Summary of the CMS NPRM for Meaningful Use – Stage Two

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Contents

Acronyms:

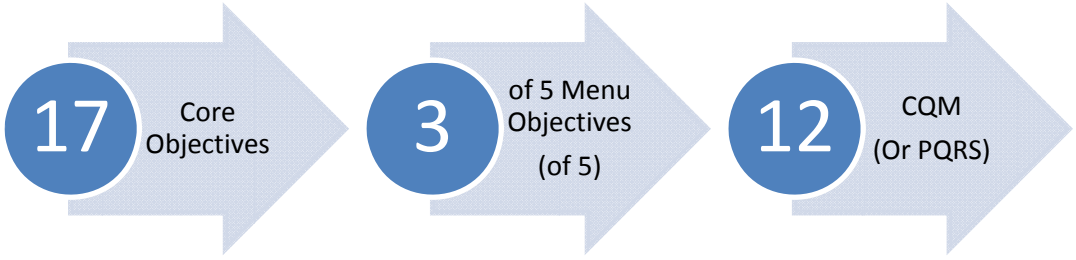
- CMS: Centers for Medicare and Medicaid Services
- CQM: Clinical Quality Measures
- EH/CAH: Eligible Hospital / Critical Access Hospital
- EHR: Electronic Health Record
- EPs: Eligible Providers
- MU: Meaningful Use
- ONC: Office of the National Coordinator

[1] Please note, the author was not involved in the development of this NPRM and does not represent the view of the FDA, HHS, or ORISE. She was enabled to participate through her ORISE fellowship, funded through an interagency agreement between the DOE and HHS/FDA. Any errors or omissions are solely the author's. She can be reached at jess.a.jacobs@gmail.com.

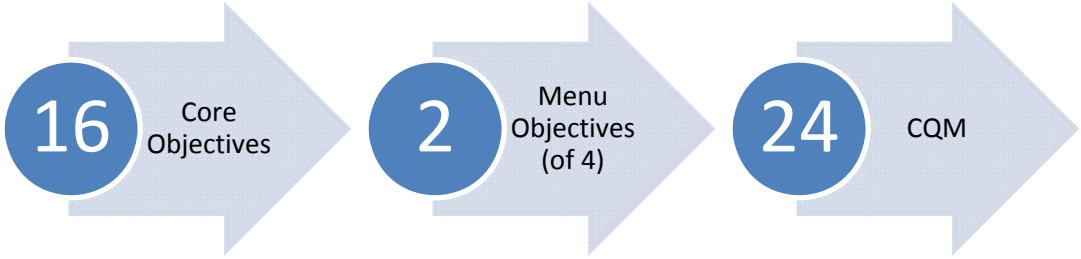
Summary

The 2009 American Recovery and Reinvestment Act (ARRA) authorized incentive payments for the Meaningful Use of Electronic Health Records (EHR) through Medicare/Medicaid. This document is a high-level summarization highlighting the differences between the objectives in the Notice of Proposed Rule Making for Stage Two[i] and the Stage One Final Rule.[ii] CMS is looking at several different methods of CQM reporting, and is "soliciting public feedback on several mechanisms for electronic CQM reporting, including aggregate-level electronic reporting group reporting options; and through existing quality reporting systems."

Eligible Providers (EPs):



Eligible Hospitals/Critical Access Hospitals (EH/CAHs):



This differs from Stage One:

- EPs had 15 Core Objectives, 5 of 10 Menu Objectives, and 6 CQM.
- EH/CAH had 14 Core Objectives, 5/10 Menu Objectives, and 15 CQM.

Timeline & Reporting

Reporting:

- EPs: Calendar Year; EH/CAH: Federal Fiscal Year
- 1st Year of MU (Stage One): Reporting Period is 90 days; Submission period is any time up to 2 months following the end of reporting period's year
- All other years of MU (All Stages): Reporting period, 1 year; Submission period, 2 months following the end of the reporting year

Timeline:

The table below shows which Stage of Meaningful Use providers will need to achieve to receive incentive payments based upon their starting year.

