American College of Radiology
Summary: CMS Stage 2 EHR Incentive Program &
ONC 2014 Edition EHR Certification Criteria/Standards
September 4, 2012 Final Rules
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Background-in-Brief

The Medicare/Medicaid EHR Incentive Program was established by the American Recovery and Reinvestment Act of 2009 to promote the meaningful use of certified electronic health record (EHR) technology. In the months following the passage of ARRA, the U.S. Department of Health and Human Services (HHS) established relevant advisory committees and convened numerous public meetings to discuss potential options for EHR Incentive Program implementation.

In January 2010, a proposed rule was published for public comment by the Centers for Medicare and Medicaid Services (CMS) regarding the program participation requirements. Simultaneously, an interim final rule was published for comment by the HHS Office of the National Coordinator for Health Information Technology (ONC) regarding product certification requirements. After reviewing public comments and making significant changes, CMS and ONC promulgated final rules in July 2010.

Products began receiving certification from ONC-approved organizations in the second half of 2010 and the EHR Incentive Program began in January 2011. Meanwhile, stakeholders and the agencies continued to discuss, and plan for, the future of the program.

In March 2012, CMS and ONC published proposed rules for public comment regarding potential updates to the user and technology requirements. After reviewing public comments and making changes, the agencies published final rules (CMS final rule / ONC final rule) on September 4, 2012.

The following is a consolidated summary of CMS' and ONC's September 4, 2012 final rules as they relate to the American College of Radiology's physician members. This information is intended to be for educational purposes only, and is not a guidance or legal document. This summary does not contain all information that other stakeholders, such as technology developers and hospitals, would need to know. ACR will continue to update this document with additional information.

Fundamentals

The EHR Incentive Program is a voluntary "carrot-and-stick" CMS quality program that involves the meaningful use (MU) of certified EHR technology (CEHRT). There are separate versions of the program for Eligible Professionals (EPs) and Eligible Hospitals (EHs), with physicians—and, accordingly, this summary—engaged in the EP version of the program. Additionally, there are slightly different variations of the EP version of the program for Medicare and Medicaid.

Most of the American College of Radiology's professionally active physician members are eligible for the Medicare version of the EHR Incentive Program for EPs. To be ineligible, a physician would need to be considered "hospital-based," which is narrowly defined in a manner that few physicians would actually meet, regardless of whether or not they work in hospitals and hospital-owned facilities. While almost all radiologists are not technically "hospital-based" and are therefore eligible for the Medicare-specific variation of the program, only a few are likely to be eligible for the Medicaid-specific variation of the

program because of certain patient volume requirements.[1] Therefore, the following summary focuses exclusively on the Medicare-specific variation of the EP version of the EHR Incentive Program.

"Certified EHR technology" can be any HIT product, or combination of HIT products, that was certified by an appropriate entity as meeting all of ONC's requisite EHR certification criteria, standards, and implementation specifications. CEHRT does not have to be an actual EHR/EMR product in the traditional sense.

Fundamentally, "meaningful use" involves meeting a series of specific requirements set by CMS including a list of MU objectives that measure an EP's access to specific types of data and functionalities. None of the objectives require EPs to enter the data themselves. Beyond the various objectives, MU also requires the act of reporting certain clinical quality measures (CQMs) to CMS.

The previously mentioned MU objectives are specific to "Stages." All participants begin in Stage1 regardless of the calendar year in which they enter the program. Likewise, with one exception that will be explained later in this summary, all EPs remain in Stage 1 for two years before moving up to the Stage 2 objectives. For example, someone entering the program in 2014 will be in Stage 1 until 2016.

Conversely, the technology certification requirements are updated in versions, or "Editions," named for the year in which they become mandatory. Currently, there are 2011 Edition (from the ONC's July 2010 final rule) and 2014 Edition (from the ONC's September 2010 final rule) certification requirements. Developers can seek 2014 Edition certification for their products prior to CY 2014. Likewise, EPs can opt to meaningfully use products certified to the 2014 Edition certification criteria prior to CY 2014. Beginning in CY 2014, all participants must use 2014 Edition certified products regardless of the MU Stage they are in.

Similar to the technology certification requirements, the "reporting CQMs" component of MU is updated based on calendar year, not Stage. Currently, EPs are reporting the 2011 CQMs. In CY 2014, all EPs will report the 2014 CQMs using the requisite CQM reporting methodologies, regardless of whether they are complying with the Stage 1 or Stage 2 MU objectives.

Eligibility

CMS' September 2012 final rule did not change the eligibility requirements for the Medicare variation of the EP EHR Incentive Program. To participate, a physician cannot be "hospital-based." A physician is "hospital-based" if 90% or more of her/his covered professional services were furnished in inpatient and emergency room hospital settings as determined by Place of Service Codes on claims. CMS provides physicians with a "determination" of whether or not they are hospital-based during online registration for the program.

CMS' September 2012 final rule expanded eligibility to include previously determined "hospital-based" EPs who could demonstrate that they fund the acquisition, implementation, and maintenance of CEHRT and associated hardware independently from the hospital. This expansion was meant to reward those physicians who were previously determined to be "hospital-based," and therefore ineligible for the program, despite having technological independence from the hospitals in which they provide services.

Note that this expansion of eligibility does not impact EPs who are not technically "hospital-based;" therefore, radiology is not impacted by this new eligibility option. ACR includes this paragraph only

[1] ACR encourages members with high volumes of *Medicaid* supported patients to access CMS' introduction to the Medicaid program.

because of potential confusion that the ownership requirements for hospital-based EPs to become "nonhospital-based" extend to those already eligible for the program—that is not the case.

Reporting Periods
The term "EHR reporting period" describes the period of time during the calendar year in which the EP needs to meaningfully use CEHRT. In an EP's first year of Stage 1, the reporting period can be any consecutive 90 days within the CY. After the EP's first year of participation, the EHR reporting period is the full CY.

The September 2012 final rule slightly added to this scheme by allowing previous meaningful users to have a special 3-month EHR reporting period in CY 2014 to allow more time and flexibility for implementing 2014 Edition certified products. The special 3-month period in CY 2014 can be: 1/1 through 3/31, 4/1 through 6/30, 7/1 through 9/30, or 10/1 through 12/31.

EPs in their first year of participation in 2014 continue to be able to choose any consecutive 90-day period; however, those EPs should plan to attest before October 1, 2014 for reasons explained in the next section.

Penalty Avoidance Compliance Deadlines
CMS' September 2012 final rule established deadlines for avoiding the future payment adjustments (penalties) for a given year. The first "payment adjustment year" is 2015. Whether or not an EP is penalized in CY 2015 and each year thereafter depends on the EP's MU compliance 2 years before the payment adjustment year. For example, a meaningful user avoids penalties in 2015 by virtue of her/his MU compliance in 2013.

A first-time program participant can still avoid penalties in the calendar year before the payment adjustment year, with the additional limitation that the EP must complete the compliance and attestation process by October 1 of that year. For example, first-time participants in CY 2014 must begin their respective EHR reporting periods no later than July 1, 2014, and complete their attestations by October 1, 2014, in order to avoid the CY 2015 penalties. The window of time between October 1 and December 31 provides the agency with time to review.

Significant Hardship Exceptions
CMS established several "significant hardship exception" categories for EPs that meet specific requirements in order to temporarily avoid the payment adjustments for noncompliance.

- *Category I: Lacking broadband/infrastructure*
  An EP can apply by July 1 of the year prior to the payment adjustment year if during any 90-day period 2 years before the payment adjustment year, the EP was in an area without sufficient internet access and faced insurmountable barriers to gaining access.

- *Category II: Newly practicing EP*
  The EP has been practicing for less than 2 years.

- *Category III: Extreme and uncontrollable circumstances*
  - *(A)* During the year that is 2 years before the payment adjustment year, a previous meaningful user faced extreme and uncontrollable circumstances. EPs must apply by July 1 of the year before the payment adjustment year.
  - *(B)*During the calendar year preceding the payment adjustment year, the EP faced extreme and uncontrollable circumstances. EPs must apply by July 1 of the year before the payment adjustment year.

- *Category IV: No influence, no face-to-face/follow-up, or PECOS specialty*
  EPs can apply by July 1 of the year before the applicable payment adjustment year for (IV)(A) and (B):
    - *(A)* The EP who practices in multiple locations is unable to control the availability of CEHRT at one practice or a combination of practices where the practice(s) constitute more than 50% of their patient encounters.
    - *(B)* The EP can demonstrate difficulty in meeting MU on the basis of no face-to-face or telemedicine interaction with patients and lack of need for follow-up with patients.
    - *(C)* The EP has a primary specialty listed in the Provider Enrollment Chain and Ownership System (PECOS) as anesthesiology, radiology, or pathology 6 months prior to the payment adjustment year.

Regarding significant hardship exception category (IV)(C)… PECOS does not actually have a "radiology" specialty code. Instead, there are separate PECOS codes for "diagnostic radiology," "nuclear medicine," "interventional radiology," and "radiation oncology." CMS will need to address this complication via a correction or future guidance.

According to the regulations and additional clarification from CMS staff, EPs who meet the requirements of significant hardship exception category (IV)(C) may be automatically "deemed to qualify" for the exception without having to apply. However, CMS encourages radiologists, pathologists, and anesthesiologists to comply with the EHR Incentive Program instead of accepting the exception. ACR has requested additional information from CMS staff as to whether a direct action will be required to forgo exception (IV)(C), or if normal MU compliance and attestation is sufficient for this purpose.

ACR cautions the radiology community that CMS reserves the right to not continue exceptions for (IV)(C) for the full 5 years permitted by the statute. The explanation in the final rule indicates that the agency will regularly assess MU compliance levels and the overall state of health information exchange. CMS may make regulatory changes or develop additional guidance that would eliminate the need for this exception category in the future.

