table 2 of the final rule. The final column offers a description of the change from the proposed rule. Not noted here are changes to wording that add critical access hospitals (CAHs) to the hospital objectives and measures.

The review was based on the display copy of the rule released July 13, 2010. Final publication of the rule was scheduled for July 28 in the *Federal Register,* www.gpoaccess.gov: "Medicare and Medicaid Programs; Electronic Health Record Incentive Program."

Table 2: Stage 1 Meaningful Use Objectives and Associated Measures Sorted by Core and Menu Set

CORE SET				
	Stage 1 Objectives			
Health Outcomes Policy Priority	**Eligible Professionals**	**Eligible Hospitals and CAHs**	**Stage 1 Measures**	**Changes from Proposed Rule**
Improving quality, safety, efficiency, and reducing health disparities	Use CPOE for medication orders directly entered by any licensed healthcare professional who can enter orders into the medical record per state, local and professional guidelines	Use CPOE for medication orders directly entered by any licensed healthcare professional who can enter orders into the medical record per state, local and professional guidelines	More than 30% of unique patients with at least one medication in their medication list seen by the EP or admitted to the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) have at least one medication order entered using CPOE	• Clarified terms of order entry within objective • Reduced threshold for EPs from 80% of all orders • Increased threshold for hospitals from 10% of all orders
	Implement drug-drug and drug-allergy interaction checks	Implement drug-drug and drug-allergy interaction checks	The EP/eligible hospital/CAH has enabled this functionality for the entire EHR reporting period	• Moved drug formulary check to menu set
	Generate and transmit permissible prescriptions electronically (eRx)		More than 40% of all permissible prescriptions written by the EP are transmitted electronically using certified EHR technology	• Reduced threshold from 75%

CORE SET				
Health Outcomes Policy Priority	**Stage 1 Objectives**		**Stage 1 Measures**	**Changes from Proposed Rule**
	Eligible Professionals	**Eligible Hospitals and CAHs**		
	Record demographics: ○ preferred language ○ gender ○ race ○ ethnicity ○ date of birth	Record demographics: ○ preferred language ○ gender ○ race ○ ethnicity ○ date of birth ○ date and preliminary cause of death in the event of mortality in the eligible hospital or CAH	More than 50% of all unique patients seen by the EP or admitted to the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) have demographics recorded as structured data	• Deleted requirement to record insurance type • Reduced threshold from 80% • Clarified reporting of cause of death
	Maintain an up-to-date problem list of current and active diagnoses	Maintain an up-to-date problem list of current and active diagnoses	More than 80% of all unique patients seen by the EP or admitted to the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) have at least one entry or an indication that no problems are known for the patient recorded as structured data	• Removed reference to ICD-9-CM and SNOMED (described in the EHR standards rule)
	Maintain active medication list	Maintain active medication list	More than 80% of all unique patients seen by the EP or admitted to the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) have at least one entry (or an indication that the patient is not currently prescribed any medication) recorded as structured data	• Modified measure from "at least" 80%

CORE SET				
Health Outcomes Policy Priority	**Stage 1 Objectives**		**Stage 1 Measures**	**Changes from Proposed Rule**
	Eligible Professionals	**Eligible Hospitals and CAHs**		
	Maintain active medication allergy list	Maintain active medication allergy list	More than 80% of all unique patients seen by the EP or admitted to the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) have at least one entry (or an indication that the patient has no known medication allergies) recorded as structured data	• Modified measure from "at least" 80%
	Record and chart changes in vital signs: ○ Height ○ Weight ○ Blood pressure ○ Calculate and display BMI ○ Plot and display growth charts for children 2-20 years, including BMI	Record and chart changes in vital signs: ○ Height ○ Weight ○ Blood pressure ○ Calculate and display BMI ○ Plot and display growth charts for children 2-20 years, including BMI	For more than 50% of all unique patients age 2 and over seen by the EP or admitted to eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23), [record] height, weight and blood pressure are recorded as structured data	• Reduced threshold from 80% • Added height and weight to measure • Removed BMI and growth chart from measure • Added structured data to measure
	Record smoking status for patients 13 years old or older	Record smoking status for patients 13 years old or older	More than 50% of all unique patients 13 years old or older seen by the EP or admitted to the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) have smoking status recorded as structured data	• Reduced threshold from 80% • Added structured data to measure

