"Meaningful Use"
(Including HIPAA/HITECH)

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Speaker

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Orientation to the American Recovery and Reinvestment Act (ARRA) of 2009

Division A: Appropriations Provisions

Title VII: Dept. Labor, HHS, & Education (*appropriations*)

Title XIII: Health Information Technology for Economic and Clinical Health (**HITECH**) Act

- A: Promotion of HIT (*ONC*)
- B: Testing of HIT
- C: Grants and Loans Funding
- D: Privacy

Division B: Tax, Unemployment, Health, State Fiscal Relief, and Other Provisions

Title IV: Medicare and Medicaid HIT (***incentives***)

To track events:
http://healthit.hhs.gov/

Funding from ARRA/HITECH (under ONC) for HIT Infrastructure

- HIT architecture that supports nationwide electronic exchange and use of health information in a secure, private, and accurate manner
- Development and adoption of certified EHRs for providers not eligible for other support
- Training on and dissemination of best practices to integrate HIT, including EHR, into a provider's delivery of care
- Infrastructure and tools for telemedicine
- Promotion of interoperability of clinical data repositories or registries
- Promotion of technologies that enhance protection of health information
- Improvement and expansion of uses of HIT by public health departments

"Meaningful Use" of EHR Technology

ARRA "Meaningful Use" Incentives

- Meaningful use of EHR: eligible professionals and hospitals demonstrate use of certified EHR technology:
  - In a meaningful manner, which includes use of e-prescribing as determined to be appropriate by the Secretary
  - EHR technology provides exchange of information to improve quality of health care, such as promoting care coordination
  - Reporting of clinical quality measures and other measures selected by Secretary. Measures may become more stringent; however, HHS may not require electronic reporting unless there is the capacity to accept data, which may be on a pilot basis

ARRA Definitions: Certified EHR Technology

(1) A **Complete EHR** that meets the requirements included in the definition of a Qualified EHR and has been tested and certified in accordance with certification program established by the National Coordinator as having met all applicable certification criteria adopted by the Secretary; or

(2) A combination of **EHR Modules** in which each constituent EHR Module of the combination has been tested and certified in accordance with certification program established by the National Coordinator as having met all applicable certification criteria adopted by the Secretary, and the resultant combination also meets the requirements included in the definition of a Qualified EHR

ARRA Definitions: Qualified EHR

"… The term 'qualified electronic health record' means an electronic record of health-related information on an individual that—

(A) includes patient demographic and clinical health information, such as medical history and problem lists; and

(B) has the capacity—

(i) to provide clinical decision support;
(ii) to support physician order entry;
(iii) to capture and query information relevant to health care quality; and
(iv) to exchange electronic health information with, and integrate such information from other sources."

Three Regulations from ARRA

- **Temporary Certification Program for Health Information Technology**
  - Final Rule, June 24, 2010
  - Process for organizations to test and certify HIT until permanent program is established
- **Health Information Technology: Initial Set of Standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology**
  - Final Rule, July 28, 2010
  - Standards, implementation specifications, and criteria for certification of EHR technology
- **Standards for Electronic Health Record Technology Incentive Program ("M.U.")**
  - Final Rule, July 28, 2010
  - Incentive payments for eligible professionals (EPs), eligible hospitals and critical access hospitals (CAHs) participating in Medicare and Medicaid programs

Temporary Certification Program for Health Information Technology

EHR Certification Timetable

July 1, 2010	Applications submitted to ONC
July/Aug 2010	Applications reviewed; list of accepted "Authorized Testing and Certification Bodies" (ATCBs) issued
Aug/Sep 2010	ATCBs authorized to test and certify EHR technology
Fall 2010	Certified products anticipated to be available Certified Application & Products List (CAPL) posted on ONC website. *This will provide information on what existing applications/products have been certified in order for organizations to identify and fill gaps where a combination of modules are needed for a certified EHR*
Dec 31, 2011	Temporary certification program eliminated, with potential extension as necessary *Permanent certification program will separate testing and certification, introduce accreditation requirements, and include potential for certification of specialty EHRs. It is anticipated that many ATCBs will become authorized certification bodies (ACBs)*