More importantly, EPs cannot be awarded significant hardship exceptions for more than 5 years total because of explicit statutory limitations. Making the hardship exceptions "permanent" would require new legislation to remove those inherent limitations on CMS' regulatory authority. Thus, barring an unforeseen change (i.e., future legislation), radiologists who remain noncompliant with MU are only temporarily safeguarded from the EHR Incentive Program penalties via significant hardship exception category (IV)(C) until either CMS discontinues it, or the beginning of CY 2020—whichever comes first.

Patients "Seen By" the EP
In 2011, CMS released guidance allowing an EP to define the concept of patients "seen by" the EP in any way as long as she/he included physical and telemedicine encounters and applied the definition consistently throughout the EHR reporting period. The concept of "patients seen by the EP" is relevant to several of the percentage-based objectives/measures in Stages 1 and 2. The September 2012 final rule includes the previous "seen by" language in its preamble without significant change.

"Office Visits"
In Stage 1, the term "office visit" is only applicable to one of the 25 MU objectives. In Stage 2, that term is used more widely in the numerators, denominators, and exclusions of several MU objectives.

CMS' September 2012 final rule includes additional clarity on what constitutes an "office visit." While CMS does not limit this term to evaluation and management (E&M) coded services the way that most people interpreted under the previous rule's definition, CMS does now indicate that EPs have the flexibility to shape their own definition of this term within certain parameters. Specifically, an EP's "office visit" definition/policy must include: *(1) concurrent care or transfer of care visits; (2) consultant visits; or (3) prolonged physician service without direct, face-to-face patient contact (for example, telehealth). A consultant visit occurs when a provider is asked to render an expert opinion/service for a specific condition or problem by a referring provider. The visit does not have to be individually billable in instances where multiple visits occur under one global fee.*

Stage 1 MU Change to the Menu Objective Exclusions

CMS' September 2012 final rule included a major change for radiologists related to the Stage 1 requirements. Currently, EPs are able to lower the total number of menu set objectives they select based on the number of exclusions from menu set objectives that they met. For example, if an EP was excluded from 1 of the 10 menu set objectives, instead of choosing 5 of 10, that EP would chose 4 of the remaining 9, and so on. For radiologists, the number of selected menu set objectives could conceivably be reduced to zero because of the number of radiology-applicable exclusions. CMS was concerned that some EPs were using that paradigm to avoid reporting on menu set objectives that they otherwise could have easily met.

Beginning in CY 2014, *EPs will not be allowed to lower their total menu set objectives based on menu set exclusions*. Therefore, if an EP is excluded from more than 5 of the 10 menu set objectives, that EP must report on all remaining menu set objectives she/he cannot be excluded from and attest to meeting the exclusions for the menu set objectives that were not completed.

Stage 1 MU Objective Changes

Many of the September 2012 final rule's changes to Stage 1 objectives are optional for EPs beginning in 2013 and mandatory in 2014 and beyond:

Table 1: September 2012 Changes to Stage 1 MU Objectives

Stage 1 Objective	Proposed Change(s)	Effective
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	**Change to denominator:** More than 30% of medication orders created by the EP during the EHR reporting period are recorded using CPOE	2013 (optional - can use new measure as an "alternative") 2014+
Generate and transmit permissible prescriptions electronically (eRx)	**Additional exclusion:** Any EP who does not have a pharmacy within their organization and there are no pharmacies that accept e-prescriptions within 10 miles of the EP's practice location.	2013+

Stage 1 Objective	Proposed Change(s)	Effective
Record and chart changes in vital signs	**Change to age limitations:** More than 50% of all unique patients seen by the EP during the EHR reporting period have blood pressure (for patients age 3 and over only) and height and weight (for all ages) recorded as structured data	2013 (optional - can use new measure as an alternative) 2014+
	Change to, and splitting up of, exclusions - 4 total: (1) Sees no patients 3 years or older is excluded from recording blood pressure; (2) Believes that all three vital signs of height, weight, and blood pressure have no relevance to their scope of practice is excluded from recording them; (3) Believes that height and weight are relevant to their scope of practice, but blood pressure is not, is excluded from recording blood pressure; or (4) Believes that blood pressure is relevant to their scope of practice, but height and weight are not, is excluded from recording height and weight.	
Capability to exchange key clinical information (for example, problem list, medication list, medication allergies, and diagnostic test results), among providers of care and patient authorized entities electronically	**Deletion**	2013+
Provide patients with an electronic copy of their health information (including diagnostics test results, problem list, medication lists, medication allergies) upon request.	**Replace with the Stage 2 objective and measure:** Objective: Provide patients the ability to view online, download and transmit their health information within 4 business days of the information being available to the EP Measure: More than 50% of all unique patients seen by the EP during the EHR reporting period are	2014+

Stage 1 Objective	Proposed Change(s)	Effective
Provide patients with timely electronic access to their health information (including lab results, problem list, medication lists, medication allergies) within 4business days of the information being available to the EP.	provided timely (within 4 business days after the information is available to the EP) online access to their health information subject to the EP's discretion to withhold certain information.	
Capability to submit electronic data to immunization registries or immunization information systems and actual submission according to applicable law and practice.	**Added clarification:** Addition of "except where prohibited" to the objective regulation text.	2013+
Capability to submit electronic syndromic surveillance data to public health agencies and actual submission according to applicable law and practice.		
Report ambulatory clinical quality measures to CMS	**Deletion:** Instead of being a separate objective, this will be incorporated into the definition of "meaningful EHR user." This change is administrative only and will not be noticeable to EPs.	2013+

Stage 2 MU Objectives

Stage 2 includes 17 core objectives and 6 menu set objectives. EPs must choose 3 of the 6 available menu set objectives. Many of the Stage 2 core objectives are slightly evolved versions of Stage 1 MU objectives. Several Stage 2 objectives have more than one measure and/or more than one exclusion option.

Table 2: Stage 2 Core MU Objectives

Stage 2 **Core** Objective	Measure(s)	Exclusion(s)
Use computerized provider order entry (CPOE) for medication, laboratory, and radiology orders directly entered by any licensed healthcare professional who can enter orders into the medical record per State, local, and professional guidelines.	(A) More than 60% of medication orders created by the EP during the EHR reporting period are recorded using CPOE. (B) More than 30 percent of laboratory orders created by the EP during the EHR reporting period are recorded using computerized provider order entry; and, (C) More than 30 percent of radiology orders created by the EP during the EHR reporting period are recorded using computerized provider order entry.	For measure (A), any EP who writes fewer than 100 medication orders during the EHR reporting period. For measure (B), any EP who writes fewer than 100 laboratory orders during the EHR reporting period. For measure (C), any EP who writes fewer than 100 radiology orders during the EHR reporting period.

Stage 2 **Core** Objective	Measure(s)	Exclusion(s)
Generate and transmit permissible prescriptions electronically (eRx).	More than 50% of all permissible prescriptions, or all prescriptions, written by the EP are queried for a drug formulary and transmitted electronically using CEHRT.	Any EP who: (A) Writes fewer than 100 prescriptions during the EHR reporting period; or, (B) Does not have a pharmacy within their organization and there are no pharmacies that accept electronic prescriptions within 10 miles of the EP's practice location at the start of his or her EHR reporting period.
Record all of the following demographics: (A) Preferred language. (B) Sex. (C) Race. (D) Ethnicity. (E) Date of birth.	More than 80% of all unique patients seen by the EP during the EHR reporting period have demographics recorded as structured data.	N/A
Record and chart changes in the following vital signs: (A)Height/Length. (B) Weight. (C) Blood pressure (ages 3 and over). (D) Calculate and display body mass index (BMI). (E) Plot and display growth charts for patients 0 - 20 years, including BMI.	More than 80% of all unique patients seen by the EP during the EHR reporting period have blood pressure (for patients age 3 and over only) and height/length and weight (for all ages) recorded as structured data.	Any EP who: (A) Sees no patients 3 years or older is excluded from recording blood pressure; (B) Believes that all three vital signs of height/length, weight, and blood pressure have no relevance to their scope of practice is excluded from recording them; (C) Believes that height/length and weight are relevant to their scope of practice, but blood pressure is not, is excluded from recording blood pressure; or (D) Believes that blood pressure is relevant to their scope of practice, but height/length and weight are not, is excluded from recording height/length and weight.

Stage 2 **Core** Objective	Measure(s)	Exclusion(s)
Record smoking status for patients 13 years old or older.	More than 80% of all unique patients 13 years old or older seen by the EP during the EHR reporting period have smoking status recorded as structured data.	Any EP who sees no patients 13 years old or older.
Use clinical decision support to improve performance on high priority health conditions.	(A) Implement five clinical decision support interventions related to four or more clinical quality measures at a relevant point in patient care for the entire EHR reporting period. Absent four clinical quality measures related to an EP's scope of practice or patient population, the clinical decision support interventions must be related to high-priority health conditions; and; and, (B) The EP has enabled and implemented the functionality for drug-drug and drug-allergy interaction checks for the entire EHR reporting period.	**For measure (B) only**, an EP who writes fewer than 100 medication orders during the EHR reporting period.
Incorporate clinical lab test results into CEHRT as structured data.	More than 55% of all clinical lab tests results ordered by the EP during the EHR reporting period whose results are either in a positive/negative affirmation or numerical format are incorporated in CEHRT as structured data.	Any EP who orders no lab tests whose results are either in a positive/negative affirmation or numeric format during the EHR reporting period.
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 with a specific condition.	N/A
Use clinically relevant information to identify patients who should receive reminders for preventive/follow-up care and send these patients the reminder, per patient preference.	More than 10% of all unique patients who have had two or more office visits with the EP within the 24 months before the beginning of the EHR reporting period were sent a reminder, per patient preference when available.	Any EP who has had no office visits in the 24 months before the beginning of the EHR reporting period.

