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
Improving quality, safety, efficiency, and reducing health disparities	CPOE - Computerized provider order entry	●	●	30%	↑ % and ↓ order type	■		❖	
	Implement drug-drug and drug allergy interaction checks	●	●	Enabled	↔				✓
	ePrescribing *[EP only]*	●		40%	↓			❖	
	Demographics	●	●	50%	↓	■	♦		
	Problem List	●	●	80%	↔	■	♦		
	Medication List	●	●	80%	↔	■	♦		
	Medication Allergy List	●	●	80%	↔	■	♦		
	Vital Signs	●	●	50%	↓	■		❖	
	Smoking Status	●	●	50%	↓	■		❖	
	Clinical Decision Support	●	●	One rule	↓				✓
	Calculate and Transmit CMS Quality Measures	●	●	Hospitals or CAH – 15 EP – 6	↑ to include 2012 electronic transmission and ↓ measure count				✓2011 submit electronic 2012
Engage patients and families in their health care	Electronic Copy of Health Information	●	●	50%	↓	■		❖	
	Electronic Copy of Discharge Instructions *[Hospital only]*		●	50%	↓	■		❖	
	Clinical Summaries for each office visit *[EP only]*	●		50%	↓			❖	
Improve care coordination	Exchange Key Clinical Information	●	●	One test	↔				✓
Ensure adequate privacy and security protections for personal health information	Privacy / Security	●	●	Conduct or review Security risk analysis	↔				✓

Stage 1 Objectives and Stage 1 Measures (Core Set)

Meaningful Use Category	Eligible Professionals	Hospitals	Stage 1 Measures
CPOE - Computerized provider order entry	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	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	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	Record demographics ●preferred language ●gender ● race ● ethnicity ● date of birth	Record demographics ●preferred language ●gender ● race ● ethnicity ● date of birth ● date of birth of 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
Problem List	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	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	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	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	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	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	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
Electronic Copy of Health Information	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		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	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
Exchange Key Clinical Information	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
Privacy / Security	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

Certification Criteria (Core Set)