ONC-ATCBs

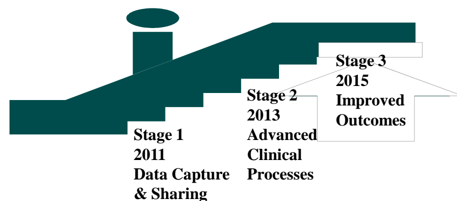
- **Certification Commission for Health Information Technology**, was the only government recognized certification body for EHRs between 2006 and 2009. On August 30, 2010, CCHIT was approved by HHS as an ONC-ATCB. It will offer certification for:
  - **Complete EHR** products that meet all of the certification criteria for M.U. incentives
  - **Modular EH**R products that meet one or more – but not all – of the M.U. criteria.
  - Tailored ARRA certification program for hospitals that already have their own EHRs based on self-developed products or "off-the-shelf" products that have been customized
  - CCHIT currently offers two complementary but completely separate certification programs:
    - In addition to HHS certification, CCHIT will continue to offer its **CCHIT Certified®** program for Ambulatory and Inpatient EHR products that exceed the HHS/ONC criteria and are designed for hospitals and physician practices that are looking for assurance of more robust, integrated EHR products to support the unique needs of its clinicians and patients.
    - CCHIT also offers CCHIT Certified® programs for EHRs used in Cardiovascular Medicine, Child Health, Emergency Departments, Behavioral Health, Dermatology and Long-Term and Post-Acute Care. In addition, a certification program for EHRs used in Clinical Research will be available in fall 2010, and programs in Women's Health and Oncology are in development for launch in spring 2011.
- **Drummond Group, Inc. (DGI)** is an interoperability test lab offering global testing services through the product life cycle. Auditing, QA, conformance testing, custom software test lab services, software certification, web services testing, and consulting are offered in addition to interoperability testing. Founded in 1999, DGI has tested over a thousand international software products used in vertical industries such as automotive, consumer product goods, healthcare, energy, financial services, government, petroleum, pharmaceutical and retail. It will offer certification for:
  - **Complete EHR** products that meet all of the certification criteria for M.U. incentives
  - **Modular EHR** products that meet one or more – but not all – of the M.U. criteria
  - Its EHR certification program will offer services for both commercial and open source software

Certification of Minimum Capabilities

- Certification criteria represent the minimum capabilities EHR technology needs to include and have properly implemented in order to achieve certification
  - Other capabilities important to a practice or hospital may not be addressed, such as practice management system (practice), electronic medication administration record (hospital)
- Certification criteria do not preclude Complete EHR developers from including additional capabilities that are not required for purposes of certification
  - Yet these capabilities may still not address usability, workflow, process redesign, or specialty functions

Health Information Technology: Initial Set of Standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology

Initial Standards and Criteria



- **Standards** are protocols that enable meaningful and secure exchange of information
- **Implementation specifications** describe how standards are used
- **Certification criteria** refer to the properties EHR technology must posses to be certified

Content Exchange Standards

- Patient Summary Record
  - HL7 Continuity of Care Document (CCD), or
  - ASTM Continuity of Care Record (CCR)
- E-Prescribing
  - NCPDP SCRIPT
- Submission of Lab Results
  - HL7 2.5.1
- Submission for Surveillance and to Immunization Registries
  - HL7 2.3.1, or
  - HL7 2.5.1
- Quality reporting
  - CMS Physician Quality Reporting Initiative (PQRI) 2009 Registry XML Specification

- Health Level Seven HL7) is the predominant organization that establishes standards for protocols used to exchange data among disparate health information systems (e.g., EHR and Laboratory Information System)
- National Council for Prescription Drug Program (NCPDP) is the predominant organization that establishes standards for protocols used to exchange retail pharmacy eligibility and claims data as well as prescription data

Patient Summary Record Standards

- ASTM CCR is a core data set that supports referrals, transfers, and other uses by different providers
- HL7 CDA is a document markup specification providing a multi-level architecture accommodating varying degrees of markup granularity
- CCR + CDA = CCD may be incorporated into a data exchange by reference to a PDF (in HL7 V2.x) or embedded as an XML format (in HL7 V3)

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Vocabulary Standards

- Problems
  - ICD, or
  - SNOMED
- Procedures
  - PCS/CPT as applicable
- Lab results within electronic transaction from a lab
  - LOINC
- Medications
  - Any source vocabulary that is included in RxNorm:
    - First Databank
    - Micromedex
    - MediSpan
    - Gold Standard Alchemy
    - Multum
- Immunizations
  - HL7 Standard Code Set CVX – Vaccines Administered
- Race and Ethnicity
  - OMB, Statistical Policy Directive No. 15, October 1997

ICD/PCS and CPT

- International Classification of Diseases (ICD) is an international standard diagnostic classification for clinical, epidemiological, and many health management purposes
- Across the world ICD is used to classify diseases and other health problems recorded on death certificates as the basis for national mortality and morbidity statistics by WHO Member States
- In the U.S., ICD-9-CM, the ninth edition of a clinical modification (CM) created by the U.S. is also used in reimbursement functions
- The U.S. will adopt ICD-10-CM in October 2013
- Because the international version of ICD does not include a Procedure Classification System (PCS), this has been developed by the U.S.