Stage 2 **Core** Objective	Measure(s)	Exclusion(s)
Provide patients the ability to view online, download, and transmit their health information within 4 business days of the information being available to the EP.	(A) More than 50% of all unique patients seen by the EP during the EHR reporting period are provided timely (available to the patient within 4 business days after the information is available to the EP) online access to their health information subject to the EP's discretion to withhold certain information; and, (B) More than 5 percent of all unique patients seen by the EP during the EHR reporting period (or their authorized representatives) view, download or transmit to a third party their health information.	Any EP who: (A)Neither orders nor creates any of the information listed for inclusion as part of this measure, except for "patient name" and "provider's name and office contact information," *(i.e., problem list, procedures, lab-test results, meds and medication history, medication allergy list and medication allergy history, vital signs, smoking status, demographic information, care plan fields/goals and instructions)* is excluded from both (A) and (B) measures. (B) Conducts 50% or more of his or her patient encounters in a county that does not have 50% or more of its housing units with 3Mbps broadband availability according to the latest information available from the FCC on the first day of the EHR reporting period is excluded from (B) only.
Provide clinical summaries for patients for each office visit.	Clinical summaries provided to patients within 1 business day for more than 50% of office visits.	Any EP who has no office visits during the EHR reporting period.
Use clinically relevant information from CEHRT to identify patient-specific education resources and provide those resources to the patient.	Patient-specific education resources identified by CEHRT are provided to patients for more than 10% of all unique patients with office visits seen by the EP during the EHR reporting period.	Any EP who has no office visits during the EHR reporting period.
The EP 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 performs medication reconciliation for more than 50% of transitions of care in which the patient is transitioned into the care of the EP.	Any EP who was not the recipient of any transitions of care during the EHR reporting period.

Stage 2 **Core** Objective	Measure(s)	Exclusion(s)
The EP 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 care record for each transition of care or referral.	(A) The EP that 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; (B) The EP that transitions or refers their patient to another setting of care or provider of care provides a summary of care record for more than 10% of such transitions and referrals either—1) Electronically transmitted using CEHRT to a recipient; or, 2) Where the recipient receives the summary of care record via exchange facilitated by an organization that is a NwHIN Exchange participant or in a manner that is consistent with the governance mechanism ONC establishes for the nationwide health information network; and, (C) 1) Conducts one or more successful electronic exchanges of a summary of care record meeting measure B with a recipient using technology to receive the summary of care record that was designed by a different EHR developer than the sender's EHR technology; or, 2) Conducts one or more successful tests with the CMS designated test EHR during the EHR reporting period.	Any EP who transfers a patient to another setting or refers a patient to another provider less than 100 times during the EHR reporting period.

Stage 2 **Core** Objective	Measure(s)	Exclusion(s)
Capability to submit electronic data to immunization registries or immunization information systems except where prohibited, and in accordance with applicable law and practice.	Successful ongoing submission of electronic immunization data from CEHRT to an immunization registry or immunization information system for the entire EHR reporting period.	Any EP that meets one or more of the following criteria: (A) Does not administer any of the immunizations to any of the populations for which data is collected by their jurisdiction's immunization registry or immunization information system during the EHR reporting period. (B) Operates in a jurisdiction for which no immunization registry or immunization information system is capable of accepting the specific standards required for CEHRT at the start of his or her EHR reporting period. (C) Operates in a jurisdiction where no immunization registry or immunization information system provides information timely on capability to receive immunization data. (D) Operates in a jurisdiction for which no immunization registry or immunization information system that is capable of accepting the specific standards required by CEHRT at the start of his or her EHR reporting period can enroll additional EPs.
Protect electronic health information created or maintained by the CEHRT through the implementation of appropriate technical capabilities.	Conduct or review a security risk analysis in accordance with the requirements under 45 CFR 164.308(a)(1), including addressing the encryption/security of data stored in Certified EHR Technology in accordance with requirements under 45 CFR 164.312(a)(2)(iv) and 45 CFR 164.306(d)(3), and implement security updates as necessary and correct identified security deficiencies as part of the EP's risk management process.	N/A

Stage 2 **Core** Objective	Measure(s)	Exclusion(s)
Use secure electronic messaging to communicate with patients on relevant health information.	A secure message was sent using the electronic messaging function of CEHRT by more than 5% of unique patients (or their authorized representatives) seen by the EP during the EHR reporting period.	Any EP who meets one or more of the following criteria: (A)Has no office visits during the EHR reporting period. (B) Conducts 50% or more of his or her patient encounters in a county that does not have 50% or more of its housing units with 3Mbps broadband availability according to the latest information available from the FCC on the first day of their EHR reporting period.

Table 3: Stage 2 Menu Objectives (choose 3 of 6)

Stage 2 **Menu** Objective	Measure(s)	Exclusion(s)
Imaging results consisting of the image itself and any explanation or other accompanying information are accessible through CEHRT.	More than 10% of all tests whose result is one or more images ordered by the EP during the EHR reporting period are accessible through CEHRT.	Any EP who meets one or more of the following criteria: (A) Orders less than 100 tests whose result is an image during the EHR reporting period. (B) Has no access to electronic imaging results at the start of the EHR reporting period.
Record patient family health history as structured data.	More than 20% of all unique patients seen by the EP during the EHR reporting period have a structured data entry for one or more first-degree relatives.	Any EP who has no office visits during the EHR reporting period.

Stage 2 **Menu** Objective	Measure(s)	Exclusion(s)
Capability to submit electronic syndromic surveillance data to public health agencies, except where prohibited, and in accordance with applicable law and practice.	Successful ongoing submission of electronic syndromic surveillance data from CEHRT to a public health agency for the entire EHR reporting period.	Any EP that meets one or more of the following criteria: (A) Is not in a category of providers who collect ambulatory syndromic surveillance information on their patients during the EHR reporting period. (B) Operates in a jurisdiction for which no public health agency is capable of receiving electronic syndromic surveillance data in the specific standards required for CEHRT at the start of their EHR reporting period. (C) Operates in a jurisdiction where no public health agency provides information timely on capability to receive syndromic surveillance data. (D) Operates in a jurisdiction for which no public health agency that is capable of accepting the specific standards required by CEHRT at the start of their EHR reporting period can enroll additional EPs.

Stage 2 **Menu** Objective	Measure(s)	Exclusion(s)
Capability to identify and report cancer cases to a public health central cancer registry, except where prohibited, and in accordance with applicable law and practice.	Successful ongoing submission of cancer case information from CEHRT to a public health central cancer registry for the entire EHR reporting period.	Any EP who meets one or more of the following: (A) Does not diagnose or directly treat cancer. (B) Operates in a jurisdiction for which no public health agency is capable of receiving electronic cancer case information in the specific standards required for CEHRT at the start of their EHR reporting period. (C) Operates in a jurisdiction where no public health agency provides information timely on capability to receive electronic cancer case information. (D) Operates in a jurisdiction for which no public health agency that is capable of receiving electronic cancer case information in the specific standards required for CEHRT at the beginning of their EHR reporting period can enroll additional EPs.

Stage 2 **Menu** Objective	Measure(s)	Exclusion(s)
Capability to identify and report specific cases to a specialized registry (other than a cancer registry), except where prohibited, and in accordance with applicable law and practice.	Successful ongoing submission of specific case information from CEHRT to a specialized registry for the entire EHR reporting period.	Any EP who meets one or more of the following criteria: (A) Does not diagnose or directly treat any disease associated with a specialized registry sponsored by a national specialty society for which the EP is eligible, or the public health agencies in their jurisdiction; (B) Operates in a jurisdiction for which no specialized registry sponsored by a public health agency or by a national specialty society for which the EP is eligible is capable of receiving electronic specific case information in the specific standards required by CEHRT at the beginning of their EHR reporting period; (C) Operates in a jurisdiction where no public health agency or national specialty society for which the EP is eligible provides information timely on capability to receive information into their specialized registries; or, (D) Operates in a jurisdiction for which no specialized registry sponsored by a public health agency or by a national specialty society for which the EP is eligible that is capable of receiving electronic specific case information in the specific standards required by CEHR at the beginning of his or her EHR reporting period can enroll additional EPs.
Record electronic notes in patient records.	Enter at least one electronic progress note created, edited, and signed by an EP for more than 30 percent of unique patients with at least one office visit during the EHR reporting period. The text of the electronic note must be text-searchable and may contain drawings and other content.	N/A

Individual and Batch File Attestation to Compliance with MU Objectives
CMS' September 2012 final rule continues the current method of online "attestation" for reporting a Medicare EP's MU compliance to CMS. The EP can complete the attestation his/herself, or designate someone to complete their attestation on their behalf, such as a practice manager. This is no different from the attestation paradigm that was established in 2011.

In the future, but no later than January 1, 2014, CMS will also implement an alternative "batch file" process for attestation that would allow practice managers to submit a large number of attestations at once. EPs in the practice still need to meet the various MU objectives individually. The CQMs component of MU would be reported via a separate process, discussed in the next section.

Clinical Quality Measures and CQM Reporting Options
CMS' September 2012 final rule decouples reporting CQMs from the MU objectives. Instead of tying CQMs to a Stage, the CQMs list and CQM-reporting methodologies will be tied to calendar year. Currently, EPs are reporting the 2011 set of CQMs. All EPs will move up to the 2014 CQMs in CY 2014 regardless of Stage.

CMS will update the specifications for 2011 and 2014 CQMs via their website instead of via rulemaking. The specifications for the 2014 CQMs will be made available online around when CMS' final rule is published (September 4, 2012). CMS also indicated that it could potentially remove specific CQMs under certain circumstance—for example, in case the measure developer significantly changes the CQM's intent.

In completing the MU requirement to report CQMs in CY 2014 and beyond, EPs have several different options.

Individual Option 1: EPs can choose to report 9 of 64 CQMs from the 2014 list (see the below table) that cover at least three "domains." CMS will assign the various CQMs to the domains via future guidance. CMS will designate different "core" CQMs for adult and children populations; however, selecting these designated core CQMs will be entirely optional, unlike with the 2011 core/alternate core CQMs. If an EP's CEHRT does not contain patient data for at least 9 CQMs covering 3 domains, then the EP must report the CQMs for which there is patient data and report the remaining required CQMs as "zero denominators" as displayed by the CEHRT. If there are no CQMs applicable to the EP's scope of practice and patient population, the EP must still report the zeros for 9 CQMs.