Meaningful Use Category	NRPM Certification Language	FINAL RULE - Certification Language
CPOE - Computerized provider order entry	**Interim Final Rule Text:** Enable a user to electronically record, store, retrieve, and manage, at a minimum, the following order types: (1) Medications; (2) Laboratory; (3) Radiology/imaging; and (4) Provider referrals.	**Final Rule Text: §170.304(a)** Computerized provider order entry. Enable a user to electronically record, store, retrieve, and modify, at a minimum, the following order types: **(1) Medications; (2) Laboratory; and (3) Radiology/imaging.**
Implement drug-drug and drug allergy interaction checks	**Interim Final Rule Text:** (1)Alerts. Automatically and electronically generate and indicate in real-time, alerts at the point of care for drug-drug and drug-allergy contraindications based on medication list, medication allergy list, age, and computerized provider order entry (CPOE). (3)Customization. Provide certain users with administrator rights to deactivate, modify, and add rules for drug-drug and drug-allergy checking. (4)Alert statistics. Automatically and electronically track, record, and generate reports on the number of alerts responded to by a user.	**Final Rule Text: §170.302(a)** (1) Notifications. Automatically and electronically generate and indicate in real-time, notifications at the point of care for drug-drug and drug-allergy contraindications based on medication list, medication allergy list, and computerized provider order entry (CPOE). (2) Adjustments. Provide certain users with the ability to adjust notifications provided for drug-drug and drug-allergy interaction checks.
ePrescribing	**Interim Final Rule Text:** Enable a user to electronically transmit medication orders (prescriptions) for patients in accordance with the standards specified in §170.205(c).	**Final Rule Text: §170.304(b)** Electronic prescribing. Enable a user to electronically generate and transmit prescriptions and prescription-related information in accordance with: (1) The standard specified in §170.205(b)(1) or §170.205(b)(2); and (2) The standard specified in 170.207(d).
Demographics	**Interim Final Rule Text:** Enable a user to electronically record, modify, and retrieve patient demographic data including preferred language, insurance type, gender, race, ethnicity, and date of birth.	**Final Rule Text: §170.304(c)** Record demographics. Enable a user to electronically record, modify, and retrieve patient demographic data including preferred language, gender, race, ethnicity, and date of birth. Enable race and ethnicity to be recorded in accordance with the standard specified at 170.207(f).
Problem List	**Interim Final Rule Text:** Maintain up-to-date problem list. Enable a user to electronically record, modify, and retrieve a patient's problem list for longitudinal care in accordance with: (1) The standard specified in §170.205(a)(2)(i)(A); or (2) At a minimum, the version of the standard specified in §170.205(a)(2)(i)(B).	**Final Rule Text: §170.302(c)** Final rule text remains the same as Interim Final Rule text, except for references to adopted standards, which have been changed.
Medication List	**Interim Final Rule Text:** Maintain active medication list. Enable a user to electronically record, modify, and retrieve a patient's active medication list as well as medication history for longitudinal care in accordance with the standard specified in §170.205(a)(2)(iv).	**Final Rule Text: §170.302(d)** Maintain active medication list. Enable a user to electronically record, modify, and retrieve a patient's active medication list as well as medication history for longitudinal care.
Medication Allergy List	**Interim Final Rule Text:** Maintain active medication allergy list. Enable a user to electronically record, modify, and retrieve a patient's active medication allergy list as well as medication allergy history for longitudinal care.	**Final Rule Text: Unchanged Now §170.302(e)**
Vital Signs	**Interim Final Rule Text:** (1)Vital signs. Enable a user to electronically record, modify, and retrieve a patient's vital signs including, at a minimum, the height, weight, blood pressure, temperature, and pulse. (2)Calculate body mass index. Automatically calculate and display body mass index (BMI) based on a patient's height and weight. (3) Plot and display growth charts. Plot and electronically display, upon request, growth charts for patients 2-20 years old.	**Final Rule Text: §170.302(f)** (1)Vital signs. Enable a user to electronically record, modify, and retrieve a patient's vital signs including, at a minimum, height, weight, and blood pressure. (2) Unchanged (3) Unchanged
Smoking Status	**Interim Final Rule Text:** Smoking status. Enable a user to electronically record, modify, and retrieve the smoking status of a patient. Smoking status types must include: current smoker, former smoker, or never smoked.	**Final Rule Text: §170.302(g)** Smoking status. Enable a user to electronically record, modify, and retrieve the smoking status of a patient. Smoking status types must include: current every day smoker; current some day smoker; former smoker; never smoker; smoker, current status unknown; and unknown if ever smoked.
Clinical Decision Support	**Interim Final Rule Text:** (1) Implement rules. Implement automated, electronic clinical decision support rules (in addition to drug-drug and drug allergy contraindication checking) according to specialty or clinical priorities that use demographic data, specific patient diagnoses, conditions, diagnostic test results and/or patient medication list. (2) Alerts. Automatically and electronically generate and indicate in real-time, alerts and care suggestions based upon clinical decision support rules and evidence grade. (3) Alert statistics. Automatically and electronically track, record, and generate reports on the number of alerts responded to by a user.	**Final Rule Text: §170.304(e)** (1) Implement rules. Implement automated, electronic clinical decision support rules (in addition to drug-drug and drug allergy contraindication checking) based on the data elements included in: problem list; medication list; demographics; and laboratory test results. (2) Notifications. Automatically and electronically generate and indicate in real-time, notifications and care suggestions based upon clinical decision support rules.
Calculate and Transmit CMS Quality Measures	**Interim Final Rule Text:** (1) Display. Calculate and electronically display quality measures as specified by CMS or states. (2) Submission. Enable a user to electronically submit calculated quality measures in accordance with the standard and implementation specifications specified in §170.205(e).	**Final Rule Text: §170.304(j)** **(1) Calculate**. (i) Electronically calculate all of the core clinical measures specified by CMS for eligible professionals. (ii) Electronically calculate, at a minimum, three clinical quality measures specified by CMS for eligible professionals, in addition to those clinical quality measures specified in paragraph (1)(i). **(2) Submission.** Enable a user to electronically submit calculated clinical quality measures in accordance with the standard and implementation specifications specified in §170.205(f). **§170.306(i) (1) Calculate.** Electronically calculate all of the clinical quality measures specified by CMS for eligible hospitals and critical access hospitals. (2) Submission. Enable a user to electronically submit calculated clinical quality measures in accordance with the standard and implementation specifications specified in §170.205(f).