- The Current Procedural Terminology (CPT®) is developed by the American Medical Association (AMA)
- It is used to report medical procedures and services under public and private health insurance programs

SNOMED-CT

- SNOMED CT (formerly **S**ystematized **No**menclature of **Med**icine-**C**linical **T**erms) is considered to be the most comprehensive, multilingual clinical health care terminology in the world, with more than 311,000 concepts with unique meanings and formal logic-based definitions organized into hierarchies.
- Example of application of SNOMED to a clinical decision support tool offering an alert to a possible hospital acquired pneumonia:

	SNOMED CT Description	SNOMED CT Identifier
Patient findings: Chest X-ray showing new infiltrate, immunocompromised host with heart failure, low-grade fever and elevated WBC, positive sputum culture	Standard chest x-ray abnormal	261941010
	Radiologic infiltrate of lung	117330011
	Patient immunocompromised	1207202014
	Heart failure	139475013
	Low grade pyrexia	700491014
Automated notification: Possible hospital acquired pneumonia	Leukocytosis	189797013
	Positive culture finding sputum	317877011
	Nosocomial infectious disease	19168005
Patient treatment recommendation: Imipenem-cilastatin, 250 mg IV	Pneumonia	233604007
	Imipenem-cilastatin 250 mg IV	1209070019

SNOMED CT Hierarchies
- Clinical finding/disorder
- Procedure
- Observable entity
- Body Structure
- Organism
- Substance
- Pharmaceutical/biologic product
- Specimen
- Physical object
- Physical force
- Event
- Environments and geographic locations
- Social context
- Staging and scales
- Linkage concept
- Qualifier value
- Special concept
- Record Artifact

Other Vocabularies

- **Logical Observation Identifiers Names and Codes (LOINC)** was developed by the Regenstrief Institute, initially for the purpose of encoding laboratory data, and subsequently other types of observational data, including vital signs, history and physical exam information, etc.
- **RxNorm is** a standardized nomenclature for clinical drugs produced by the National Library of Medicine. It provides normalized names for clinical drugs and links its names to many of the drug vocabularies commonly used in pharmacy management and drug interaction software, By providing links between these vocabularies, RxNorm can mediate messages between systems not using the same software and vocabulary.

Vocabulary Mapping

- The ultimate goal of an EHR with respect to data is C.O.D.E.:
  - Capture clinically specific data
  - Once at the point of care and
  - Derive information there from for
  - Every other purpose.
- As standards are being adopted for EHRs, ICD or SNOMED are included as a means to standardize data for many purposes for which data are used in health care. However, neither ICD nor SNOMED are vocabularies that always reflect the language of the provider or patient. Rather, a combination of lay terms and general clinical terms may be used instead.
- The National Library of Medicine (NLM) has done extensive work on mapping a variety of health care vocabularies to SNOMED and among some other vocabularies, including some proprietary terminologies which may be more "user friendly," such as MEDCIN. So an important consideration in selecting an EHR may be to evaluate not only if the problem list is recorded in ICD or SNOMED, as required by the certification criteria, but whether mapping is available and desirable.

Data Protection Standards

- **Protection of Electronic Health Information Created, Maintained, and Exchanged**
  - Encryption and decryption
    - Any encryption algorithm identified by NIST as approved in FIPS 140-2
  - Record actions
    - Date, time, patient identification, and user identification must be recorded when electronic health information is created, modified, accessed, or deleted; an indication of which action(s) occurred and by whom must also be recorded
  - Verification that electronic health information has not been altered in transit
    - Hashing algorithm equal to or greater than SHA-1 identified by NIST in FIPS PUB 180-3
  - Record treatment, payment, and health care operations disclosures
    - 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 defined at 45 CFR 164.501 (HIPAA)

