

Meaningful Use of Electronic Health Records (EHR)

A Summary of CMS's Final Rule on Meaningful Use

This document provides a summary of the 'meaningful use' objectives, as defined by CMS, for physicians seeking to receive Medicare or Medicaid incentives related to their electronic health record (EHR). These rules, which are now final, define what a physician must do to be considered 'meaningful users' in 2011 and 2012, and thus qualify for incentive payments.

Reimbursement Eligibility

There are three requirements that must be met to qualify for incentive payments. First, you must be an Eligible Professional. AMA has defined a set of qualification guidelines for both *Medicare* and *Medicaid*. Second, you must adopt EHR software that is certified to the 2011 standards set forth by the ONC. And finally, you must demonstrate Meaningful Use. The objective, measures, and exclusions have been finalized by CMS and can be found on page two of this document.

CMS's Healthcare Goals and Meaningful Use

The MU objectives, as defined by CMS and the basis for eligible professionals (EP) to receive HITECH incentive payments, are based on five stated goals.

1. To improve the quality, safety, and efficiency of care while reducing disparities
2. To engage patients and families in their care
3. To promote public and population health
4. To improve care coordination
5. To promote the privacy and security of EHRs

The final rules for stage one of meaningful use, released July 2010, are intended to get all providers to begin utilizing the most basic functions of the EHR. HITECH's goal is not EHR adoption alone but "meaningful use" -- that is, their use by providers to achieve significant improvements in care. Because of this, the legislation ties payments specifically to the achievement of advances in healthcare processes and outcomes.

MU stage one includes a core set and menu set of objectives that providers must report on. See Appendix A for CMS's Final Rule on Meaningful Use for Eligible Professionals, Including objectives, measures, exceptions, and reporting requirements, for the core and menu set.

• **Core Set:** These 15 objectives are required to demonstrate MU and constitute an essential starting point for meaningful use of EHRs. These include tasks essential to creating any medical record, including the entry of basic data: patients' vital signs and demographics, active medications and allergies, up-to-date problem lists of current and active diagnoses, and smoking status.

Other Core objectives include several features that begin to realize the true potential of EHRs to improve the safety, quality, efficiency of care -- and avoid preventable errors: clinical decision support tools, using records to enter clinical orders and medication prescriptions, and providing patients with electronic versions of their health information.

• **Menu Set:** Of these additional 10 objectives, physicians must choose at least 5 that they meet during the 2011 and 2012 time frame. These objectives provide physicians latitude to pick their own path toward full EHR implementation and MU. For example, the Menu Set includes: drug-formulary checks, incorporating laboratory results into EHRs, providing reminders to patients for needed care, identifying and providing patient-specific health education resources, and employing EHRs to support the patient's transitions between care settings or personnel.

Reporting and Payment Periods

To encourage physicians to implement and meaningfully use EHR's, the government has decided to reward implementation and meaningful use with financial incentives of anywhere between \$44,000- 63,750 per physician.

Medicare: Payments will begin in 2011 and continue throughout 2016. Payments are based on meaningful use reporting, which is on an annual schedule beginning with 90 days of reporting in 2011 and entire calendar

year reporting in all subsequent years. As the chart illustrates below, no payments will be made after 2016 so the sooner EP's begin meaningfully using EHRs, the more incentive money they will receive.

Year that Medicare EP Qualifies to Receive First Payment

	2011	2012	2013	2014	2015 and later	Non Adoption Penalty
2011	\$18,000					
2012	\$12,000	\$18,000				
2013	\$8,000	\$12,000	\$15,000			
2014	\$4,000	\$8,000	\$12,000	\$12,000		
2015	\$2,000	\$4,000	\$8,000	\$8,000	\$0	1%
2016		\$2,000	\$4,000	\$4,000	\$0	2%
2017 and later						3-5%
TOTAL	\$44,000	\$44,000	\$39,000	\$24,000	\$0	

Medicaid: Those who qualify under the Medicaid program will receive a larger total amount paid out over a six year period. EP's may qualify for the first year payment of \$21,250 by meeting the AIU requirement which is to Adopt, Install, or Upgrade a certified EHR. Meaningful Use must be demonstrated in second and subsequent years to qualify for annual payments of \$8,500.