First Payment Year	Payment Year[iii]										
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
2011	1	1	1	2	2	3	3	TBD	TBD	TBD	TBD
2012		1	1	2	2	3	3	TBD	TBD	TBD	TBD
2013			1	1	2	2	3	3	TBD	TBD	TBD
2014				1	1	2	2	3	3	TBD	TBD
2015					1	1	2	2	3	3	TBD
2016						1	1	2	2	3	3
2017							1	1	2	2	3

Guidelines and Definitions:

- If a provider submits exclusion criteria for 1 of their menu sets, they are also attesting that they meet the exclusion criteria for all of the menu objectives that they did not select.
- A Certified EHR must be used for at least 50% of a provider's population over the entire reporting period. If the EP practices at multiple locations, this will include only patients seen at locations with certified EHRs.
- Denominators will be one of four things:
    - Unique patients seen by the EP (stratified by age or previous office visit) or EH/CAH (stratified by age).
    - Number of Orders (medication, labs, radiology, imaging, and procedures).
    - Visits/Bed Days:
        - EP Office Visits: any billable visit that includes 1. Concurrent care/transfer of care visits; 2. Consultant visits or 3. Prolonged physician service without direct, face to face patient contact.
        - EH/CAH Inpatient bed days: admission day and each of the following full 24-hour periods during which the patient is in the inpatient dept of the hospital.
- EPs will have latitude to include or not include telemedicine, minimal consulting services, and double counting (counting patient for both NP/PA and EP in same office).

Objectives

Changes to Stage One Criteria:

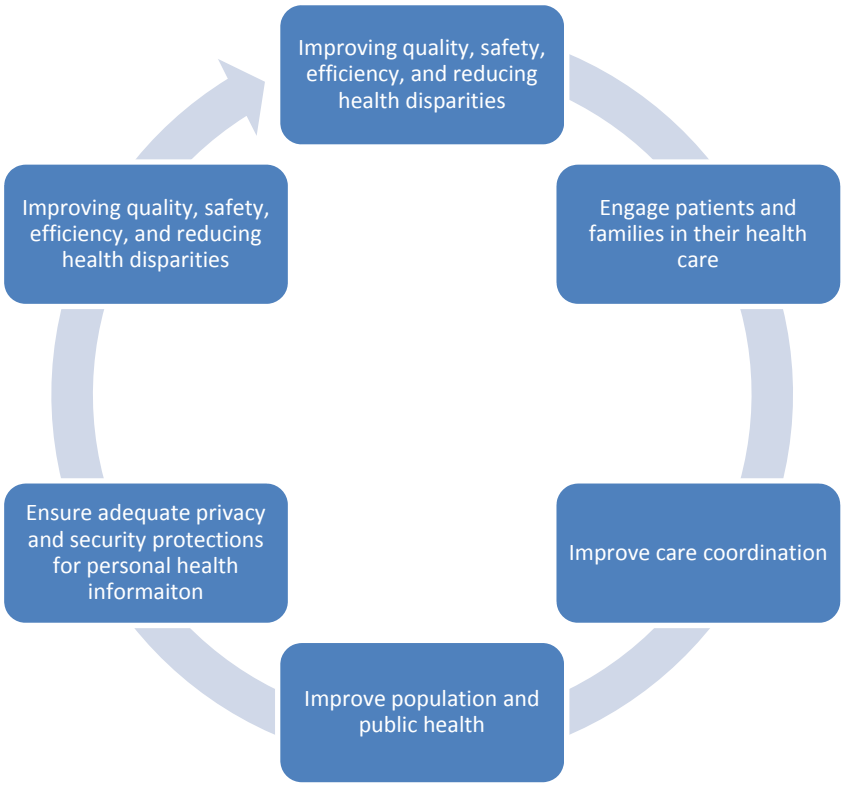
- This Stage Two rule alters some Stage One criteria – these changes will be optional in 2013 and required in 2014 (except otherwise noted):
  - CPOE: more than 30% of medication orders created by the EP/authorized providers at a EH/CAH are recorded using CPOE.
  - Vital Signs: addition of alternative age limitations (blood pressure will be only applicable for those over the age of three, while height/weight is for all ages) and exclusions (if all vitals, blood pressure, height/weight do not impact practice, provider does not have to record).
  - Exchange Key Clinical Data: Eliminated. Effective 2013.
  - Report CQM: Eliminated. Effective 2013.
  - Patient Electronic Communication: Same as Stage Two.
  - Public Health: Adds "except where prohibited" to language. Effective 2013.