"Privacy" in ARRA/HITECH

- Modifications to the HIPAA Privacy, Security, and Enforcement Rules under HIPAA (Proposed Rule, July 14, 2010)
  - Business associate requirement to comply with provisions of Privacy & Security Rules
  - Strengthening of patient rights to access, minimum necessary, accounting for disclosures through EHRs, and restrictions in uses and disclosures of protected health information (PHI)
  - Tightening of controls on selling PHI, use of PHI for marketing and fund raising, and potentially impacting means to de-identify data
  - Enforcement of civil and criminal penalties applies to individuals and organizations
  - Increased civil monetary penalties
  - State Attorneys General given the authority to enforce the HIPAA Rules by bringing civil actions on behalf of State residents in court
- HHS Regional Office Privacy Advisors and Education on Health Information Privacy
- Delegation of Authority for Security Rule Enforcement from CMS to Office for Civil Rights (OCR) (August 4, 2009)
- Breach Notification
  - HHS Breach Notification for Unsecured PHI (IFR, August 24, 2009)
  - FTC Health Breach Notification (Final Rule: August 25, 2009; re: Personal Health Records)
  - Guidance Specifying the Technologies and Methodologies That Render PHI Unusable, Unreadable, or Indecipherable to Unauthorized Individuals for Purposes of the Breach Notification Requirements of ARRA/HITECH (RFI, April 27, 2009)

Medicare and Medicaid Incentive Program
Standards for Electronic Health Record Technology Incentive Program

Key Definitions

- **Reporting period** for Eligible Professional (EP):
  - For first payment year, any continuous 90-day period within a calendar year (CY),
  - except for Medicaid providers who first demonstrate M.U. in their second payment year;
  - thereafter calendar year
- **Reporting period for Eligible Hospital (EH) or Critical Access Hospital (CAH):**
  - For first payment year, any continuous 90-day period within a Federal fiscal year (FY);
  - thereafter, Federal fiscal year
- **Eligible professional for Medicare incentives**: MD or DO, DDS, DP, OD, DC
  - Hospital-based EP furnishes 90% or more of services in the year preceding the payment year in an inpatient hospital (Place of Service [POS] code 21) or emergency room (POS code 23) setting
  - Continuing Extension Act of 2010, April 15, 2010 excluded POS code 22 (outpatient setting)
- **Eligible hospital** is an "acute care hospital" or "children's hospital." For purposes of the Medicare incentives, this includes any hospital system with multiple facilities that has sought one CMS Certification Number (CCN) as one EH for purposes of the incentive. Critical access hospitals are also eligible for Medicare incentives (although with a different incentive structure)

Meaningful Use Criteria

HIT Policy Committee in original proposal for meaningful use criteria urged CMS to follow National Quality Forum (NQF) Health Outcomes Policy Priorities:

- **Improve quality, safety, efficiency, and reduce health disparities**
  - Provide access to comprehensive patient health data for patient's health care team
  - Use evidence-based order sets and CPO
  - Apply clinical decision support at the point of care
  - Generate lists of patients who need care and use them to reach out to patients
  - Report information for quality improvement and public reporting
- **Engage patients and their families in their health care**
  - Provide patients and families with timely access to data, knowledge, and tools to make informed decisions and to manage their health
- **Improve care coordination**
  - Exchange meaningful clinical information among professional health care team
- **Improve population and public health**
  - Communicate with public health agencies
- **Ensure adequate privacy and security protections for personal health information**
  - Ensure privacy and security protection for confidential information through operating policies and procedures, and technologies and compliance with applicable law
  - Provide transparency of data sharing to patient

M.U. Objectives and Measures: Stage 1 Criteria

- **Core Set**
  - All 15 (for EPs)/14 (for Hs) objectives and associated measures of the Core Set must be met, except where there are explicit *exclusions* for non-applicable objectives
- **Menu Set**
  - Five of 10 objectives of the participant's choice from the Menu Set must be met , except where there are explicit *exclusions* for non-applicable objectives
- **Measures:**
  - Yes/No (**Y/N**)
  - % (Numerator/Denominator)
    - Measures with a denominator of all unique patients (**all pts**) regardless of whether the patient's records are maintained using certified EHR technology
    - Measures with a denominator based on counting actions for patients whose records are maintained using certified **EHR** technology