CORE SET				
Health Outcomes Policy Priority	**Stage 1 Objectives**		**Stage 1 Measures**	**Changes from Proposed Rule**
	Eligible Professionals	**Eligible Hospitals and CAHs**		
	Implement one clinical decision support rule relevant to specialty or high clinical priority along with the ability to track compliance with that rule	Implement one clinical decision support rule related to a high priority hospital condition along with the ability to track compliance with that rule	Implement one clinical decision support rule	• Reduced threshold from 5
	Report ambulatory clinical quality measures to CMS or the States	Report hospital clinical quality measures to CMS or the States	For 2011, provide aggregate numerator, denominator, and exclusions through attestation as discussed in section II(A)(3) of this final rule For 2012, electronically submit the clinical quality measures as discussed in section II(A)(3) of this final rule	(no change)
Engage patients and families in their health care	Provide patients with an electronic copy of their health information (including diagnostic test results, problem list, medication lists, medication allergies), upon request	Provide patients with an electronic copy of their health information (including diagnostic test results, problem list, medication lists, medication allergies, discharge summary, procedures), upon request	More than 50% of all patients of the EP or the inpatient or emergency departments of the eligible hospital or CAH (POS 21 or 23) who request an electronic copy of their health information are provided it within 3 business days	• Amended objective to read "*medication* allergies" • Reduced threshold from 80% • Lengthened time requirement from 48 hours

CORE SET				
Health Outcomes Policy Priority	**Stage 1 Objectives**		**Stage 1 Measures**	**Changes from Proposed Rule**
	Eligible Professionals	**Eligible Hospitals and CAHs**		
		Provide patients with an electronic copy of their discharge instructions at time of discharge, upon request	More than 50% of all patients who are discharged from an eligible hospital or CAH's inpatient department or emergency department (POS 21 or 23) and who request an electronic copy of their discharge instructions are provided it	• Removed requirement to provide copy of procedures • Reduced threshold from 80% • Specified both inpatient and emergency department discharges
	Provide clinical summaries for patients for each office visit		Clinical summaries provided to patients for more than 50% of all office visits within 3 business days	• Reduced threshold from 80% • Added time requirement of 3 business days
Improve care coordination	Capability to exchange key clinical information (for example, problem list, medication list, medication allergies, diagnostic test results), among providers of care and patient authorized entities electronically	Capability to exchange key clinical information (for example, discharge summary, procedures, problem list, medication list, medication allergies, diagnostic test results), among providers of care and patient authorized entities electronically	Performed at least one test of certified EHR technology's capacity to electronically exchange key clinical information	• Amended objective to read "*medication* allergies"
Ensure adequate privacy and security protections for personal health information	Protect electronic health information created or maintained by the certified EHR technology through the implementation of appropriate technical capabilities	Protect electronic health information created or maintained by the certified EHR technology through the implementation of appropriate technical capabilities	Conduct or review a security risk analysis per 45 CFR 164.308 (a)(1) and implement security updates as necessary and correct identified security deficiencies as part of its risk management process	• Added requirement to correct deficiencies

MENU SET				
Health Outcomes Policy Priority	**Stage 1 Objectives**		**Stage 1 Measures**	**Changes from Proposed Rule**
	Eligible Professionals	**Eligible Hospitals and CAHs**		
Improving quality, safety, efficiency, and reducing health disparities	Implement drug-formulary checks	Implement drug-formulary checks	The EP/eligible hospital/CAH has enabled this functionality and has access to at least one internal or external drug formulary for the entire EHR reporting period	• Separated from CPOE objective • Added access requirement
		Record advance directives for patients 65 years old or older	More than 50% of all unique patients 65 years old or older admitted to the eligible hospital's or CAH's inpatient department (POS 21) have an indication of an advance directive status recorded	New objective
	Incorporate clinical lab-test results into certified EHR technology as structured data	Incorporate clinical lab-test results into certified EHR technology as structured data	More than 40% of all clinical lab tests results ordered by the EP or by an authorized provider of the eligible hospital or CAH for patients admitted to its inpatient or emergency department (POS 21 or 23) during the EHR reporting period whose results are either in a positive/ negative or numerical format are incorporated in certified EHR technology as structured data	• Reduced threshold from 50% • Further specified lab tests