Year that Medicaid EP Qualifies to Receive First Payment

	2011	2012	2013	2014	2015	2016
2011	\$21,250					
2012	\$8,500	\$21,250				
2013	\$8,500	\$8,500	\$21,250			
2014	\$8,500	\$8,500	\$8,500	\$21,250		
2015	\$8,500	\$8,500	\$8,500	\$8,500	\$21,250	
2016	\$8,500	\$8,500	\$8,500	\$8,500	\$8,500	\$21,250
2017		\$8,500	\$8,500	\$8,500	\$8,500	\$8,500
2018			\$8,500	\$8,500	\$8,500	\$8,500
2019				\$8,500	\$8,500	\$8,500
2020					\$8,500	\$8,500
2021						\$8,500
TOTAL	\$63,750	\$63,750	\$63,750	\$63,750	\$63,750	\$63,750

Clinical Quality Measures

In addition to reporting on core and menu set objectives, providers must also report on clinical quality measures. CMS¹ defines clinical quality measures as "measures of processes, experience, and/or outcomes of patient care, observations or treatment that relate to one or more of the Institute of Medicine domains of health care quality (e.g., effective, safe, efficient, patient-centered, equitable and timely)."

Providers must report on clinical quality measures to demonstrate meaningful use. Using an attestation methodology, EPs must submit information on three core measures and three additional measures chosen by the provider. See Appendix B for a list of the core and alternate core measures. See Appendix C for a list of the alternate measures that providers may choose from.

There will be no reporting penalties in Stage 1 as long as the EP has adopted a certified EHR, the EHR calculates, and the EP submits the required clinical quality information. In future stages, reporting timeframes are expected to be aligned across all CMS programs. A goal has also been set to integrate the EHR incentive program and the PQRI by January 1, 2012.

Meaningful Use Objectives: Core Set for Eligible Professionals				
	Objective	Measure	Exclusion	Reporting Method*
1	Record patient demographics (sex, race, ethnicity, date of birth, and preferred language)	More than 50% of patients' demographic data recorded as structured data	None	3
2	Record vital signs and chart changes (height, weight, blood pressure, body-mass index, growth charts for children)	More than 50% of patients 2 years of age or older have height, weight, and blood pressure recorded as structured data	Any EP who either see no patients 2 years or older, or who believes that all three vital signs of height, weight, and blood pressure of their patients have no relevance to their scope of practice during the EHR reporting period qualifies for an exclusion from this objective/measure	1
3	Maintain up-to-date problem list of current and active diagnoses	More than 80% of patients have at least one entry recorded as structured data	None	3
4	Maintain active medication list	More than 80% of patients have at least one entry recorded as structured data	None	3
5	Maintain active medication allergy list	More than 80% of patients have at least one entry recorded as structured data	None	3
6	Record smoking status for patients 13 years of age or older	More than 50% of patients 13 years of age or older have smoking status recorded as structured data	Any EP who sees no patients 13 years or older during the EHR reporting period qualifies for an exclusion from this objective/measure	1
7	For individual professionals, provide patients with clinical summaries for each office visit	Clinical summaries provided to patients for more than 50% of all office visits within 3 business days; more than 50% of all patients who are discharged from the inpatient department or emergency department of an eligible hospital or critical access hospital and who request an electronic copy of their discharge instructions are provided with it	Any EP who has no office visits during the EHR reporting period qualifies for an exclusion from this objective/measure	1
8	On request, provide patients with an electronic copy of their health information (including diagnostic test results, problem list, medication lists, and medication allergies)	More than 50% of requesting patients receive electronic copy within 3 business days	Any EP who sees no patients 13 years or older during the EHR reporting period qualifies for an exclusion from this objective/measure	1
9	Generate and transmit permissible prescriptions electronically	More than 40% are transmitted electronically using certified EHR technology	Any EP who writes fewer than 100 prescriptions during the EHR reporting period qualifies for an exclusion from this objective/measure	1
10	Computer provider order entry (CPOE) for medication orders	More than 30% of patients with at least one medication in their medication list have at least one medication ordered through CPOE	Any EP who writes fewer than 100 prescriptions during the EHR reporting period qualifies for an exclusion from this objective/measure	1
11	Implement drug–drug and drug–allergy interaction checks	Functionality is enabled for these checks for the entire reporting period	None	2
12	Implement capability to electronically exchange key clinical information among providers and patient-authorized entities	Perform at least one test of EHR's capacity to electronically exchange information	None	2
13	Implement one clinical decision support rule and ability to track compliance with the rule	One clinical decision support rule implemented	None	2
14	Implement systems to protect privacy and security of patient data in the EHR	Conduct or review a security risk analysis, implement security updates as necessary, and correct identified security deficiencies	None	2
15	Report clinical quality measures to CMS or states	For 2011, provide aggregate numerator and denominator through attestation; for 2012, electronically submit measures	None	3