CORE SET Stage 1

Objectives (Standards)	EP/H	Measures	Application
1. Use CPOE for medication orders directly entered by any licensed health care professional	Both	> 30% of pts w/one medication on **EHR** med list have ≥ 1 order entered via CPOE	❑CPOE ❑
2. Implement drug-drug and drug-allergy interaction checks	Both	Enabled (**Y/N**)	❑CPOE/eRx ❑CDS
3. Generate and transmit permissible prescription electronically (eRx) (NCPDP)	EP	>40% transmitted via **EHR** *Exclusion if <100 prescriptions written in reporting period*	❑ eRx
4. Record demographics: • Preferred language • Gender • Race • Ethnicity • Date of birth • Date/preliminary cause of death	 Both Both Both Both Both H	> 50% recorded as structured data for **all pts**	❑ PMS ❑ R-ADT ❑
5. Maintain up-to-date problem list of current and active diagnoses (ICD-9-CM or SNOMED)	Both	> 80% **all pts** have one entry or indication of no problems recorded as structured data	❑Problem List ❑ Mapping tools
6. Maintain active medication list (RxNorm)	Both	> 80% **all pts** have at least one entry recorded as structured data	❑ Med List ❑

CORE SET Stage 1, Continued

Objectives (Standards)	EP/H	Measures	Application
7. Maintain active medication allergy list	Both	> 80% **all pts** have at least one entry recorded as structured data	❑ Med List ❑
8. Record/chart changes in V/S: • Height, weight, blood pressure • Calculate and display BMI • Plot and display growth charts (for 2-20 y/o, including BMI)	Both	>50% pts age ≥ 2 y/o have height, weight, BP recorded as structured data in **EHR** *Exclusion if pts ht, wt, & BP have no relevance to scope of practice*	❑Vital signs ❑
9. Record smoking status ≥ 13 y/o	Both	>50% unique pts age ≥ 13 y/o recorded as structured data in **EHR** *Exclusion if no pts ≥ 13 y/o*	❑Social hx ❑
10. Implement one CDS rule relevant to specialty or high clinical priority, w/ability to track compliance w/rule	Both	Implement (**Y/N**) one CDS rule	❑CDSS ❑
11. Provide pts on request electronic copy (CCD or CCR) of: •Diagnostic test results •Problem list •Medication list •Medication allergy list •Discharge summary •Procedures	 Both Both Both Both H H	>50% of pts who request, within 3 business days from **EHR** *Exclusion if no pts request electronic copy during reporting period*	❑ CD, USB drive, PHR, pt portal

CORE SET Stage 1, Continued			
Objectives (Standards)	**EP/H**	**Measures**	**Application**
12. Provide pts electronic copy of discharge instructions	H	>50% of pts w/**EHR** who request *Exclusion if no pts request electronic copy during reporting period*	❑ CD, USB drive, PHR, pt portal
13. Provide clinical summaries (CCD or CCR) for each office visit	EP	>50% of all visits w/**EHR** w/in 3 business days *Exclusion if EP has no office visits*	❑ Pt portal, CD, USB drive, PHR
14. Ability to exchange key clinical information w/providers & pt authorized entities (CCD or CCR), e.g., • Problem list • Medication list • Medication allergies • Diagnostic test results	Both	At least one test of capacity (**Y/N**)	❑ HIE ❑
15. Protect electronic health information created or maintained by EHR through implementation of appropriate technical capabilities	Both	Conduct or review a security risk analysis per HIPAA and implement security updates as necessary and correct identified security deficiencies (**Y/N**)	
16. **Report clinical quality measures** (CQM) to CMS or State	Both	2011: Attest to aggregate numerator, denominator, exclusions	❑Report writer ❑

MENU SET Stage 1			
Objectives (Standards)	**EP/H**	**Measures**	**Application**
17. Implement drug-formulary checks	Both	Enabled (**Y/N**) with access to at least one internal or external formulary for reporting period	❑ eRX ❑ Pharmacy System ❑
18. Incorporate clinical lab test results (in +/- or numerical format) into EHR as structured data	Both	>40% of lab test results ordered w/**EHR** in reporting period *Exclusion if no lab tests in +/- or numerical format*	❑ LIS ❑
19. Generate lists of pts by specific conditions for QI, reduction of disparities, research, or outreach	Both	Generate at least one report (**Y/N**) listing pts with a specific condition	❑ Report writing ❑
20. Use EHR to identify pt-specific education resources and provide if appropriate	Both	> 10% of **all pts** provided pt-specific education resources	❑ Provider portal ❑
21. EP or H who receives pt from another care setting or encounter is relevant perform medication reconciliation	Both	>50% of transitions of care w/**EHR** *Exclusion if EP or H not recipient of transitions*	❑ CPOE ❑ Pharmacy system ❑ E-MAR
22. Capability to submit electronic syndromic surveillance data to public health & actual submission	Both	One test (**Y/N**) of capacity and follow up submission (unless no capacity) *Exclusion if does not collect reportable data on pts*	❑ Report writing ❑ Transaction ❑