Differences between Stage One and Stage Two Criteria:

- All Stage One Menu Set criteria are now in the core set, with the exception of two which will remain in the menu set: submitting syndromic surveillance data (EPs) and recording advanced directives (EH/CAH).
- State Flexibility: States will continue to be able to specify transmission of data and public health measures so long as it does not require EHR functionality above and beyond that which is included in the ONC EHR certification criteria.
- Other measures were Consolidated/Eliminated, including:

Consolidated/Eliminated Measures	
Consolidated/Eliminated Measure	*Logic*
Drug/Drug and Drug Allergy Checks	Combined into CDS.
Report CQM to CMS or States	Completed with QMS reporting section of MU and not necessary as an objective.
Drug-Formulary Checks	Combined into eRx
Maintain an up-to-date problem list of current and active diagnoses.	Combined into Transition of Care.
Maintain active medication list.	
Maintain active medication allergy list.	
Provide patients with an electronic copy of their health information.	Combined with objectives for online viewing and downloading
Provide patients with an electronic copy of their discharge instructions.	
Capability to exchange key clinical information.	Removed for Stage 2. Considering options for Stage 1. Actual use case is more beneficial.

Meaningful Use Objectives are aligned by these policy priorities:



Stage Two Core Objectives

Eligible Providers (EPs): 17 core objectives, and 3 of 5 menu objectives
Eligible Hospitals and Critical Access Hospitals (EH/CAH): 16 core, 2 of 4 menu objectives

Objectives	Measure	Stage 1	Exclusions	Exclusions/Notes
Policy Priority: Improving quality, safety, efficiency, and reducing health disparities				
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 to create the first record of the order.	Core, 60% *Numerator:* CPOE Orders *Denominator:* All orders	Core, 30%	Providers with less than 100 orders.	Must be used the first time the order is placed and before any action can be taken on the order. This measure has changed from "% of patients with one order in their EHRs"
EP Only: Generate, Compare to one drug formulary, and transmit permissible prescriptions electronically (eRx).	Core, 65% *Numerator:* eRx *Denominator:* all Rx	Core, 40%	Less than 100 Rx's written No electronically connected pharmacy within 25 miles	Does not include controlled substances for schedules II-V as many vendor offerings lack the required DEA specifications. Will revisit for MU III. In 2015 the MIPAA eRX program will be phased out for MU. MU Stage One "compare to a drug formulary" menu objective is rolled into this one.

Objectives	Measure	Stage 1	Exclusions	Exclusions/Notes
Record the following demographics as structured data • Preferred language • Gender • Race • Ethnicity • Date of birth • Date and preliminary cause of death in the event of mortality (EH/CAH Only)	Core, 80% *Numerator:* Patients with all demographic information recorded *Denominator:* All Patients	Core, 50%		If the patient refuses to give the information the provider can count that patient in the numerator.
Record and chart changes in vital signs as structured data: • Height • Weight • Blood pressure (age 3 and over) • Calculate and display BMI • Plot and display growth charts for patients 0-20 years, including BMI	Core, 80% *Numerator:* Patients with information recorded *Denominator:* All patients	Core, 50%	No patients over the age of 3 years old. The provider believes that height/weight or blood pressure have no relevance to their practice	
Record smoking status for patients 13 years old or older	Core, 80% *Numerator:* Patients with information recorded *Denominator:* All patients over 13 years	Core, 50%	No patients over 13 years old	

Objectives	Measure	Stage 1	Exclusions	Exclusions/Notes
Use clinical decision support to improve performance on high-priority health conditions	Core, Implement 5 CDS rules related to 5 or more clinical quality measures at relevant point. Implement Drug/Drug and Drug/Allergy Interaction Checks.	Core, 1 rule		Previously Drug/Drug and Drug/Allergy checks was a Core standalone objective.
Incorporate clinical lab-test results into Certified EHR Technology as structured data (either positive/negative or numerical).	Core, 55% *Numerator:* Lab Tests recorded as structured data *Denominator:* All Lab Tests	Menu, 50%	EPs who do not order labs that are in a yes/no or numerical format.	
Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research, or outreach.	Generate at least one report listing patients of the EP, eligible hospital or CAH with a specific condition.	Menu, 1 list		
EP Only: Use clinically relevant information to identify patients who should receive reminders for preventive/follow-up care.	Core, 10% *Numerator:* Number of patients in the denominator who received a reminder during the EHR reporting period *Denominator:* Unique patients who have an office visit with the EP in the 24 months prior to the EHR reporting period	Menu, 10%	No office visits in the 24 months before the reporting period	Different from stage one – requires the use of EHR to identify appropriate reminders instead of just sending reminders based on patient preference.