* Reporting Methods:

1. Through the EHR. COunt is limited to information for practices whose records are maintained in the certified EHR
2. Attestation
3. EHR must have ability to tabulate patient's records stored in the EHR, however, if thresholds are not met through those patient records stored in the EHR, physician would need to manually count paper records in order to meet the threshold.

Meaningful Use Objectives: Menu Set for Eligible Professionals				
	Objective	Measure	Exclusion	Reporting Method*
1	Implement drug formulary checks	Drug formulary check system is implemented and has access to at least one internal or external drug formulary for the entire reporting period	None	2
2	Incorporate clinical laboratory test results into EHRs as structured data	More than 40% of clinical laboratory test results whose results are in positive/negative or numerical format are incorporated into EHRs as structured data	An EP who orders no lab tests whose results are either in a positive/negative or numeric format during the EHR reporting period qualifies for an exclusion from this objective/measure	1
3	Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research, or outreach	Generate at least one listing of patients with a specific condition	None	2
4	Use certified EHR technology to identify patient-specific education resources and provide those to the patient as appropriate	More than 10% of patients are provided patient-specific education resources	None	3
5	Perform medication reconciliation between care settings	Medication reconciliation is performed for more than 50% of transitions of care	An EP who was not the recipient of any transitions of care during the EHR reporting period qualifies for an exclusion from this objective/measure	1
6	Provide summary of care record for patients referred or transitioned to another provider or setting	Summary of care record is provided for more than 50% of patient transitions or referrals	An EP who neither transfers a patient to another setting nor refers a patient to another provider during the EHR reporting period qualifies for an exclusion from this objective/measure	1
7	Submit electronic immunization data to immunization registries or immunization information systems	Perform at least one test of data submission and follow-up submission (where registries can accept electronic submissions)	An EP who administers no immunizations during the EHR reporting period or where no immunization registry has the capacity to receive the information electronically qualifies for an exclusion from this objective/measure	2
8	Submit electronic syndromic surveillance data to public health agencies	Perform at least one test of data submission and follow-up submission (where public health agencies can accept electronic data)	An EP who does not collect any reportable syndromic information on their patients during the EHR reporting period or does not submit such information to any public health agency that has the capacity to receive the information electronically qualifies for an exclusion from this objective/measure	2
9	Send reminders to patients (per patient preference) for preventive and follow-up care	More than 20% of patients 65 years of age or older or 5 years of age or younger are sent appropriate reminders	An EP who has no patients 65 years old or older or 5 years old or younger with records maintained using certified EHR technology qualifies for an exclusion from this objective/measure	1
10	Provide patients with timely electronic access to their health information (including laboratory results, problem list, medication lists, medication allergies)	More than 10% of patients are provided electronic access to information within 4 days of its being updated in the EHR	An EP who has no patients 65 years old or older or 5 years old or younger with records maintained using certified EHR technology qualifies for an exclusion from this objective/measure	3

* Reporting Methods:

1. Through the EHR. COunt is limited to information for practices whose records are maintained in the certified EHR
2. Attestation
3. EHR must have ability to tabulate patient's records stored in the EHR, however, if thresholds are not met through those patient records stored in the EHR, physician would need to manually count paper records in order to meet the threshold.