MENU SET Stage 1, Continued			
Objectives (Standards)	**EP/H**	**Measures**	**Application**
23. EP or H who transitions pt to another care setting or refers pt to another provider provide summary of care record for each transition or referral	Both	>50% of transitions of care and referrals w/**EHR** *Exclusion if no transfer of care*	❑ Report writing ❑ CCD/CCR
24. Capability to submit electronic data to immunization registries or Immunization Information Systems and actual submission in accordance with applicable law and practice	Both	One test (**Y/N**) of capacity & follow up submission (unless no capacity) *Exclusion if immunizations not administered*	❑ Report writing ❑ Transaction ❑
25. Capability to submit electronic data on reportable lab results to public health and actual submission	H	One test (**Y/N**) of capacity and follow up submission *Exclusion if public health has no capacity to receive*	❑ Report writing ❑ Transaction ❑
26. Record advance directives for pts ≥ 65 y/o	H	>50% of pts status recorded in **EHR** *Exclusion if no pts ≥ 65 y/o*	❑ R-ADT ❑
27. Send reminders to pts per pt preference for preventive/follow up care	EP	>20% of pts ≥ 65 y/o, or ≤ 5 y/o sent via **EHR** reminder for reporting period *Exclusion if no pts in ages*	❑ Report writing
28. Provide pts timely electronic access to lab results, problem list, med list, and allergies within 4 business days of information being available	EP	>10% of **all pts** provided timely electronic access subject to discretion to withhold information	❑ Patient portal, PHR, CD, USB drive

Clinical Quality Measures (CQMs)

- National Quality Forum (NQF) endorsed measures are given preference
- CMS sought to avoid duplicative and redundant reporting, specifically between
  - Physician Quality Reporting Initiative (PQRI) for EPs
  - Reporting Hospital Quality Data for Annual Payment Update (RHQDAPU) for EHs and CAHs (aka, "Core Measures")
- Detailed electronic specifications of CQMs are displayed at: http://www.cms.gov/QualityMeasures/03_ElectronicSpecifications.asp#TopOfPage

Core CQMs for All EPs

- Core Measures
  - Hypertension: Blood pressure management
  - Preventive care and screening: Tobacco use assessment and cessation intervention
  - Adult weight screening and follow up
- Alternate Core Measures
  - Weight assessment and counseling for children and adolescents
  - Preventive care and screening: influenza immunizations for ≥50 y/o
  - Childhood immunization status
- An EP will not be excluded from reporting any core or alternate CQM because the measure does not apply to the EP's scope of practice or patient population.
  - The expectation is that the EHR will automatically report on each core CQM, and when one or more of the core measures has a denominator of zero then the alternate core measure(s) will be reported.
  - If all six CQMs have zeros for denominators, then the EP is still required to report on three additional CQMs of their choosing from the 44 measures in Table 6.

TABLE 6: Clinical Quality Measures for Submission by Medicare or Medicaid EPs for the 2011 and 2012 Payment Year[4]

CQM Topics for EPs

- Diabetes
- Heart Failure
- Coronary Artery Disease
- Influenza vaccination
- Pneumovax
- Childhood immunizations
- Cancer screening:
  - Breast
  - Colo-rectal
  - Cervical
- Cancer management:
  - Prostate
  - Breast
  - Colon
- Hypertension
- Anti-depressant medication management
- Primary open angle glaucoma
- Diabetic retinopathy
- Asthma
- Pharyngitis
- Smoking cessation
- BMI
- Ischemic vascular disease
- Alcohol and drug dependence
- Prenatal care
- Low back pain
- Chlamydia Screening

CQMs for Submission by EHs and CAHs for Payment Year 2011-2012

- Fifteen measures address:
  - Emergency Department Throughput
  - Stroke
  - Venous Thromboembolism (VTE)