This option entails electronic submission of aggregate results of CQMs using the QRDA-III (XML-based) specification. In CY 2011 through 2013, automatic CQM calculations from CEHRT are reported to CMS via attestation (or the e-reporting pilot). In 2014 and beyond, EPs who are in their first year of MU report the CQMs via the old (2011-2013) attestation method.

Individual Option 2: If an EP submits and satisfactorily reports CQMs under the Physician Quality Reporting System's (PQRS) "EHR Reporting Option" using CEHRT, this will serve as a substitute for reporting CQMs in the EHR Incentive Program. EPs in their first year of MU compliance in a year preceding a payment adjustment year are not allowed to choose this option because of deadline differences in the two programs.

Group Option 1: If an EP participates in the Medicare Shared Savings Program (SSP) and the testing of the Pioneer Accountable Care Organization (ACO) model in accordance with the requirements of the SSP, this will serve as a substitute for reporting CQMs in the Medicare version of the EHR Incentive Program for EPs.

Group Option 2: If an EP satisfactorily reports PQRS CQMs using CEHRT under the PQRS' Group Practice Reporting Option (GPRO), this will serve as a substitute for reporting CQMs in the Medicare version of the EHR Incentive Program. As with Individual Option 2, Group Option 2 will not be available to EPs in their first year of MU compliance.

Table 4: 2014 List of CQMs

NQF Number	Clinical Quality Measure Title and Description
NQF 0059	Title: Diabetes: Hemoglobin A1c Poor Control Description: Percentage of patients 18 - 75 years of age with diabetes (type 1 or type 2) who had hemoglobin A1c > 9.0%.
NQF 0064	Title: Diabetes: Low Density Lipoprotein (LDL) Management and Control Description: Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had LDL-C < 100 mg/dL).
NQF 0081	Title: Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD) Description: Percentage of patients aged 18 years and older with a diagnosis of heart failure and LVSD (LVEF < 40%) who were prescribed ACE inhibitor or ARB therapy.
NQF 0070	Title: Coronary Artery Disease (CAD): Beta-Blocker Therapy for CAD Patients with Prior Myocardial Infarction (MI) Description: Percentage of patients aged 18 years and older with a diagnosis of CAD and prior MI who were prescribed beta-blocker therapy.
NQF 0041	Title: Preventive Care and Screening: Influenza Immunization for Patients ≥ 50 Years Old Description: Percentage of patients aged 50 years and older who received an influenza immunization during the flu season (September through February).
NQF 0043	Title: Pneumonia Vaccination Status for Older Adults Description: Percentage of patients 65 years of age and older who have ever received a pneumococcal vaccine.
NQF 0031	Title: Breast Cancer Screening Description: Percentage of women 40-69 years of age who had a mammogram to screen for breast cancer.
NQF 0034	Title: Colorectal Cancer Screening Description: Percentage of adults 50-75 years of age who had appropriate screening for colorectal cancer.
NQF 0083	Title: Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD) Description: Percentage of patients aged 18 years and older with a diagnosis of heart failure who also have LVSD (LVEF < 40%) and who were prescribed betablocker therapy.
NQF 0105	Title: Anti-depressant medication management: (a) Effective Acute Phase Treatment, (b)Effective Continuation Phase Treatment Description: The percentage of patients 18 years of age and older who were diagnosed with a new episode of major depression, treated with antidepressant medication, and who remained on an antidepressant medication treatment.
NQF 0086	Title: Primary Open Angle Glaucoma (POAG): Optic Nerve Evaluation Description: Percentage of patients aged 18 years and older with a diagnosis of POAG who have been seen for at least two office visits who have an optic nerve head evaluation during one or more office visits within 12 months.
NQF 0088	Title: Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy Description: 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.

NQF Number	Clinical Quality Measure Title and Description
NQF 0089	Title: Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care Description: 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 ongoing care of the patient with diabetes mellitus regarding the findings of the macular or fundus exam at least once within 12 months.
NQF 0002	Title: Appropriate Testing for Children with Pharyngitis Description: Percentage of children 2-18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic and received a group A streptococcus (strep) test for the episode.
NQF 0387	Title: Oncology Breast Cancer: Hormonal Therapy for Stage IC-IIIC Estrogen Receptor/Progesterone Receptor (ER/PR) Positive Breast Cancer Description: Percentage of female patients aged 18 years and older with Stage IC through IIIC, ER or PR positive breast cancer who were prescribed tamoxifen or aromatase inhibitor (AI) during the 12-month reporting period.
NQF 0385	Title: Oncology Colon Cancer: Chemotherapy for Stage III Colon Cancer Patients Description: Percentage of patients aged 18 years and older with Stage IIIA through IIIC colon cancer who are referred for adjuvant chemotherapy, prescribed adjuvant chemotherapy, or have previously received adjuvant chemotherapy within the 12-month reporting period.
NQF 0389	Title: Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low Risk Prostate Cancer Patients Description: 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.
NQF 0055	Title: Diabetes: Eye Exam Description: Percentage of patients 18 -75 years of age with diabetes (type 1 or type 2) who had a retinal or dilated eye exam or a negative retinal exam (no evidence of retinopathy) by an eye care professional.
NQF 0062	Title: Diabetes: Urine Screening Description: Percentage of patients 18 - 75 years of age with diabetes (type 1 or type 2) who had a nephropathy screening test or evidence of nephropathy.
NQF 0421	Title: Adult Weight Screening and Follow-Up Description: 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.
NQF 0056	Title: Diabetes: Foot Exam Description: The percentage of patients aged 18 - 75 years with diabetes (type 1 or type 2) who had a foot exam (visual inspection, sensory exam with monofilament, or pulse exam).
NQF 0068	Title: Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic Description: 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 coronary 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 documentation of use of aspirin or another antithrombotic during the measurement year.

NQF Number	Clinical Quality Measure Title and Description
NQF 0004	Title: Initiation and Engagement of Alcohol and Other Drug Dependence Treatment: (a) Initiation, (b) Engagement Description: The percentage of adolescent and adult patients with a new episode of alcohol and other drug (AOD) dependence who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization within 14 days of the diagnosis and who initiated treatment and who had two or more additional services with an AOD diagnosis within 30 days of the initiation visit.
NQF 0018	Title: Controlling High Blood Pressure Description: The percentage of patients 18-85 years of age who had a diagnosis of hypertension and whose BP was adequately controlled during the measurement year
NQF 0022	Title: Use of High-Risk Medications in the Elderly Description: Percentage of patients 66 years of age and older who were ordered high-risk medications. Two rates are reported. a. Percentage of patients who were ordered at least one high-risk medication. b. Percentage of patients who were ordered at least two different high-risk medications.
NQF 0024	Title: Weight Assessment and Counseling for Children and Adolescents Description: 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	Title: Preventive Care and Screening Measure Pair: a. Tobacco Use Assessment, b. Tobacco Cessation Intervention Description: 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	Title: Cervical Cancer Screening Description: Percentage of women 21-64 years of age, who received one or more Pap tests to screen for cervical cancer
NQF 0033	Title: Chlamydia Screening for Women Description: Percentage of women 15- 24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year.
NQF 0036	Title: Use of Appropriate Medications for Asthma Description: Percentage of patients 5 - 50 years of age who were identified as having persistent asthma and were appropriately prescribed medication during the measurement year. Report three age stratifications (5-11 years, 12-50 years, and total).
NQF 0038	Title: Childhood Immunization Status Description: Percentage of children 2 years of age who had four diphtheria, tetanus and acellular pertussis (DTaP); three polio(IPV), one measles, ,mumps and rubella (MMR); two H influenza type B (HiB); three hepatitis B (Hep B); one chicken pox (VZV); four pneumococcal conjugate (PCV); two hepatitis A (Hep A); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday. The measure calculates a rate for each vaccine and nine separate combination rates.
NQF 0052	Title: Low Back Pain: Use of Imaging Studies Description: Percentage of patients with a primary diagnosis of low back pain who did not have an imaging study (plain x-ray, MRI, CT scan) within 28 days of diagnosis.

NQF Number	Clinical Quality Measure Title and Description
NQF 0075	Title: Ischemic Vascular Disease (IVD): Complete Lipid Panel and LDL Control Description: 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-November1 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 0060	Title: Hemoglobin A1c Test for Pediatric Patients Description: Percentage of pediatric patients with diabetes with an HbA1c test in a 12-month measurement period
NQF 0069	Title: Appropriate Treatment for Children with Upper Respiratory Infection (URI) Description: Percentage of children 3 months-18 years of age who were diagnosed with upper respiratory infection (URI) and were not dispensed an antibiotic prescription on or three days after the episode.
NQF 0101	Title: Falls: Screening for Falls Risk Description: Percentage of patients aged 65 years and older who were screened for future fall risk (patients are considered at risk for future falls if they have had 2 or more falls in the past year or any fall with injury in the past year) at least once within 12 months
NQF 0104	Title: Major Depressive Disorder (MDD): Suicide Risk Assessment Description: Percentage of patients aged 18 years and older with a new diagnosis or recurrent episode of MDD who had a suicide risk assessment completed at each visit during the measurement period
NQF 0108	Title: ADHD: Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication Description: (a) Initiation Phase: Percentage of children 6-12 years of age as of the Index Prescription Episode Start Date with an ambulatory prescription dispensed for ADHD medication and who had one follow-up visit with a practitioner with prescribing authority during the 30-Day Initiation Phase (b) Continuation and Maintenance (C&M) Phase: Percentage of children 6-12 years of age as of the Index Prescription Episode Start Date with an ambulatory prescription dispensed for ADHD medication who remained on the medication for at least 210 days and who, in addition to the visit in the Initiation Phase, had at least two additional follow-up visits with a practitioner within 270 days (9 months) after the Initiation Phase ended
NQF 0110	Title: Bipolar Disorder and Major Depression: Appraisal for alcohol or chemical substance use Description: Percentage of patients with depression or bipolar disorder with evidence of an initial assessment that includes an appraisal for alcohol or chemical substance use
NQF 0384	Title: Oncology: Measure Pair: Oncology: Medical and Radiation- Pain Intensity Quantified Description: Percentage of patient visits, regardless of patient age, with a diagnosis of cancer currently receiving chemotherapy or radiation therapy in which pain intensity is quantified
NQF 0403	Title: Medical Visits Description: Percentage of patients regardless of age, with a diagnosis of HIV/AIDS with at least one medical visit in each 6 month period with a minimum of 60 days between each visit
NQF 0405	Title: Pneumocystitis jiroveci pneumonia (PCP) Prophylaxis Description: Percentage of patients with HIV/AIDS who were prescribed Pneumocystis jiroveci pneumonia (PCP) prophylaxis