NQF Measure Number and PQRI Implementation Number	Clinical Quality Measure Title
<i>Core Measures</i>	
NQF 0013	Hypertension: Blood Pressure Measurement
NQF 0028	Preventive Care and Screening Measure Pair: a) Tobacco Use Assessment b) Tobacco Cessation Intervention
NQF 0421 / PQRI 128	Adult Weight Screening and Follow-up
<i>Alternative Core Measures</i>	
NQF 0024	Weight Assessment and Counseling for Children and Adolescents
NQF 0041 / PQRI 110	Preventive Care and Screening: Influenza Immunization for Patients ≥ 50 Years Old
NQF 0038	Childhood Immunization Status

Measure Number	Clinical Quality Measure Title	Description
PQRI 1 NQF 0059	Diabetes Mellitus: Hemoglobin A1c Poor Control in Diabetes Mellitus	Percentage of patients aged 18 through 75 years with diabetes mellitus who had most recent hemoglobin A1c greater than 9.0%
PQRI 2 NQF 0064	Diabetes Mellitus: Low Density Lipoprotein (LDL-C) Control in Diabetes Mellitus	Percentage of patients aged 18 through 75 years with diabetes mellitus who had most recent LDL-C level in control (less than 100 mg/dl)
PQRI 3 NQF 0061	Diabetes Mellitus: High Blood Pressure Control in Diabetes Mellitus	Percentage of patients aged 18 through 75 years with diabetes mellitus who had most recent blood pressure in control (less than 140/80 mmHg)
PQRI 5 NQF 0081	Heart Failure: Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)	Percentage of patients aged 18 years and older with a diagnosis of heart failure and LVSD who were prescribed ACE inhibitor or ARB therapy
PQRI 7 NQF 0070	Coronary Artery Disease (CAD): Beta-Blocker Therapy for CAD Patients with Prior Myocardial Infarction (MI)	Percentage of patients aged 18 years and older with a diagnosis of CAD and prior MI who were prescribed beta-blocker therapy
PQRI 110 NQF 0041	Preventive Care and Screening: Influenza Immunization for Patients = 50 Years Old	Percentage of patients aged 50 years and older who received an influenza immunization during the flu season (September through February)
PQRI 111 NQF 0043	Preventive Care and Screening: Pneumonia Vaccination for Patients 65 Years and Older	Percentage of patients aged 65 years and older who have ever received a pneumococcal vaccine
PQRI 112 NQF 0031	Preventive Care and Screening: Screening Mammography	Percentage of women aged 40 through 69 years who had a mammogram to screen for breast cancer within 24 months
PQRI 113 NQF 0034	Preventive Care and Screening: Colorectal Cancer Screening	Percentage of patients aged 50 through 80 years who received the appropriate colorectal cancer screening
PQRI 6 NQF 0067	Coronary Artery Disease (CAD): Oral Antiplatelet Therapy Prescribed for Patients with CAD	Percentage of patients aged 18 years and older with a diagnosis of CAD who were prescribed oral antiplatelet therapy
PQRI 8 NQF 0083	Heart Failure: Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)	Percentage of patients aged 18 years and older with a diagnosis of heart failure who also have LVSD and who were prescribed beta-blocker therapy