Participation Requirements

- In first payment year, EP, EH, or CAH must submit in manner specified by CMS the following information:
  - Name
  - NPI
  - Business address and phone number
  - Such other information as specified
  - EP submit Taxpayer Identification Number (TIN), which may be EP's Social Security Number (SSN)
  - EH or CAH must submit CMS Certification Number (CCN) or Taxpayer Identification Number (TIN)
- EP must elect to participate in Medicare or Medicaid (in only one state), although may switch once for a payment year before 2015
- EPs are permitted to reassign their (entire) incentive payments to (only one of) their employer or entity with which they have contractual arrangement allowing employer or entity to bill and receive payment for EP's covered professional services

Demonstration of M.U. Criteria

- For CY or FY 2011: Attest, through a secure mechanism, in a manner specified by CMS (or for a Medicaid participant, by the State) that during the reporting period:
  - Used certified EHR technology, and specify technology used
  - Satisfied required objectives and associated measures
  - Specify EHR reporting period and provide result of each applicable measure for all patients seen (or admitted to inpatient or emergency department [POS 21 or 23] during EHR reporting period for which selected measure is applicable
  - Exceptions for Medicaid, where EHR has been adopted, implemented, or upgraded in first payment year, need not demonstrate meaningful use until second payment year
  - Keep documentation supporting demonstration for 6 years
- For CY or FY 2012 and subsequent years: Attest as above, except must report clinical quality information in manner specified by CMS or the State

M.U. Medicare Payments for EPs

Payment Year	Incentive subject to per EP cap of 75% of Medicare allowed charges in year
First year if 2011 or 2012 First year if before 2013	$18,000 $15,000
Second year	$12,000
Third year	$8,000
Fourth year	$4,000
Fifth year	$2,000
Succeeding payment years	$0
If health professional shortage area	Above increases by 10%
If EHR is adopted after 2014	$0
If EP not EHR user by 2015	99% if not subject to adjustment and not e-prescriber; 98% if subject to adjustment and not e-prescriber
If EP not EHR user by 2016	98% of reimbursement
If EP not EHR user by 2017	97% of reimbursement
Succeeding payment years	97% of reimbursement

If EHR software costs:
- Upfront per EP Year 1 $25,000
- X 18% support per year = $4,500
- X 4 years of support after Year 1 $18,000
- Total software costs $43,000
- Total Medicare incentive **$44,000**
- Hardware & implementation $10,000

M.U. Medicare Payments for Subsection D (PPS) Hospitals

Incentive Amount = [Initial Amount] x [Medicare Share] x [Transition Factor]

Initial Amount = $2,000,000 + [$200 per discharge for the 1,150th – 23,000th discharge]

Medicare Share = *Medicare/(Total*Charity Care) = [M/(T*C)]*

M = [# of Inpatient Bed Days for Part A Beneficiaries] + [# of Inpatient Bed Days for MA Beneficiaries]

T = [# of Total Inpatient Bed Days]

C = [Total Charges – Charges for Charity Care*]/[Total Charges]

*If data on charity care is not available, then the Secretary would use data on uncompensated care as a proxy. If the proxy data is not also available, then "C" would be equal to 1.

Consecutive Payment Year	Transition Factor
1	1
2	¾
3	½
4	¼

For a hospital with more than 23,000 acute care inpatient discharges, initial amount is capped at $6,370,200. Hospitals may also earn Medicaid incentives, which carry a similar payment structure

M.U. Medicaid Incentives

- States, at their option and with Federal financial participation [FFP], may provide incentive payments to Medicaid providers for adopting, implementing, or upgrading certified EHR technology or for meaningful use of such technology
- Definition of EPs is expanded
- To qualify, Medicaid patient volume threshold must be:

Entity	Minimum 90-day Medicaid Patient Volume Threshold	
Physicians	30%	Or the Medicaid EP practices predominantly in an FQHC or RHC - 30% "needy individual" patient volume threshold
Pediatricians	20%	
Dentists	30%	
Certified nurse midwives	30%	
Physician Assistants when practicing at an FQHC/RHC led by a physician assistant	30%	
Nurse Practitioner	30%	
Acute care hospital	10%	N/A
Children's hospital	N/A	N/A