NQF Number	Clinical Quality Measure Title and Description
TBD (Proposed as NQF 0407)	Title: HIV RNA control after six months of potent antiretroviral therapy Description: Percentage of patients aged 13 years and older with a diagnosis of HIV/AIDS who had at least two medical visits during the measurement year, with at least 60 days between each visit, who are receiving potent antiretroviral therapy, who have a viral load below limits of quantification after at least 6 months of potent antiretroviral therapy OR whose viral load is not below limits of quantification after at least 6 months of potent antiretroviral therapy and has a documented plan of care
NQF 0418	Title: Screening for Clinical Depression Description: Percentage of patients aged 12 years and older screened for clinical depression using an age appropriate standardized tool and follow up plan documented
NQF 0419	Title: Documentation of Current Medications in the Medical Record Description: Percentage of specified visits as defined by the denominator criteria for which the eligible professional attests to documenting a list of current medications to the best of his/her knowledge and ability. This list must include ALL prescriptions, over-the-counters, herbals, vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosage, frequency and route
NQF 0564	Title: Cataracts: Complications within 30 Days Following Cataract Surgery Requiring Additional Surgical Procedures Description: Percentage of patients aged 18 years and older with a diagnosis of uncomplicated cataract who had cataract surgery and had any of a specified list of surgical procedures in the 30 days following cataract surgery which would indicate the occurrence of any of the following major complications: retained nuclear fragments, endophthalmitis, dislocated or wrong power IOL, retinal detachment, or wound dehiscence
NQF 0565	Title: Cataracts: 20/40 or Better Visual Acuity within 90 Days Following Cataract Surgery Description: Percentage of patients aged 18 years and older with a diagnosis of uncomplicated cataract who had cataract surgery and no significant ocular conditions impacting the visual outcome of surgery and had best-corrected visual acuity of 20/40 or better (distance or near) achieved within 90 days following the cataract surgery
NQF 0608	Title: Pregnant women that had HBsAg testing Description: This measure identifies pregnant women who had a HBsAg (hepatitis B) test during their pregnancy
NQF 0710	Title: Depression Remission at Twelve Months Description: Adult patients age 18 and older with major depression or dysthymia and an initial PHQ-9 score >9 who demonstrate remission at twelve months defined as PHQ-9 score less than 5. This measure applies to both patients with newly diagnosed and existing depression whose current PHQ-9 score indicates a need for treatment
NQF 0712	Title: Depression Utilization of the PHQ-9 Tool Description: Adult patients age 18 and older with the diagnosis of major depression or dysthymia who have a PHQ-9 tool administered at least once during a 4 month period in which there was a qualifying visit
TBD (proposed as NQF 1335)	Title: Children who have dental decay or cavities Description: Assesses if children aged 1-17 years have had tooth decay or cavities in the past 6 months
NQF 1365	Title: Child and Adolescent Major Depressive Disorder: Suicide Risk Assessment Description: Percentage of patient visits for those patients aged 6 through 17 years with a diagnosis of major depressive disorder with an assessment for suicide risk
NQF 1401	Title: Maternal depression screening Description: The percentage of children who turned 6 months of age during the measurement year who had documentation of a maternal depression screening for the mother

NQF Number	Clinical Quality Measure Title and Description
TBD (proposed as NQF 1419)	Title: Primary Caries Prevention Intervention as Part of Well/Ill Child Care as Offered by Primary Care Medical Providers Description: The measure will a) track the extent to which the PCMP or clinic (determined by the provider number used for billing) applies FV as part of the EPSDT examination and b) track the degree to which each billing entity's use of the EPSDT with FV codes increases from year to year (more children varnished and more children receiving FV four times a year according to ADA recommendations for high-risk children)
TBD (LDL)	Title: Preventive Care and Screening: Cholesterol – Fasting Low Density Lipoprotein (LDL-C) Test Performed Description: Percentage of patients aged 20 through 79 years whose risk factors have been assessed and a fasting LDL-C test has been performed.
TBD (Fasting LDL)	Title: Preventive Care and Screening: Risk-Stratified Cholesterol – Fasting Low Density Lipoprotein (LDL-C) Description: Percentage of patients aged 20 through 79 years who had a fasting LDL-C test performed and whose risk-stratified fasting LDL-C is at or below the recommended LDL-C goal.
TBD (Dementia)	Title: Dementia: Cognitive Assessment Description: Percentage of patients, regardless of age, with a diagnosis of dementia for whom an assessment of cognition is performed and the results reviewed at least once within a 12 month period.
TBD (Hypertension)	Title: Hypertension: Improvement in blood pressure Description: Percentage of patients aged 18 years and older with hypertension whose blood pressure improved during the measurement period
TBD (Closing the referral loop)	Title: Closing the referral loop: receipt of specialist report Description: Percentage of patients regardless of age with a referral from a primary care provider for whom a report from the provider to whom the patient was referred was received by the referring provider
TBD (FSA knee)	Title: Functional status assessment for knee replacement Description: Percentage of patients aged 18 years and older with primary total knee arthroplasty (TKA) who completed baseline and follow-up (patient-reported) functional status assessments
TBD (FSA hip)	Title: Functional status assessment for hip replacement Description: Percentage of patients aged 18 years and older with primary total hip arthroplasty (THA) who completed baseline and follow-up (patient-reported) functional status assessments
TBD (FSA complex)	Title: Functional status assessment for complex chronic conditions Description: Percentage of patients aged 65 years and older with heart failure and two or more high impact conditions who completed initial and follow-up (patient-reported) functional status assessments
TBD (ADE)	Title: Adverse Drug Event (ADE) Prevention: Outpatient therapeutic drug monitoring Description: Percentage of patients 18 years of age and older receiving outpatient chronic medication therapy who had the appropriate therapeutic drug monitoring during the measurement year
TBD (HBP follow up)	Title: Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented Description: Percentage of patients aged 18 years and older seen during the reporting period who were screened for high blood pressure AND a recommended follow-up plan is documented based on the current blood pressure (BP) reading as indicated

"Certified EHR Technology"
EPs need to meaningfully use "CEHRT" in order to comply with the program. ONC's September 2012 final rule greatly increased the flexibility in the regulatory definition of CEHRT, removing the previous comprehensiveness requirement.

Up through CY 2013, the definition of CEHRT has been changed to consist of 3 options:

i. A Complete EHR certified as meeting all 2011 Edition EHR certification criteria or the equivalent 2014 Edition EHR certification criteria;
ii. A combination of individually certified EHR Modules that collectively meet all 2011 Edition EHR certification criteria or the equivalent 2014 Edition EHR certification criteria; or,
iii. EHR technology that satisfies the 2014+ regulatory definition of CEHRT.

Note that if EPs are using 2014 CEHRT prior to CY 2014, those EPs still need to report the 2011 CQMs (i.e., 3 core or alternate core CQMs, and 3 additional CQMs). Therefore, the CQMs they report must be included in both the 2011 and 2014 lists of CQMs because 2014 Edition certified products would obviously not enable reporting of discontinued 2011 CQMs.

In CY 2014 and beyond, CEHRT is a product or combination of products certified to the 2014 Edition EHR certification criteria that covers the "Base EHR" certification criteria and any additional 2014 Edition certification criteria necessary for the EP to meet the MU objectives and measures for the Stage of MU she/he is in and successfully report CQMs. In other words, if a certification criterion represents a functionality that is not needed by the EP because of objective exclusions/choices, and it is not in the Base EHR list, that criterion does not have to be covered by the EP's certified product or combination of certified products. For example, if the EP is excluded from the eRx objective, she/he does not need to have the eRx certification criterion covered by her/his certified product(s).

Complete EHRs and EHR Modules
"Complete EHR, 2011 Edition" means that the product was certified for all mandatory 2011 Edition certification criteria for the ambulatory setting (in the EP version of the program).

"Complete EHR, 2014 Edition" means that the product was certified for the Base EHR certification criteria and all mandatory 2014 Edition certification criteria for the ambulatory setting.

"EHR Modules" are products that have been certified for one or more, but not all mandatory certification criteria. Due to the change to the regulatory definition of CEHRT in 2014, it is possible for EPs to have a single EHR Module certified to the 2014 Edition certification criteria that meets this regulatory definition.

EHR Modules certified to the 2011 Edition certification criteria must be certified for all privacy and security criteria *unless* they are presented for certification as part of a pre-coordinated, integrated, comprehensive bundle in which the privacy and security criteria are handled by other components of the bundle; or the developer can demonstrate that a privacy and security criterion is inapplicable or technically infeasible.

EHR Modules certified to the 2014 Edition certification criteria have certain situation-dependent requirements. All EHR Modules need to be certified for the "quality management system" criterion. If the EHR Module has capabilities presented for certification that would support MU objectives with percentage-based measures, the EHR Module must also be certified for the "automated numerator recording" criterion. If the EHR Module has certification for the "CPOE," "drug-drug/drug-allergy interaction checks," "medication list," "medication allergy list," "clinical decision support," "eRx," and/or "clinical information reconciliation" criteria, it must also be certified for the "safety-enhanced design" criterion.

2014 Edition Certification Criteria, Standards, and Implementation Specifications
ONC's certification criteria ensure that HIT products can provide the functionality an EP needs to enable corresponding MU requirements.