PQRI 9 NQF 0105	Major Depressive Disorder (MDD): Antidepressant Medication During Acute Phase for Patients with MDD	Percentage of patients aged 18 years and older diagnosed with new episode of MDD and documented as treated with antidepressant medication during the entire 84-day (12-week) acute treatment phase
PQRI 12 NQF 0086	Primary Open Angle Glaucoma (POAG): Optic Nerve Evaluation	Percentage of patients aged 18 years and older with a diagnosis of POAG who have an optic nerve head evaluation during one or more office visits within 12 months
PQRI 18 NQF 0088	Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy	Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed which included documentation of the level of severity of retinopathy and the presence or absence of macular edema during one or more office visits within 12 months
PQRI 19 NQF 0089	Diabetic Retinopathy: Communication with the Physician Managing On-going Diabetes Care	Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed with documented communication to the physician who manages the on-going care of the patient with diabetes mellitus regarding the findings of the macular or fundus exam at least once within 12 months
PQRI 53 NQF 0047	Asthma: Pharmacologic Therapy	Percentage of patients aged 5 through 40 years with a diagnosis of mild, moderate, or severe persistent asthma who were prescribed either the preferred long-term control medication (inhaled corticosteroid) or an acceptable alternative treatment
PQRI 64 NQF 0001	Asthma Assessment	Percentage of patients aged 5 through 40 years with a diagnosis of asthma and who have been seen for at least 2 office visits, who were evaluated during at least one office visit within 12 months for the frequency (numeric) of daytime and nocturnal asthma symptoms.
PQRI 66 NQF 0002	Testing for Children with Pharyngitis	Percentage of children aged 2 through 18 years with a diagnosis of pharyngitis, who were prescribed an antibiotic and who received a group A streptococcus (strep) test for the episode
PQRI 71 NQF 0387	Breast Cancer: Hormonal Therapy for Stage IC-IIIIC Estrogen Receptor/Progesterone Receptor (ER/PR) Positive Breast Cancer	Percentage of female patients aged 18 years and older with Stage IC through IIIIC, ER or PR positive breast cancer who were prescribed tamoxifen or aromatase inhibitor (AI) during the 12-month reporting period
PQRI 72 NQF 0385	Colon Cancer: Chemotherapy for Stage III Colon Cancer Patients	Percentage of patients aged 18 years and older with Stage IIIA through IIIIC colon cancer who are referred for adjuvant, prescribed adjuvant chemotherapy, or have previously received adjuvant chemotherapy within the 12-month reporting period
PQRI 102 NQF 0389	Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low-Risk Prostate Cancer Patients	Percentage of patients, regardless of age, with a diagnosis of prostate cancer at low risk of recurrence receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy who did not have a bone scan performed at any time since diagnosis of prostate cancer
PQRI 115 NQF 0027	Preventive Care and Screening: Advising Smokers to Quit	Percentage of patients aged 18 years and older and are smokers who received advice to quit smoking