Electronic Copy of Health Information	**Interim Final Rule Text:** Enable a user to create an electronic copy of a patient's clinical information, including, at a minimum, diagnostic test results, problem list, medication list, medication allergy list, immunizations, and procedures in: (1) Human readable format; and (2) On electronic media or through some other electronic means in accordance with: (i) One of the standards specified in §170.205(a)(1); (ii) The standard specified in §170.205(a)(2)(i)(A), or, at a minimum, the version of the standard specified in §170.205(a)(2)(i)(B); (iii) One of the standards specified in §170.205(a)(2)(ii); (iv) At a minimum, the version of the standard specified in §170.205(a)(2)(iii); and (v) The standard specified in §170.205(a)(2)(iv).	**Final Rule Text: §170.304(f)** Electronic copy of health information. Enable a user to create an electronic copy of a patient's clinical information, including, at a minimum, diagnostic test results, problem list, medication list, and medication allergy list in: (1) Human readable format; and (2) On electronic media or through some other electronic means in accordance with: (i) The standard (and applicable implementation specifications) specified in §170.205(a)(1) or §170.205(a)(2); and (ii) For the following data elements the applicable standard must be used: **(A) Problems**. The standard specified in §170.207(a)(1) or, at a minimum, the version of the standard specified in §170.207(a)(2); **(B) Laboratory test results**. At a minimum, the version of the standard specified in §170.207(c); and **(C) Medications**. The standard specified in §170.207(d).
Electronic Copy of Discharge Instructions	**Interim Final Rule Text:** Enable a user to create an electronic copy of the discharge instructions and procedures for a patient, in human readable format, at the time of discharge on electronic media or through some other electronic means.	**Final Rule Text: §170.306(e)** Electronic copy of discharge instructions. Enable a user to create an electronic copy of the discharge instructions for a patient, in human readable format, at the time of discharge on electronic media or through some other electronic means.
Clinical Summaries for each office visit	**Interim Final Rule Text:** (1) Provision. Enable a user to provide clinical summaries to patients for each office visit that include, at a minimum, diagnostic test results, problem list, medication list, medication allergy list, immunizations and procedures. (2) Provided electronically. If the clinical summary is provided electronically it must be: (i) Provided in human readable format; and (ii) On electronic media or through some other electronic means in accordance with: (A) One of the standards specified in §170.205(a)(1); (B) The standard specified in §170.205(a)(2)(i)(A), or, at a minimum, the version of the standard specified in §170.205(a)(2)(i)(B); (C) One of the standards specified in §170.205(a)(2)(ii); (D) At a minimum, the version of the standard specified in §170.205(a)(2)(iii); and (E) The standard specified in §170.205(a)(2)(iv).	**Final Rule Text: §170.304(h)** Clinical summaries. Enable a user to provide clinical summaries to patients for each office visit that include, at a minimum, diagnostic test results, problem list, medication list, and medication allergy list. If the clinical summary is provided electronically it must be: (1) Provided in human readable format; and (2) Provided on electronic media or through some other electronic means in accordance with: (i) The standard (and applicable implementation specifications) specified in §170.205(a)(1) or §170.205(a)(2); and (ii) For the following data elements the applicable standard must be used: **(A) Problems.** The standard specified in §170.207(a)(1) or, at a minimum, the version of the standard specified in §170.207(a)(2); **(B) Laboratory test results**. At a minimum, the version of the standard specified in §170.207(c); and **(C) Medications**. The standard specified in §170.207(d).
Exchange Key Clinical Information	**Interim Final Rule Text:** Enable a user to create an electronic copy of a patient's clinical information, including, at a minimum, diagnostic test results, problem list, medication list, medication allergy list, immunizations, procedures, and discharge summary in: (1) Human readable format; and (2) On electronic media or through some other electronic means in accordance with: (i) One of the standards specified in §170.205(a)(1); (ii) The standard specified in §170.205(a)(2)(i)(A), or, at a minimum, the version of the standard specified in §170.205(a)(2)(i)(B); (iii) One of the standards specified in §170.205(a)(2)(ii); (iv) At a minimum, the version of the standard specified in §170.205(a)(2)(iii); and (v) The standard specified in §170.205(a)(2)(iv).	**Final Rule Text: §170.306(d)** (1) Enable a user to create an electronic copy of a patient's clinical information, including, at a minimum, diagnostic test results, problem list, medication list, medication allergy list, and procedures: (i) In human readable format; and (ii) On electronic media or through some other electronic means in accordance with: (A) The standard (and applicable implementation specifications) specified in §170.205(a)(1) or §170.205(a)(2); and (B) For the following data elements the applicable standard must be used: **(1) Problems.** The standard specified in §170.207(a)(1) or, at a minimum, the version of the standard specified in §170.207(a)(2); **(2) Procedures**. The standard specified in §170.207(b)(1) or §170.207(b)(2); **(3) Laboratory test results**. At a minimum, the version of the standard specified in §170.207(c); and **(4) Medications.** The standard specified in §170.207(d). (2) Enable a user to create an electronic copy of a patient's discharge summary in human readable format and on electronic media or through some other electronic means.
Privacy / Security	**Interim Final Rule Text:** (1) General. Encrypt and decrypt electronic health information according to user-defined preferences in accordance with the standard specified in §170.210(a)(1). (2) Exchange. Encrypt and decrypt electronic health information when exchanged in accordance with the standard specified in §170.210(a)(2).	**Final Rule Text: §170.302(u)** General encryption. Encrypt and decrypt electronic health information in accordance with the standard specified in §170.210(a)(1), unless the Secretary determines that the use of such algorithm would pose a significant security risk for Certified EHR Technology. §170.302(v). Encryption when exchanging electronic health information. Encrypt and decrypt electronic health information when exchanged in accordance with the standard specified in §170.210(a)(2).