The 2011 Edition EHR certification criteria implemented in ONC's July 2010 final rule were categorized into three buckets: General, Ambulatory, and Inpatient. Technology used by EPs needed the mandatory General and Ambulatory certification criteria covered by their Complete EHR or combination of EHR Modules in order to have "CEHRT." The Inpatient criteria were specific to the Eligible Hospital version of the program. This created a divide between the CEHRT requirements for hospitals and the CEHRT requirements for physicians, which led to access problems for physicians located in hospital-owned facilities.

To partially address this problem and to simplify the regulations, ONC's 2014 Edition certification criteria are not categorized into General, Ambulatory, and Inpatient buckets. Instead, all criteria are in a single bucket that includes a few setting-specific criteria and subcomponents of criteria.

Table 5: 2014 Edition EHR Certification Criteria, Standards, and Implementation Specifications
** Base EHR criteria are shaded green.*
** Standards are included and highlighted in yellow.*
** Implementation specifications are included and highlighted in blue.*
** Inpatient setting-specific criteria and subcomponents of criteria are not included.*

2014 Edition Criteria with Corresponding Standards and Implementation Specifications	
Clinical: CPOE	Enable a user to electronically record, change, and access the following order types, at a minimum: Medications; Laboratory; and Radiology/imaging.
Clinical: Drug-drug, drug-allergy interaction checks	Interventions. Before a medication order is completed and acted upon during computerized provider order entry (CPOE), interventions must automatically and electronically indicate to a user at the point of care of drug-drug and drug-allergy contraindications based on a patient's medication list and medication allergy list. Adjustments. (A) Enable the severity level of interventions provided for drug-drug interaction checks to be adjusted. (B) Limit the ability to adjust severity levels to an identified set of users or available as a system administrative function.
Clinical: Demographics	Enable a user to electronically record, change, and access patient demographic data including preferred language, sex, race, ethnicity, and date of birth. (A) Enable race and ethnicity to be recorded in accordance with The Office of Management and Budget Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity, Statistical Policy Directive No. 15, as revised, October 30, 1997 (see "Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity," available at http://www.whitehouse.gov/omb/fedreg_1997standards) and whether a patient declines to specify race and/or ethnicity. (B) Enable preferred language to be recorded in accordance with the standard as specified by the Library of Congress, ISO 639-2 alpha-3 codes limited to those that also have a corresponding alpha-2 code in ISO 639-1 and whether a patient declines to specify a preferred language.

2014 Edition Criteria with Corresponding Standards and Implementation Specifications	
Clinical: Vital signs, body mass index, and growth charts	*Vital signs.* Enable a user to electronically record, change, and access, at a minimum, a patient's height/length, weight, and blood pressure. Height/length, weight, and blood pressure must be recorded in numerical values only. *Calculate body mass index*. Automatically calculate and electronically display body mass index based on a patient's height and weight. (*Optional) Plot and electronically display, upon request, growth charts for patients.*
Clinical: Problem list	Enable a user to electronically record, change, and access a patient's active problem list over multiple encounters in accordance with, at a minimum, IHTSDO SNOMED CT® International Release July 2012 and US Extension to SNOMED CT® March 2012 Release.
Clinical: Medication list	Enable a user to electronically record, change, and access a patient's active medication list as well as medication history over multiple encounters.
Clinical: Medication allergy list	Enable a user to electronically record, change, and access a patient's active medication allergy list as well as medication allergy history over multiple encounters.

2014 Edition Criteria with Corresponding Standards and Implementation Specifications	
Clinical: Clinical decision support	*Evidence-based decision support interventions*. Enable a limited set of identified users to select (i.e., activate) one or more electronic clinical decision support interventions (in addition to drug-drug and drug- allergy contraindication checking) based on each one and at least one combination of the following data: A) Problem list; (B) Medication list; (C) Medication allergy list; (D) Demographics; (E) Laboratory tests and values/results; and (F) Vital signs. *Linked referential clinical decision support*. (A) EHR technology must be able to: (1) Electronically identify for a user diagnostic and therapeutic reference information; or, (2) Electronically identify for a user diagnostic and therapeutic reference information in accordance with HL7 Version 3 Standard: Context-Aware Retrieval Application (Infobutton) and HL7 Version 3 Implementation Guide: URL-Based Implementations of the Context-Aware Information Retrieval (Infobutton) Domain, or, HL7 Version 3 Implementation Guide: Context-Aware Knowledge Retrieval (Infobutton) Service-Oriented Architecture Implementation Guide. (B) For (A) above, EHR technology must be able to electronically identify for a user diagnostic or therapeutic reference information based on each one and at least one combination of problem list, medication list, medication allergy list, demographics, lab-tests and values/results, and vital signs. *Configure clinical decision support*. (A) Enable interventions and reference resources specified in the previous two paragraphs to be configured by a limited set of identified users (e.g., system administrator) based on a user's role. (B) EHR technology must enable interventions to be electronically triggered: (1) based on the problem list, medication list, medication allergy list, demographics, lab-tests and values/results, and vital signs data elements; (2) When a patient's medications, medication allergies, and problems are incorporated from a transition of care/referral summary; (3) When a patient's laboratory tests and values/results are incorporated. *Automatically and electronically interact.* Interventions triggered in accordance with the above three paragraphs must automatically and electronically occur when a user is interacting with EHR technology. *Source attributes*. Enable a user to review the attributes Enable a user to review the attributes as indicated for all clinical decision support resources: (A) For evidence-based decision support interventions under the first paragraph: (1) Bibliographic citation of the intervention (clinical research/guideline); (2) Developer of the intervention (translation from clinical research/guideline); (3) Funding source of the intervention development technical implementation; and (4) Release and, if applicable, revision date(s) of the intervention or reference source. (B) For linked referential clinical decision support and drug-drug, drug-allergy interaction checks, the developer of the intervention, and where clinically indicated, the bibliographic citation of the intervention (clinical research/guideline).
Clinical: Electronic notes	Enable a user to electronically record, change, access, and search electronic notes.
Clinical: Drug-formulary checks	EHR technology must automatically and electronically check whether a drug formulary (or preferred drug list) exists for a given patient and medication.

2014 Edition Criteria with Corresponding Standards and Implementation Specifications	
Clinical: Smoking status	Enable a user to electronically record, change, and access the smoking status of a patient in accordance with the following SNOMED CT® codes: (1) Current every day smoker. 449868002; (2) Current some day smoker. 428041000124106; (3) Former smoker. 8517006; (4) Never smoker. 266919005; (5) Smoker, current status unknown. 77176002; (6) Unknown if ever smoked. 266927001; (7) Heavy tobacco smoker. 428071000124103; (8) Light tobacco smoker. 428061000124105.
Clinical: Imaging results	Electronically indicate to a user the availability of a patient's images and narrative interpretations (relating to the radiographic or other diagnostic test(s)) and enable immediate electronic access to such images and narrative interpretations.
Clinical: Family health history	Enable a user to electronically record, change, and access a patient's family health history according to: at a minimum, IHTSDO SNOMED CT® International Release July 2012 and US Extension to SNOMED CT® March 2012 Release; or, HL7 Version 3 Standard: Clinical Genomics; Pedigree.
Clinical: Patient list creation	Enable a user to electronically and dynamically select, sort, access, and create patient lists by: date and time; and based on each one and at least one combination of the following data: (i) Problems; (ii) Medications; (iii) Medication allergies; (iv) Demographics; (v) Laboratory tests and values/results; and (vi) Patient communication preferences.
Clinical: Patient-specific educational resources	EHR technology must be able to electronically identify for a user patient-specific education resources based on data included in the patient's problem list, medication list, and laboratory tests and values/results: (i) in accordance with HL7 Version 3 Standard: Context-Aware Retrieval Application (Infobutton) and HL7 Version 3 Implementation Guide: URL-Based Implementations of the Context-Aware Information Retrieval (Infobutton) Domain, or, HL7 Version 3 Implementation Guide: Context-Aware Knowledge Retrieval (Infobutton) Service-Oriented Architecture Implementation Guide. And, (ii) by any means other than the method specified in the previous sentence.

2014 Edition Criteria with Corresponding Standards and Implementation Specifications	
Care Coordination: Transitions of care – receive, display, and incorporate transition of care/referral summaries	*Receive*. EHR technology must be able to electronically receive transition of care/referral summaries in accordance with (A) ONC Applicability Statement for Secure Health Transport. (B) Optional. ONC Applicability Statement for Secure Health Transport and ONC XDR and XDM for Direct Messaging Specification. (C) Optional. ONC XDR and XDM for Direct Messaging Specification and ONC Transport and Security Specification. *Display*. EHR technology must be able to electronically display in human readable format the data included in transition of care/referral summaries received and formatted according to any of the following standards (and applicable implementation specifications): Health Level Seven Clinical Document Architecture (CDA) Release 2, Continuity of Care Document (CCD) and The Healthcare Information Technology Standards Panel (HITSP) Summary Documents Using HL7 CCD Component HITSP/C32; ASTM E2369 Standard Specification for Continuity of Care Record and Adjunct to ASTM E2369; or, HL7 Implementation Guide for CDA® Release 2: IHE Health Story Consolidation (the use of the "unstructured document" document-level template is prohibited). *Incorporate*. Upon receipt of a transition of care/referral summary formatted according to the standard adopted at HL7 Implementation Guide for CDA® Release 2: IHE Health Story Consolidation (the use of the "unstructured document" document-level template is prohibited), EHR technology must be able to: (A) *Correct patient*. Demonstrate that the transition of care/referral summary received is or can be properly matched to the correct patient. (B) *Data incorporation*. Electronically incorporate the following data expressed according to the specified standard(s): (1) *Medications*. At a minimum, RxNorm, a standardized nomenclature for clinical drugs produced by the United States National Library of Medicine, August 6, 2012 Release (2) *Problems*. At a minimum, HTSDO SNOMED CT® International Release July 2012 and US Extension to SNOMED CT® March 2012 Release; (3) *Medication allergies*. At a minimum, RxNorm, a standardized nomenclature for clinical drugs produced by the United States National Library of Medicine, August 6, 2012 Release. (C) *Section views*. Extract and allow for individual display each additional section or sections (and the accompanying document header information) that were included in a transition of care/referral summary received and formatted in accordance with HL7 Implementation Guide for CDA® Release 2: IHE Health Story Consolidation (the use of the "unstructured document" document-level template is prohibited).

