Final Rule Meaningful Use Objectives and Measures –Stage 1

Adapted from Table 2 and Table 3: Stage 1 Meaningful Use Objectives and Associated Measures Sorted by Core and Menu Set from CMS Medicare and Medicaid Programs; Electronic Health Record Incentive Program Final Rule 7/28/10
and the ONC Health Information Technology: Initial Set of Standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology Final Rule 7/28/10

CORE SET - Eligible Professionals, Eligible Hospital, or CAH required to satisfy all core set of objectives

Health Outcomes Policy Priority	Meaningful Use Category	EPs	Hospitals	Measure Brief	Change from Proposed NPRM	POS 23	Unique Patients Denominator	Actions in a Certified EHR Denominator	Yes/No Attestation	Eligible Professionals	Hospitals	Stage 1 Measures
Improving quality, safety, efficiency, and reducing health disparities	CPOE - Computerized provider order entry	●	●	30%	↑ % and ↓ order type	■		❖		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**
	Implement drug-drug and drug allergy interaction checks	●	●	Enabled	↔				✓	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
	ePrescribing *[EP only]*	●		40%	↓			❖		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
	Demographics	●	●	50%	↓	■	♦			Record demographics ● preferred language ● gender ● race ● ethnicity ● date of birth	Record demographics ● preferred language ● gender ● race ● ethnicity ● date of birth ● date of birth 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
	Problem List	●	●	80%	↔	■	♦			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
	Medication List	●	●	80%	↔	■	♦			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
	Medication Allergy List	●	●	80%	↔	■	♦			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
	Vital Signs	●	●	50%	↓	■		❖		Record and chart changes in vital signs: o Height o Weight o Blood pressure o Calculate and display BMI o Plot and display growth charts for children 2-20 years, including BMI	Record and chart changes in vital signs: o Height o Weight o Blood pressure o Calculate and display BMI o 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), height, weight and blood pressure are recorded as structured data
	Smoking Status	●	●	50%	↓	■		❖		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
	Clinical Decision Support	●	●	One rule	↓				✓	Implement one clinical decision support rule relevant to specialty or high clinical priority along with the ability to track compliance that rule	Implement one clinical decision support rule relevant to specialty or high clinical priority along with the ability to track compliance that rule	Implement one clinical decision support rule
	Calculate and Transmit CMS Quality Measures	●	●	Hospitals or CAH - 15 EP - 6					✓2011 submit electronic 2012	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
Engage patients and families in their health care	Electronic Copy of Health Information	●	●	50%	↓	■		❖		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
	Electronic Copy of Discharge Instructions *[Hospital only]*		●	50%	↓	■		❖			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
	Clinical Summaries for each office visit *[EP only]*	●		50%	↓			❖		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
Improve care coordination	Exchange Key Clinical Information	●	●	One test	↔				✓	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, problem list, medication list, medication allergies, diagnostic test results), among providers of care and patient authorized entities electronically	Performed at least one test
Ensure adequate privacy and security protections for personal health information	Privacy / Security	●	●	Conduct or review Security risk analysis	↔				✓	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

MENU SET – Select 5 Measures that includes one from Population Health – The other 5 Measures defer to Stage 2

Health Outcomes Policy Priority	Meaningful Use Category	EPs	Hospitals	Measure Brief	Change from Proposed NPRM	POS 23	Unique Patients Denominator	Actions in a Certified EHR Denominator	Yes/No Attestation	Eligible Professionals	Hospitals	Stage 1 Measures
Improving quality, safety, efficiency, and reducing health disparities	Implement drug-formulary checks	●	●	Enabled	↑				✓	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
	Advance Directives *[Hospital only]*		●	50%	↑			❖			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
	Lab Results into EHR	●	●	40%	↓	■		❖		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
	Patient List	●	●	One List	↔				✓	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
	Patient Reminders *[EP only]*	●		20%	↓			❖		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
Engage patients and families in their health care	Timely Electronic Access to Health Information *[EP only]*	●		10%	↓		♦			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
	Patient Specific Education	●	●	10%	↑	■	♦			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
Improve care coordination	Medication Reconciliation	●	●	50%	↓	■		❖		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)
	Summary of Care	●	●	50%	↓			❖		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
Improve population and public health	Immunization Registries	●	●	One test	↔				✓	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)
	Lab Results to Public Health Agencies *[Hospital only]*		●	One test	↔				✓		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)
	Syndromic Surveillance	●	●	One test	↔				✓	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)

Certification Criteria (excerpt)

Meaningful Use Category	NRPM Certification Language	FINAL RULE - Certification Language
Lab Results to Public Health Agencies	**Interim Final Rule Text:** Electronically record, retrieve, and transmit reportable clinical lab results to public health agencies in accordance with the standard specified in §170.205(f)(1) and, at a minimum, the version of the standard specified in §170.205(f)(2).	**Final Rule Text: §170.306(g)** Reportable lab results. Electronically record, modify, retrieve, and submit reportable clinical lab results in accordance with the standard (and applicable implementation specifications) specified in §170.205(c) and, at a minimum, the version of the standard specified in §170.207(c).
Syndromic Surveillance	**Interim Final Rule Text:** Public health surveillance. Electronically record, retrieve, and transmit syndrome-based public health surveillance information to public health agencies in accordance with one of the standards specified in §170.205(g).	**Final Rule Text: §170.302(l)** Public health surveillance. Electronically record, modify, retrieve, and submit syndrome-based public health surveillance information in accordance with the standard (and applicable implementation specifications) specified in §170.205(d)(1) **or** §170.205(d)(2).