Standards (Core Set)

Vocabulary: (1) Logical Observation Identifiers Names and Codes (LOINC®) version 2.27; (2) Any source vocabulary that is included in RxNorm (First Databank, Micromedex, MediSpan, Gold Standard Alchemy, and Multum); (3) Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) July 2009; (4) ICD-9; (5) CPT-4 and HCPCS; (6) HL7 Standard Code Set CVX - Vaccines Administered, July 30, 2009 version; (7) Ethnicity and Race The Office of Management and Budget Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity, Statistical Policy Directive No. 15, October 30, 1997

Transmission and Implementation Specifications: (8) HL7 2.3; (9) HL7 2.5.1; (10) NCPDP 8.3; (11) NCPDP 10.8 Implementation Guide; (12) HL7 2.5.1 Implementation Guide for Immunization Messaging Release 1.0; (13) Implementation Guide for Immunization Data Transactions using Version 2.3.1 of the HL7 Standard Protocol Implementation Guide; (14) HL7 Version 2.5.1 Implementation Guide: Electronic Laboratory Reporting to Public Health, Release 1; (15) Implementation Specification Public Health Information Network HL7 2.5 Message

Content: (16) CCR - Continuity of Care Record; (17) CCD - Continuity of Care Document (HL7 CDA R2); (18) HITSP 32; (19) Implementation specifications - Physician Quality Reporting Initiative Measure Specifications Manual for Claims and Registry; (20) The CMS Physician Quality Reporting Initiative (PQRI) 2009 Registry XML Specification; (21) NOTATION ON CONTENT - Problems, Medication List and Lab Results Required

Meaningful Use Category	LOINC	RxNorm	SNOMED CT	ICD-9	CPT-4 and HCPCS	CVX	Ethnicity and Race	HL7 2.3	HL7 2.5.1	NCPDP 8.3	NCPDP 10.8	HL7 2.5.1 IG Immunization	IG Immunization 2.3.1	HL7 2.5.1 ELR	PHIN HL7 2.5	CCR	CCD	HITSP 32	PQRI Measure Specifications	CMS PQRI 2009 Registry XML	Notation on Content
CPOE - Computerized provider order entry		●																			
Implement drug-drug and drug allergy interaction checks																					
ePrescribing		●								●	●										
Demographics							●														
Problem List			● (green)	● (green)																	
Medication List		●																			
Medication Allergy List																					
Vital Signs																					
Smoking Status																					
Clinical Decision Support																					
Calculate and Transmit CMS Quality Measures																			●	●	
Electronic Copy of Health Information	●	●	● (green)	● (green)	●											● (green)	● (green)	● (green)			●
Electronic Copy of Discharge Instructions																					
Clinical Summaries for each office visit	●	●	● (green)	● (green)												● (green)	● (green)	● (green)			●
Exchange Key Clinical Information	●	●	● (green)	● (green)												● (green)	● (green)	● (green)			●

Privacy / Security standards: *For complete Privacy / Security Standards information - Refer to the Department of Health and Human Services, Office of the Secretary 45 CFR Part 170 Health Information Technology: Initial Set of Standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology Final Rule published in the Federal Register by the Office of the National Coordinator for Health Information Technology*
Encryption and decryption of electronic health information – In general - Any encryption algorithm identified by the National Institute of Standards and Technology (NIST) as an approved security function in Annex A of the Federal Information Processing Standards (FIPS) Publication 140-2 – For data exchange - Any encrypted and integrity protected link
Record actions related to electronic health information - The date, time, patient identification, and user identification must be recorded when electronic health information is created, modified, accessed, or deleted; and an indication of which action(s) occurred and by whom must also be recorded
Verification that electronic health information has not been altered in transit - Standard - A hashing algorithm with a security strength equal to or greater than SHA-1 (Secure Hash Algorithm (SHA-1) as specified by the National Institute of Standards and Technology (NIST) in FIPS PUB 180-3 (October, 2008)) must be used to verify that electronic health information has not been altered.
Record treatment, payment, and health care operations disclosures - The date, time, patient identification, user identification, and a description of the disclosure must be recorded for disclosures for treatment, payment, and health care operations, as these terms are defined at 45 CFR 164.501