MENU SET				
	Stage 1 Objectives			
Health Outcomes Policy Priority	**Eligible Professionals**	**Eligible Hospitals and CAHs**	**Stage 1 Measures**	**Changes from Proposed Rule**
	Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research or outreach	Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research or outreach	Generate at least one report listing patients of the EP, eligible hospital or CAH with a specific condition	(no change)
	Send reminders to patients per patient preference for preventive/follow up care		More than 20% of all unique patients 65 years or older or 5 years old or younger were sent an appropriate reminder during the EHR reporting period	• Reduced threshold from 50% • Modified age requirements from 50 years or older
Engage patients and families in their health care	Provide patients with timely electronic access to their health information (including lab results, problem list, medication lists, medication allergies) within four business days of the information being available to the EP		More than 10% of all unique patients seen by the EP are provided timely (available to the patient within four business days of being updated in the certified EHR technology) electronic access to their health information subject to the EP's discretion to withhold certain information	• Amended objective to read "*medication* allergies" • Modified time requirement to specify business days
	Use certified EHR technology to identify patient-specific education resources and provide those resources to the patient if appropriate	Use certified EHR technology to identify patient-specific education resources and provide those resources to the patient if appropriate	More than 10% of all unique patients seen by the EP or admitted to the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) are provided patient-specific education resources	New objective

MENU SET				
	Stage 1 Objectives			
Health Outcomes Policy Priority	**Eligible Professionals**	**Eligible Hospitals and CAHs**	**Stage 1 Measures**	**Changes from Proposed Rule**
Improve care coordination	The EP, eligible hospital or CAH who receives a patient from another setting of care or provider of care or believes an encounter is relevant should perform medication reconciliation	The EP, eligible hospital or CAH who receives a patient from another setting of care or provider of care or believes an encounter is relevant should perform medication reconciliation	The EP, eligible hospital or CAH performs medication reconciliation for more than 50% of transitions of care in which the patient is transitioned into the care of the EP or admitted to the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23)	• Specified triggers • Reduced threshold from 80%
	The EP, eligible hospital or CAH who transitions their patient to another setting of care or provider of care or refers their patient to another provider of care should provide summary of care record for each transition of care or referral	The EP, eligible hospital or CAH who transitions their patient to another setting of care or provider of care or refers their patient to another provider of care should provide summary of care record for each transition of care or referral	The EP, eligible hospital or CAH who transitions or refers their patient to another setting of care or provider of care provides a summary of care record for more than 50% of transitions of care and referrals	• Specified triggers • Reduced threshold from 80%

MENU SET				
	Stage 1 Objectives			
Health Outcomes Policy Priority	**Eligible Professionals**	**Eligible Hospitals and CAHs**	**Stage 1 Measures**	**Changes from Proposed Rule**
Improve population and public health	Capability to submit electronic data to immunization registries or Immunization Information Systems and actual submission in accordance with applicable law and practice	Capability to submit electronic data to immunization registries or Immunization Information Systems and actual submission in accordance with applicable law and practice	Performed at least one test of certified EHR technology's capacity to submit electronic data to immunization registries and follow up submission if the test is successful (unless none of the immunization registries to which the EP, eligible hospital or CAH submits such information have the capacity to receive the information electronically)	• Added immunization information systems • Added follow up requirement
		Capability to submit electronic data on reportable (as required by state or local law) lab results to public health agencies and actual submission in accordance with applicable law and practice	Performed at least one test of certified EHR technology's capacity to provide electronic submission of reportable lab results to public health agencies and follow-up submission if the test is successful (unless none of the public health agencies to which eligible hospital or CAH submits such information have the capacity to receive the information electronically)	• Amended objective to specify applicable law and practice

MENU SET				
	Stage 1 Objectives			
Health Outcomes Policy Priority	Eligible Professionals	Eligible Hospitals and CAHs	Stage 1 Measures	Changes from Proposed Rule
	Capability to submit electronic syndromic surveillance data to public health agencies and actual submission in accordance with applicable law and practice	Capability to submit electronic syndromic surveillance data to public health agencies and actual submission in accordance with applicable law and practice	Performed at least one test of certified EHR technology's capacity to provide electronic syndromic surveillance data to public health agencies and follow-up submission if the test is successful (unless none of the public health agencies to which an EP, eligible hospital or CAH submits such information have the capacity to receive the information electronically)	• Amended objective to specify applicable law and practice