M.U. Medicaid Payments for EPs

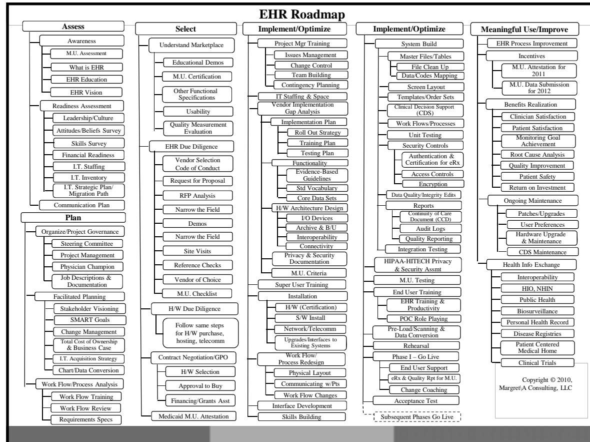
Calendar Year	Medicaid EPs who begin adoption in 2011	2012	2013	2014	2015	2016
2011	$21,250	------------	------------	------------	------------	------------
2012	$8,500	$21,250	------------	------------	------------	------------
2013	$8,500	* $8,500	$21,250	------------	------------	------------
2014	$8,500	$8,500	$8,500	$21,250	------------	------------
2015	$8,500	$8,500	$8,500	$8,500	$21,250	------------
2016	$8,500	$8,500	$8,500	$8,500	$8,500	$21,250
2017	------------	$8,500	$8,500	$8,500	$8,500	$8,500
2018	------------	------------	$8,500	$8,500	$8,500	$8,500
2019	------------	------------	------------	$8,500	$8,500	$8,500
2020	------------	------------	------------	------------	$8,500	$8,500
2021	------------	------------	------------	------------	------------	$8,500
TOTAL	$63,750	$63,750	$63,750	$63,750	$63,750	$63,750

- Payment may not exceed 85% of maximum threshold of $25,000, which equals $21,250.
- Medicaid EPs are responsible for remaining 15% of net average allowable cost of certified EHR technology, or $3,750 for first payment year.
- For a pediatrician who does not meet the 30% Medicaid patient volume, but meets 20%, the maximum payment in Year 1 is $14,167, and subsequent years $5,667; for a maximum of $42,500
- EP may not earn both Medicare and Medicaid incentives in one year, but may switch once

Preparing for M.U.

M.U. Assessment

- Convene a multi-stakeholder steering committee; establish goals for M.U.
- Use M.U. checklist to determine what your current IT can and cannot do; how well users are actually using EHR technology:
  - Functionality
  - Utilization: compliance with functionality/workflow and process workarounds, skills, infrastructure needs, outcomes
  - Standards compliance
  - Reporting capability
- Critically evaluate ability to address gaps within timeframe of incentives
  - Plot a migration path to address gaps
  - Identify timeframe in which you realistically can earn incentives
- Contact your vendor to:
  - Determine what upgrades/additional modules are available to fill gaps
  - Learn of plans for addressing product gaps and seeking certification
  - Where applicable, seek assurances that certification criteria will be met within agreed upon timeframe
- Prepare your organization to adopt the technology in a manner that enables meaningful use
  - Review and approve clinical quality measures for adoption
  - Redesign workflows and improve processes
  - Retrain, reinforce best practices
  - Institute continuous monitoring and follow up



HIMSS Analytics™ EHR Adoption

(N=5235)

Stage	**HOSPITAL** Cumulative Capabilities	2009 Final
7	Complete EMR, CCD, data warehousing; IP, ED, OP data exchange	0.7%
6	MD templates, full CDS, full R-PACS	1.6%
5	Closed loop medication administration	3.8%
4	CPOE, CDS	7.4%
3	RN documentation, D-D in Pharmacy, PACS	50.9%
2	Controlled vocabulary, CDR, CDS, may have document imaging, HIE	16.9%
1	Lab, Radiology, Pharmacy	7.2%
0	All 3 ancillaries not installed	11.5%

Creating "Meaningful Users"

- Recognize that implementation is not adoption; and that just "using" an EHR is not necessarily achieving optimal value
  - To produce measures of use through the EHR, it must be adopted by clinicians
  - To get true value from an EHR - all features must be regularly used, including continuous feedback mechanisms
- Engage clinicians early and often (in selection or optimization) in meaningful dialogue
  - Not meetings, but "curbside consultations"
  - Not directives, but collaborative decision-making
- Understand organizational culture and determine best change management strategies
  - Big bang works for some, not others
  - "Show one, do one" works for physicians; not necessarily for nurses
- Follow the 80/20 rule: EHR success is largely dependent on workflow and process, not hardware and software

Questions?

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Stratis Health is a nonprofit organization that leads collaboration and innovation in health care quality and safety, and serves as a trusted expert in facilitating improvement for people and communities.

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