2014 Edition Criteria with Corresponding Standards and Implementation Specifications	
Care Coordination: Transitions of care - create and transmit transition of care/referral summaries	*Create*. Enable a user to electronically create a transition of care/referral summary formatted according to HL7 Implementation Guide for CDA® Release 2: IHE Health Story Consolidation (the use of the "unstructured document" document-level template is prohibited) that includes, at a minimum, the Common MU Data Set and the following data expressed, where applicable, according to the specified standard(s): (A) *Encounter diagnoses*. The code set specified at 45 CFR 162.1002(c)(2) for the indicated conditions; or, at a minimum, IHTSDO SNOMED CT® International Release July 2012 and US Extension to SNOMED CT® March 2012 Release; (B) *Immunizations*. HL7 Standard Code Set CVX -- Vaccines Administered, updates through July 11, 2012; (C) Cognitive status; (D) Functional status; and (E) The reason for referral; and referring or transitioning provider's name and office contact information. *Transmit*. Enable a user to electronically transmit the transition of care/referral summary created in paragraph (b)(2)(i) of this section in accordance with: (A) ONC Applicability Statement for Secure Health Transport. (B) Optional. ONC Applicability Statement for Secure Health Transport and ONC XDR and XDM for Direct Messaging Specification. (C) Optional. ONC XDR and XDM for Direct Messaging Specification and ONC Transport and Security Specification.w
Care Coordination: Electronic Prescribing	Enable a user to electronically create prescriptions and prescription-related information for electronic transmission in accordance with: (i) NCPDP SCRIPT Standard, Implementation Guide, Version 10.6; and (ii) At a minimum, RxNorm, a standardized nomenclature for clinical drugs produced by the United States National Library of Medicine, August 6, 2012 Release.
Care Coordination: Clinical information reconciliation	Enable a user to electronically reconcile the data that represent a patient's active medication, problem, and medication allergy list as follows. For each list type: (i) Electronically and simultaneously display (i.e., in a single view) the data from at least two list sources in a manner that allows a user to view the data and their attributes, which must include, at a minimum, the source and last modification date. (ii) Enable a user to create a single reconciled list of medications, medication allergies, or problems. (iii) Enable a user to review and validate the accuracy of a final set of data and, upon a user's confirmation, automatically update the list.
Care Coordination: Incorporate laboratory tests and values/results	*Receive results*. (1) Electronically receive and incorporate clinical laboratory tests and values/results in accordance with HL7 Version 2.5.1 Implementation Guide: S&I Framework Lab Results Interface and, at a minimum, Logical Observation Identifiers Names and Codes (LOINC®) Database version 2.40, a universal code system for identifying laboratory and clinical observations produced by the Regenstrief Institute, Inc. (2) Electronically display the tests and values/results received in human readable format.
Care Coordination: Data portability	Enable a user to electronically create a set of export summaries for all patients in EHR technology formatted according to HL7 Implementation Guide for CDA® Release 2: IHE Health Story Consolidation (the use of the "unstructured document" document-level template is prohibited) that represents the most current clinical information about each patient and includes, at a minimum, the Common MU Data Set and the following data expressed, where applicable, according to the specified standard(s): (i) *Encounter diagnoses*. The code set specified at 45 CFR 162.1002(c)(2) for the indicated conditions, or, at a minimum, the IHTSDO SNOMED CT® International Release July 2012 and US Extension to SNOMED CT® March 2012 Release; (ii) *Immunizations*. HL7 Standard Code Set CVX -- Vaccines Administered, updates through July 11, 2012; (iii) Cognitive status; (iv) Functional status; and (v) The reason for referral; and referring or transitioning provider's name and office contact information.

2014 Edition Criteria with Corresponding Standards and Implementation Specifications	
CQMs: Clinical quality measures - capture and export	*Capture*. For each and every CQM for which the EHR technology is presented for certification, EHR technology must be able to electronically record all of the data identified in the Data Element Catalog that would be necessary to calculate each CQM. Data required for CQM exclusions or exceptions must be codified entries, which may include specific terms as defined by each CQM, or may include codified expressions of "patient reason," "system reason," or "medical reason." *Export*. EHR technology must be able to electronically export a data file formatted in accordance with HL7 Implementation Guide for CDA® Release 2: Quality Reporting Document Architecture that includes all of the data captured for each and every CQM to which EHR technology was certified.
CQMs: Clinical quality measures – import and calculate	*Import*. EHR technology must be able to electronically import a data file formatted in accordance with HL7 Implementation Guide for CDA® Release 2: Quality Reporting Document Architecture and use such data to perform the calculation. EHR technology presented for certification to all three of the certification criteria for CQMs is not required to satisfy the *import* requirement of this criterion. *Calculate*. EHR technology must be able to electronically calculate each and every clinical quality measure for which it is presented for certification.
CQMs: Clinical quality measures – electronic submission	Enable a user to electronically create a data file for transmission of clinical quality measurement data: (i) in accordance with HL7 Implementation Guide for CDA® Release 2: Quality Reporting Document Architecture and Quality Reporting Document Architecture Category III, Implementation Guide for CDA Release 2; and, (ii) that can be electronically accepted by CMS.
Privacy and security: Authentication, access control, and authorization	(i) Verify against a unique identifier(s) (e.g., username or number) that a person seeking access to electronic health information is the one claimed; and (ii) Establish the type of access to electronic health information a user is permitted based on the unique identifier(s) provided in the above paragraph, and the actions the user is permitted to perform with the EHR technology.

2014 Edition Criteria with Corresponding Standards and Implementation Specifications	
Privacy and security: Auditable events and tamper-resistance.	*Record actions*. EHR technology must be able to: (A) Record actions related to electronic health information (i) the audit log must record the information specified in sections 7.2 through 7.4, 7.6, and 7.7 of ASTM E2147-01(Reapproved 2009) when EHR technology is in use. (ii) The date and time must be recorded in accordance with (RFC 1305) Network Time Protocol or (RFC 5905) Network Time Protocol Version 4; (B) Record the audit log status (enabled or disabled) in accordance with sections 7.2 and 7.4 of ASTM E2147-01(Reapproved 2009) when the audit log status is changed, and the date and time each action occurs in accordance with (RFC 1305) Network Time Protocol or (RFC 5905) Network Time Protocol Version 4, unless it cannot be disabled by any user; and (C) Record the encryption status (enabled or disabled) of electronic health information locally stored on end-user devices by EHR technology in accordance with sections 7.2 and 7.4 of ASTM E2147-01(Reapproved 2009) when the encryption status of electronic health information locally stored by EHR technology on end-user devices is changed; the date and time each action occurs in accordance with (RFC 1305) Network Time Protocol or (RFC 5905) Network Time Protocol Version 4 unless the EHR technology prevents electronic health information from being locally stored on end-user devices. *Default setting*. EHR technology must be set by default to perform the capabilities specified in (A) of the above paragraph and, where applicable, (B) or (C), or both (B) and (C). *When disabling the audit log is permitted*. For each capability specified in the first paragraph that EHR technology permits to be disabled, the ability to do so must be restricted to a limited set of identified users. *Audit log protection*. Actions and statuses recorded in accordance with the first paragraph must not be capable of being changed, overwritten, or deleted by the EHR technology. *Detection*. EHR technology must be able to detect whether the audit log has been altered.
Privacy and security: Audit report(s)	Enable a user to create an audit report for a specific time period and to sort entries in the audit log according to each of the data specified in the standards: *Record actions related to electronic health information, audit log status, and encryption of end-user devices*. (1) (i) the audit log must record the information specified in sections 7.2 through 7.4, 7.6, and 7.7 of ASTM E2147-01(Reapproved 2009) when EHR technology is in use. (ii) The date and time must be recorded in accordance with (RFC 1305) Network Time Protocol or (RFC 5905) Network Time Protocol Version 4. (2)(i) The audit log must record the information specified in sections 7.2 and 7.4 of ASTM E2147-01(Reapproved 2009) when the audit log status is changed. (ii) The date and time each action occurs in accordance with (RFC 1305) Network Time Protocol or (RFC 5905) Network Time Protocol Version 4. (3) The audit log must record the information specified in sections 7.2 and 7.4 of ASTM E2147-01(Reapproved 2009) when the encryption status of electronic health information locally stored by EHR technology on end-user devices is changed. The date and time each action occurs in accordance with (RFC 1305) Network Time Protocol or (RFC 5905) Network Time Protocol Version 4.

2014 Edition Criteria with Corresponding Standards and Implementation Specifications	
Privacy and security: Amendments	Enable a user to electronically select the record affected by a patient's request for amendment and perform these capabilities: *Accepted amendment*. For an accepted amendment, append the amendment to the affected record or include a link that indicates the amendment's location. *Denied amendment*. For a denied amendment, at a minimum, append the request and denial of the request to the affected record or include a link that indicates this information's location.
Privacy and security: Automatic log-off	Prevent a user from gaining further access to an electronic session after a predetermined time of inactivity.
Privacy and security: Emergency access.	Permit an identified set of users to access electronic health information during an emergency.
Privacy and security: End-user device encryption	One of the following paragraphs must be satisfied: EHR technology that is designed to locally store electronic health information on end-user devices must encrypt the electronic health information stored on such devices after use of EHR technology on those devices stops. (A) Electronic health information that is stored must be encrypted in accordance with 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. (B) Default setting. EHR technology must be set by default to perform this capability and, unless this configuration cannot be disabled by any user, the ability to change the configuration must be restricted to a limited set of identified users. EHR technology is designed to prevent electronic health information from being locally stored on end-user devices after use of EHR technology on those devices stops.
Privacy and security: Integrity	Create a message digest in accordance with 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. Verify in accordance with the above standard upon receipt of electronically exchanged health information that such information has not been altered.
Privacy and security: Optional - accounting of disclosures	Record disclosures made for treatment, payment, and health care operations in accordance with the standard for *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.