Measure Number	Clinical Quality Measure Title	Description
PQRI 117 NQF 00	Mellitus: Dilated Eye Exam in Diabetic Patient	Percentage of patients aged 18 through 75 years with a diagnosis of diabetes mellitus who had a dilated eye exam
PQRI 119 NQF 0062	Diabetes Mellitus: Urine Screening for Microalbumin or Medical Attention for Nephropathy in Diabetic Patients	Percentage of patients aged 18 through 75 years with diabetes mellitus who received urine protein screening or medical attention for nephropathy during at least one office visit within 12 months
PQRI 128 NQF 0421	Adult Weight Screening and Follow-Up	Percentage of patients aged 18 years and older with a calculated BMI in the past six months or during the current visit documented in the medical record AND if the most recent BMI is outside parameters, a follow-up plan is documented.
PQRI 163 NQF 0056	Diabetes Mellitus: Foot Exam	The percentage of patients aged 18 through 75 years with diabetes who had a foot examination
PQRI 197 NQF 0074	Coronary Artery Disease (CAD): Drug Therapy for Lowering LDL-Cholesterol	Percentage of patients aged 18 years and older with a diagnosis of CAD who were prescribed a lipid-lowering therapy (based on current ACC/AHA guidelines)
PQRI 200 NQF 0084	Heart Failure: Warfarin Therapy for Patients with Atrial Fibrillation	Percentage of all patients aged 18 and older with a diagnosis of heart failure and paroxysmal or chronic atrial fibrillation who were prescribed warfarin therapy
PQRI 201 NQF 0073	Ischemic Vascular Disease (IVD): Blood Pressure Management Control	Percentage of patients aged 18 years and older with Ischemic Vascular Disease (IVD) who had most recent blood pressure in control (less than 140/90 mmHg)
PQRI 204 NQF 0068	Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic	Percentage of patients aged 18 years and older with Ischemic Vascular Disease (IVD) with documented use of aspirin or other antithrombotic
NQF 0004	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment: (a) Initiation, (b) Engagement	Percentage of adults aged 18 and over diagnosed with AOD abuse or dependence and receiving a related service who initiate treatment Assessment of the degree to which members engage in treatment with two additional AOD treatments within 30 days after initiating treatment
NQF 0012	Prenatal Screening for Human Immunodeficiency Virus (HIV)	Percentage of patients who gave birth during a 12 month period who were screened for HIV infection during the first or second prenatal care visit
NQF 0013	Blood pressure measurement	Percentage of patient visits with blood pressure measurement recorded among all patient visits for patients aged > 18 years with diagnosed hypertension
NQF 0014	Prenatal Anti-D Immune Globulin	Percentage of D-negative, unsensitized patients who gave birth during a 12-month period who received anti-D immune globulin at 26-30 weeks gestation
NQF 0018	Controlling High Blood Pressure	Percentage of patients with last BP < 140/80 mm Hg
NQF 0024	Weight Assessment and Counseling for Children and Adolescents	Percentage of patients 2 -17 years of age who had an outpatient visit with a Primary Care Physician (PCP) or OB/GYN and who had evidence of BMI percentile documentation, counseling for nutrition and counseling for physical activity during the measurement year.
NQF 0028	Preventive Care and Screening Measure Pair: a. Tobacco Use Assessment, b. Tobacco Cessation Intervention	Percentage of patients aged 18 years and older who have been seen for at least 2 office visits who were queried about tobacco use one or more times within 24 months b. Percentage of patients aged 18 years and older identified as tobacco users within the past 24 months and have been seen for at least 2 office visits, who received cessation intervention.
NQF 0032	Cervical Cancer Screening	Percentage of women 21-64 years of age, who received one or more Pap tests to screen for cervical cancer
NQF 0033	Chlamydia screening in women	Percentage of eligible women who were identified as sexually active that had at least one test for chlamydia during the measurement year.
NQF 0036	Use of appropriate medications for asthma	Percentage of patients who were identified as having persistent asthma during the measurement year and the year prior to the measurement year and who were dispensed a prescription for either an inhaled corticosteroid or acceptable alternative medication during the measurement year.
NQF 0038	Childhood Immunization Status	Percentage of children 2 years of age who had four DtaP/DT, three IPV, one MMR, three H influenza type B, three hepatitis B, one chicken pox vaccine (VZV) and four pneumococcal conjugate vaccines by their second birthday. The measure calculates a rate for each vaccine and two separate combination rates.
NQF 0052	Low back pain: use of imaging studies	Percentage of patients with new low back pain who received an imaging study (plain x-ray, MRI, CT scan) conducted on the episode start date or in the 28 days following the episode start date.
NQF 0075	Ischemic Vascular Disease (IVD): Complete Lipid Panel and LDL Control	Percentage of patients 18 years of age and older who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous transluminal angioplasty (PTCA) from January 1-November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to the measurement year and who had a complete lipid profile performed during the measurement year and whose LDL-C<100 mg/dL.
NQF 0575	Diabetes: Hemoglobin A1c Control (<8.0%)	The percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had hemoglobin A1c <8.0%.