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
Improving quality, safety, efficiency, and reducing health disparities	Implement drug-formulary checks	●	●	Enabled	↑				✓
	Advance Directives *[Hospital only]*		●	50%	↑			❖	
	Lab Results into EHR	●	●	40%	↓	■		❖	
	Patient List	●	●	One List	↔				✓
	Patient Reminders *[EP only]*	●		20%	↓			❖	
Engage patients and families in their health care	Timely Electronic Access to Health Information *[EP only]*	●		10%	↓		♦		
	Patient Specific Education	●	●	10%	↑	■	♦		
Improve care coordination	Medication Reconciliation	●	●	50%	↓	■		❖	
	Summary of Care	●	●	50%	↓			❖	
Improve population and public health	Immunization Registries	●	●	One test	↔				✓
	Lab Results to Public Health Agencies *[Hospital only]*		●	One test	↔				✓
	Syndromic Surveillance	●	●	One test	↔				✓

Stage 1 Objectives and Stage 1 Measures (Menu Set)

Meaningful Use Category	Eligible Professionals	Hospitals	Stage 1 Measures
Implement drug-formulary checks	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		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	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	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	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
Timely Electronic Access to Health Information	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	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
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 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	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
Immunization Registries	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		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	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 (Menu Set)

Meaningful Use Category	NRPM Certification Language	FINAL RULE - Certification Language
Implement drug-formulary checks	**Interim Final Rule Text:** (2)Formulary checks. Enable a user to electronically check if drugs are in a formulary or preferred drug list in accordance with the standard specified in §170.205(b).	**Final Rule Text: §170.302**(b) Drug-formulary checks. Enable a user to electronically check if drugs are in a formulary or preferred drug list.
Advance Directives	Not in the NPRM other than as a part of a Continuity of Care Document (CCD)	**Final Rule Text: §170.306(h)** Advance directives. Enable a user to electronically record whether a patient has an advance directive.
Lab Results into EHR	**Interim Final Rule Text:** (1) Receive results. Electronically receive clinical laboratory test results in a structured format and display such results in human readable format. (2) Display codes in readable format. Electronically display in human readable format any clinical laboratory tests that have been received with LOINC® codes. (3) Display test report information. Electronically display all the information for a test report specified at 42 CFR 493.1291(c)(1) through (7). (4) Update. Enable a user to electronically update a patient's record based upon received laboratory test results	**Final Rule Text: §170.302(h)** (1) Unchanged (2) Display test report information. Electronically display all the information for a test report specified at 42 CFR 493.1291(c)(1) through (7). (3) Incorporate results. Electronically attribute, associate, or link a laboratory test result to a laboratory order or patient record.
Patient List	**Interim Final Rule Text:** Generate patient lists. Enable a user to electronically select, sort, retrieve, and output a list of patients and patients' clinical information, based on user-defined demographic data, medication list, and specific conditions.	**Final Rule Text: §170.302(i)** Generate patient lists. Enable a user to electronically select, sort, retrieve, and generate lists of patients according to, at a minimum, the data elements included in: **(1) Problem list; (2) Medication list; (3) Demographics; and (4) Laboratory test results.**
Patient Reminders	**Interim Final Rule Text:** Electronically generate, upon request, a patient reminder list for preventive or follow-up care according to patient preferences based on demographic data, specific conditions, and/or medication list.	**Final Rule Text: §170.304(d)** Patient reminders. Enable a user to electronically generate a patient reminder list for preventive or follow-up care according to patient preferences based on, at a minimum, the data elements included in: **(1) Problem list; (2) Medication list; (3) Medication allergy list; (4) Demographics; and (5) Laboratory test results.**
Timely Electronic Access to Health Information	**Interim Final Rule Text:** Enable a user to provide patients with online access to their clinical information, including, at a minimum, lab test results, problem list, medication list, medication allergy list, immunizations, and procedures.	**Final Rule Text: §170.304(g)** Timely access. Enable a user to provide patients with online access to their clinical information, including, at a minimum, lab test results, problem list, medication list, and medication allergy list.