Required Data Elements for Corresponding Meaningful Use Objective as defined in the EHR Incentive Programs Final Rule

Record demographics
(Eligible Professionals)
- Preferred language
- Gender
- Race
- Ethnicity
- Date of Birth

Record demographics
(Eligible Hospitals or CAH)
- 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

Record and chart changes in vital signs:
(Eligible Professionals, Eligible Hospitals or CAH)
- Height
- Weight
- Blood pressure
- Calculate and display BMI
- Plot and display growth charts for children 2-20 years, including BMI

Requirement for Certification by an Authorized Testing and Certification Body (ATCB) for CPOE Module:
Enable a user to electronically record, store, retrieve, and modify, at a minimum, the following order types:
(1) Medications
(2) Laboratory
(3) Radiology/imaging

Summary of care record for each transition of care or referral in data elements corresponding specified standards noted above
(A) Problems
(B) Procedures
(C) Laboratory test results
(D) Medications

ADDITIONAL NOTE - Item not in the NPRM − New criteria required for successfully completing ARRA Certification of an EHR or EHR Module Final Rule Text:

§170.302(n) Automated measure calculation. For each meaningful use objective with a percentage-based measure, electronically record the numerator and denominator and generate a report including the numerator, denominator, and resulting percentage associated with each applicable meaningful use measure.

Legend

- ● Applies to that row / column meaningful use objective or
- ↑ Measure increased from proposed rule
- ↔ Measure unchanged from proposed rule
- ● (green) Select one of the Standards indicated in that row to achieve meaningful use for that objective
- ↓ Measure decreased from proposed rule
- ↑ and ↓ CPOE measure went "up" to 30% from 10% in the NRPM for hospitals, but measure went ↓ in order types to medication only

Denominator and Acromyms Legend

EP Eligible Professionals
- ■ POS 23 included in Hospital Measure [referring to language Emergency Department Point of Service (POS) 23 and Inpatient POS 21 indluded in the Hosptial Measure]
- ♦ Denominator of **Unique Patients** Regardless of Whether the Patient's Records Are Maintained Using Certified EHR Technology
- ❖ Measures with a Denominator of Based on Counting **Actions** for Patients whose Records are Maintained Using Certified EHR Technology
- ❖ (red) Text indicated "Unique Patients" is the denominator section of "Counting Actions for Patients whose Records are Maintained Using Certified EHR Technology
- ✓ Yes/No Attestation

Note - there is no significance to the color scheme of the cells other than ease of viewing the chart –Red font denotes a change in the Final Rule Language from the NPRM Language

"Meaningful Use Stage 1 Final Rule, The White Board Story" – Version 1 – July 28, 2010

This poster is dedicated in honor of all those who have lost loved ones since the IOM Study "To Err is Human" was published in 1999, to all those victims of Katrina who suffered or died since we could not share their records with another location, to my mom who died because she did not have the benefits of an interoperable EHR and her doctors could not share lab results across doctors and across visits, and for my nephew who is paralyzed from a medical error . . .
Please tell this meaningful use story with all the energy and passion that it will take to transform a country . . . We have a big job to do and this is just Stage 1 . . . Let's get going!

Disclaimer - This chart is not an official federal document and has been created for public use and convenience of seeing the "big picture" in one large "white board" created by Robin Raiford, RN-BC, CPHIMS, FHIMSS as a volunteer follow on work done as part of the HITSP Communication, Education and Outreach Committee. Any omissions or corrections, please contact Robin Raiford on Linked In.
Other useful companion posters can be located at www.hitsp.org and click the Education and Outreach tab at the top of the website.

Special Thanks

To the national leadership of David Blumenthal, MD, MPP, Jonathan Perlin, MD, PhD, MSHA, FACP, FACMI, John D. Halamka, MD, MS, Paul Tang, M.D., M.S, the members of the HIT Policy Committee and HIT Standards Committee, the entire staff of ONC, and to Tony Trenkle, Karen Trudel and the entire CMS team − for your tireless efforts and thousands upon thousands of hours of work and spirited discussions in the working groups to make the final rules come to life so this great Meaningful Use White Board Story can be told.

A extra special thanks to John Halamka, MD, MS for his great blog http://geekdoctor.blogspot.com/ and keeping a entire nation informed in plain English and to the entire "HITSP Nation", "HITSP Tiger Teams", and support from the HITSP Education, Communication and Outreach Committee for their technical expertise to explain standards enough so I could understand the federal speak enough to make this poster.

"Think Big, Act Small, Start Now"