2014 Edition Criteria with Corresponding Standards and Implementation Specifications	
Patient engagement: View, download, and transmit to 3rd party	*EHR technology must provide patients (and their authorized representatives) with an online means to view, download, and transmit to a 3rd party the data specified below. Access to these capabilities must be through a secure channel that ensures all content is encrypted and integrity-protected in accordance with any encryption and hashing algorithm identified by the National Institute of Standards and Technology (NIST) as an approved security function in Annex A of the FIPS Publication 140-2*. *(A)View*. Electronically view in accordance Web Content Accessibility Guidelines (WCAG) 2.0, Level A Conformance, at a minimum, the following data: (1) The Common MU Data Set (which should be in their English (i.e., non-coded) representation if they associate with a vocabulary/code set). (2) Provider's name and office contact information. *(B) Download*. (1) Electronically download an ambulatory summary in human readable format or formatted according to HL7 Implementation Guide for CDA® Release 2: IHE Health Story Consolidation (the use of the "unstructured document" document-level template is prohibited) that includes, at a minimum, the following data (which, for the human readable version, should be in their English representation if they associate with a vocabulary/code set): All of the data specified in the Common MU Data Set and the provider's name and office contact information. *(C) Transmit to a third party*. (1) Electronically transmit the ambulatory summary created in the above paragraph in accordance with ONC Applicability Statement for Secure Health Transport. *Activity history log.* (A) When electronic health information is viewed, downloaded, or transmitted to a third-party using the above capabilities, the following information must be recorded and made accessible to the patient: (1) The action(s) (i.e., view, download, transmission) that occurred; (2) The date and time each action occurred in accordance with (RFC 1305) Network Time Protocol or (RFC 5905) Network Time Protocol Version 4; and (3) The user who took the action. (B) EHR technology presented for certification may demonstrate compliance with (A) in this paragraph if it is also certified to the "auditable events and tamper-resistance" certification criterion and the information required to be recorded in (A) of this paragraph is accessible by the patient.
Patient engagement: Clinical summary	*Create*. Enable a user to create a clinical summary for a patient in human readable format and formatted according to HL7 Implementation Guide for CDA® Release 2: IHE Health Story Consolidation (the use of the "unstructured document" document-level template is prohibited). *Customization*. Enable a user to customize the data included in the clinical summary. *Minimum data from which to select*. EHR technology must permit a user to select, at a minimum, the following data when creating a clinical summary: (A) Common MU Data Set (which, for the human readable version, should be in their English representation if they associate with a vocabulary/code set) (B) The provider's name and office contact information; date and location of visit; reason for visit; immunizations and/or medications administered during the visit; diagnostic tests pending; clinical instructions; future appointments; referrals to other providers; future scheduled tests; and recommended patient decision aids.

2014 Edition Criteria with Corresponding Standards and Implementation Specifications	
Patient engagement: Secure messaging	Enable a user to electronically send messages to, and receive messages from, a patient in a manner that ensures: (i) Both the patient (or authorized representative) and EHR technology user are authenticated; and, (ii) The message content is encrypted and integrity-protected in accordance with any encryption and hashing algorithm identified by the National Institute of Standards and Technology (NIST) as an approved security function in Annex A of the FIPS Publication 140-2.
Public health: Immunization information	Enable a user to electronically record, change, and access immunization information.
Public health: Transmission to immunization registries	EHR technology must be able to electronically create immunization information for electronic transmission in accordance with: (i) HL7 2.5.1 and HL7 2.5.1 Implementation Guide for Immunization Messaging Release 1.4 and (ii) At a minimum, HL7 Standard Code Set CVX -- Vaccines Administered, updates through July 11, 2012.
Public health: Transmission to public health agencies - syndromic surveillance	EHR technology must be able to electronically create syndrome-based public health surveillance information for electronic transmission in accordance with: (A) HL7 2.5.1. (B) Optional. HL7 2.5.1 and PHIN Messaging Guide for Syndromic Surveillance and Conformance Clarification for EHR Certification of Electronic Syndromic Surveillance, Addendum to PHIN Messaging Guide for Syndromic Surveillance.
(Optional) Public health: Cancer case information	Enable a user to electronically record, change, and access cancer case information.
(Optional) Public health: Transmission to cancer registries	EHR technology must be able to electronically create cancer case information for electronic transmission in accordance with: (i) HL7 Clinical Document Architecture (CDA), Release 2.0, Normative Edition and Implementation Guide for Ambulatory Healthcare Provider Reporting to Central Cancer Registries, HL7 Clinical Document Architecture (CDA) (ii) At a minimum, IHTSDO SNOMED CT® International Release July 2012 and US Extension to SNOMED CT® March 2012 Release and Logical Observation Identifiers Names and Codes (LOINC®) Database version 2.40, a universal code system for identifying laboratory and clinical observations produced by the Regenstrief Institute, Inc.
Utilization: Automated numerator recording	For each meaningful use objective with a percentage-based measure, EHR technology must be able to create a report or file that enables a user to review the patients or actions that would make the patient or action eligible to be included in the measure's numerator. The information in the report or file created must be of sufficient detail such that it enables a user to match those patients or actions to meet the measure's denominator limitations when necessary to generate an accurate percentage.
Utilization: Automated measure calculation	For each meaningful use objective with a percentage-based measure that is supported by a capability included in an EHR technology, electronically record the numerator and denominator and create a report including the numerator, denominator, and resulting percentage associated with each applicable meaningful use measure.
Utilization: Safety-enhanced design	User-centered design processes must be applied to each capability an EHR technology includes that is specified in the following certification criteria: CPOE, drug-drug/drug-allergy interaction checks, medication list, medication allergy list, CDS, eRx, and clinical information reconciliation.

2014 Edition Criteria with Corresponding Standards and Implementation Specifications	
Utilization: Quality management system	For each capability that an EHR technology includes and for which that capability's certification is sought, the use of a Quality Management System (QMS) in the development, testing, implementation and maintenance of that capability must be identified. If a single QMS was used for applicable capabilities, it would only need to be identified once. If different QMS were applied to specific capabilities, each QMS applied would need to be identified. This would include the application of a QMS to some capabilities and none to others. If no QMS was applied to all applicable capabilities such a response is acceptable to satisfy this certification criterion.

Common MU Data Set

In several of the above certification criteria dealing with summaries, the term "Common MU Data Set" is sometimes used. This term means (requisite standards for each data element are highlighted in yellow):

1. Patient name
2. Sex
3. Date of Birth
4. Race - The Office of Management and Budget Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity, Statistical Policy Directive No. 15, as revised, October 30, 1997 (see "Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity," available at http://www.whitehouse.gov/omb/fedreg_1997standards)
5. Ethnicity - The Office of Management and Budget Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity, Statistical Policy Directive No. 15, as revised, October 30, 1997 (see "Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity," available at http://www.whitehouse.gov/omb/fedreg_1997standards)
6. Preferred language - As specified by the Library of Congress, ISO 639-2 alpha-3 codes limited to those that also have a corresponding alpha-2 code in ISO 639-1
7. Smoking status - Smoking status must be coded in one of the following SNOMED CT® codes: (1) Current every day smoker. 449868002; (2) Current some day smoker. 428041000124106; (3) Former smoker. 8517006; (4) Never smoker. 266919005; (5) Smoker, current status unknown. 77176002; (6) Unknown if ever smoked. 266927001; (7) Heavy tobacco smoker. 428071000124103; (8) Light tobacco smoker. 428061000124105
8. Problems – At a minimum, IHTSDO SNOMED CT® International Release July 2012 and US Extension to SNOMED CT® March 2012 Release
9. Medications – At a minimum, RxNorm, a standardized nomenclature for clinical drugs produced by the United States National Library of Medicine, August 6, 2012 Release
10. Medication allergies – At a minimum, RxNorm, a standardized nomenclature for clinical drugs produced by the United States National Library of Medicine, August 6, 2012 Release
11. Laboratory test(s) – At a minimum, Logical Observation Identifiers Names and Codes (LOINC®) Database version 2.40, a universal code system for identifying laboratory and clinical observations produced by the Regenstrief Institute, Inc.
12. Laboratory value(s)/results(s)
13. Vital signs – height, weight, blood pressure, BMI
14. Care plan field(s), including goals and instructions.

15. Procedures – (i) At a minimum, IHTSDO SNOMED CT® International Release July 2012 and US Extension to SNOMED CT® March 2012 Release and the code set specified at 45 CFR 162.1002(a)(5). (ii) Optional. The code set specified at 45 CFR 162.1002(a)(4). (iii) Optional. The code set specified at 45 CFR 162.1002(c)(3) for the indicated procedures or other actions taken.
16. Care team member(s)

Gap Certification
Products that were previously certified to the 2011 Edition certification criteria can benefit from the concept of "gap certification" in which test results from the original certification process can be used to certify for unchanged 2014 Edition criteria. These products will need to be tested and certified for any new and revised criteria in the 2014 Edition.

The 2014 Edition certification criteria relevant to EPs that are unchanged from 2011 Edition criteria are: medication list, medication allergy list, immunization information, authentication/access control/authorization (for the previously separate authentication and access control), emergency access, automatic logoff, integrity, accounting of disclosures (optional), and CPOE.

Federal Resources
- CMS
- ONC

ACR Resources
- ACR Meaningful Use Resources
- ACR summary of July 2010 final rules

Contact
For additional questions about this summary or the program in general, please contact:

Michael Peters
Director, Regulatory and Legislative Affairs
Government Relations Department
American College of Radiology
Washington, DC location
mpeters@acr.org
202.223.1670