Patient Specific Education	Not in the NPRM	**Final Rule Text: §170.302(m)** Patient-specific education resources. Enable a user to electronically identify and provide patient-specific education resources according to, at a minimum, the data elements included in the patient's: problem list; medication list; and laboratory test results; as well as provide such resources to the patient.
Medication Reconciliation	**Interim Final Rule Text:** Medication reconciliation. Electronically complete medication reconciliation of two or more medication lists by comparing and merging into a single medication list that can be electronically displayed in real-time.	**Final Rule Text:** §170.302(j) Medication reconciliation. Enable a user to electronically compare two or more medication lists.
Summary of Care	**Interim Final Rule Text:** (1) Electronically receive and display. Electronically receive a patient's summary record, from other providers and organizations including, at a minimum, diagnostic tests results, problem list, medication list, medication allergy list, immunizations, and procedures in accordance with §170.205(a) and upon receipt of a patient summary record formatted in an alternate standard specified in §170.205(a)(1), display it in human readable format. (2) Electronically transmit. Enable a user to electronically transmit a patient summary record to other providers and organizations including, at a minimum, diagnostic test results, problem list, medication list, medication allergy list, immunizations, and procedures in accordance with: (i)One of the standards specified in §170.205(a)(1); (ii)The standard specified in §170.205(a)(2)(i)(A), or, at a minimum, the version of the standard specified in §170.205(a)(2)(i)(B); (iii)One of the standards specified in §170.205(a)(2)(ii); (iv)At a minimum, the version of the standard specified in §170.205(a)(2)(iii); and (v)The standard specified in §170.205(a)(2)(iv).	**Final Rule Text: §170.304(i)** (1) Electronically receive and display. Electronically receive and display a patient's summary record, from other providers and organizations including, at a minimum, diagnostic tests results, problem list, medication list, and medication allergy list in accordance with the standard (and applicable implementation specifications) specified in §170.205(a)(1) or §170.205(a)(2). Upon receipt of a patient summary record formatted according to the alternative standard, display it in human readable format. (2) Electronically transmit. Enable a user to electronically transmit a patient summary record to other providers and organizations including, at a minimum, diagnostic test results, problem list, medication list, and medication allergy list in accordance with: (i) The standard (and applicable implementation specifications) specified in §170.205(a)(1) or §170.205(a)(2); and (ii) For the following data elements the applicable standard must be used: **(A) Problems.** The standard specified in §170.207(a)(1) or, at a minimum, the version of the standard specified in §170.207(a)(2); **(B) Laboratory test results**. At a minimum, the version of the standard specified in §170.207(c); and **(C) Medications**. The standard specified in §170.207(d).
Immunization Registries	**Interim Final Rule Text:** Submission to immunization registries. Electronically record, retrieve, and transmit immunization information to immunization registries in accordance with: (1) One of the standards specified in §170.205(h)(1) and, at a minimum, the version of the standard specified in §170.205(h)(2); or (2) The applicable state-designated standard format.	**Final Rule Text: §170.302(k)** Submission to immunization registries. Electronically record, modify, retrieve, and submit immunization information in accordance with: (1) The standard (and applicable implementation specifications) specified in §170.205(e)(1) or §170.205(e)(2); and (2) At a minimum, the version of the standard specified in §170.207(e).
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).

Standards (Menu Set)

Meaningful Use Category	LOINC	RxNorm	SNOMED CT	ICD-9	CPT-4 and HCPCS	CVX	Ethnicity and Race	HL7 2.3	HL7 2.5.1	NCPDP 8.3	NCPDP 10.8	HL7 2.5.1 IG Immunization	IG Immunization 2.3.1	HL7 2.5.1 ELR	PHIN HL7 2.5	CCR	CCD	HITSP 32	PQRI Measure Specifications	CMS PQRI 2009 Registry XML	Notation on Content
Implement drug-formulary checks																					
Advance Directives																					
Lab Results into EHR	● if LOINC sent from the lab																				
Patient List																					●
Patient Reminders																					●
Timely Electronic Access to Health Information																					●
Patient Specific Education																					
Medication Reconciliation																					
Summary of Care	●	●														● (green)	● (green)	● (green)			●
Immunization Registries						●		● (green)	● (green)			● (green)	● (green)								
Lab Results to Public Health Agencies	●								●					●							
Syndromic Surveillance								● (green)	● (green)						●						

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"