Objectives	Measure	Stage 1	Exclusions	Exclusions/Notes
EH/CAH Only: Automatically track medications from order to administration using assistive technologies in conjunction with an electronic medication administration record (eMAR).	Core, 10% eMAR is implemented and in use for the entire EHR reporting period in at least one ward/unit of the eligible hospital or CAH.	N/A, New Measure		A ward or unit is defined having unique staff, patient population, geographic location or function from other IP/ER Departments.
Policy Priority: Engage patients and families in their health care				
EP Only: Provide patients the ability to view and download their health information within four business days of the information [labs, imaging, etc] being available to the EP.	Core, 50% *Numerator:* Patients who can access their information *Denominator:* Number of Unique Patients	Core, 50% within 4 days	Providers who provide 50% of their care in areas where 50% of their patients do not have at least 4 Mbps broadband availability	
	Core, 10% *Numerator:* Patients who access/download/transmit their information *Denominator:* Number of Patient Visits	N/A		

Objectives	Measure	Stage 1	Exclusions	Exclusions/Notes
EH/CAH Only: Provide patients the ability to view online and download information about a hospital admission within 36 hours of discharge	Core, 50% *Numerator:* Patients who can access their information *Denominator:* Number of Unique Patients	New	50% of patients do not have at least 4 Mbps broadband availability	
	Core, 10% *Numerator:* Patients who access/download/transmit their information *Denominator:* Number of Patient Visits	N/A		
EP Only: Provide clinical summaries for patients within 24 hours for each office visit.	Core, 50% *Numerator:* Office Visits with Clinical Summaries *Denominator:* Office Visits	Core, 50% within 3 days	No office visits in reporting period	
Use Certified EHR Technology to identify patient-specific education resources and provide those resources to the patient.	Core, 10% *Numerator:* Patients provided resources *Denominator:* Number of Unique Patients	Menu, 10%	No office visits in reporting period	
EP Only: Use secure electronic messaging to communicate with patients on relevant health information.	Core, 10% *Numerator:* Patients receiving message *Denominator:* Number of Unique Patients	New		

Objectives	Measure	Stage 1	Exclusions	Exclusions/Notes
Policy Priority: Improve care coordination				
Medication Reconciliation is performed upon receiving a patient from another setting of care. Most accurate list of all medications that the patient is taking: • Name • Dosage • Frequency • Route	Core, 65% *Numerator:* Patients for which MR was performed *Denominator:* Patients received from another setting of care	Menu, 50%		It's unlikely to be an automated process so the electronic exchange of information is not required. "another setting of care" is from outside the organization.
Any provider 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.	Core, 65% *Numerator:* TOC with Summary of Care Documents Generated *Denominator:* TOC/Referrals	Menu, 50%	Not the recipient of any TOC during the reporting period.	Includes Eliminated Objectives: • Active Problem/Diagnosis List (Core, 50%) • Active Medication List (Core, 80%) • Active Medication Allergy List (Core, 80%)
	Core, 10% *Numerator:* TOC with SOC generated electronically *Denominator:* TOC/Referrals	N/A		
Policy Priority: Improve population and public health				
Capability to submit electronic data to immunization registries or immunization information systems. **EH/CAH Only:** Capability to submit electronic reportable laboratory results to public health agencies, except where prohibited, and in accordance with applicable law and practice.	Successful ongoing submission.	Menu, Test Ability	If there are no appropriate agencies/registries to receive the information. If the registry/agency doesn't accept electronic submissions format/standard specified by ONC's certification rules. If an	Stage 3 will likely be bidirectional.

Objectives	Measure	Stage 1	Exclusions	Exclusions/Notes
EP Menu; EH/CAH Core: Capability to submit electronic syndromic surveillance data to public health agencies, except where prohibited, and in accordance with applicable law and practice.		Core, Test Ability	HIE has been delegated to receive information on the agency/registry's behalf this exclusion is not acceptable. Where prohibited, and in accordance with applicable law and practice.	
Policy Priority: Ensure adequate privacy and security protections for personal health information				
Protect electronic health information created or maintained by the Certified EHR Technology through the implementation of appropriate technical capabilities.	Core. Conduct a security risk analysis in accordance with the requirements under 45 CFR 164.308			

Menu Set Objectives

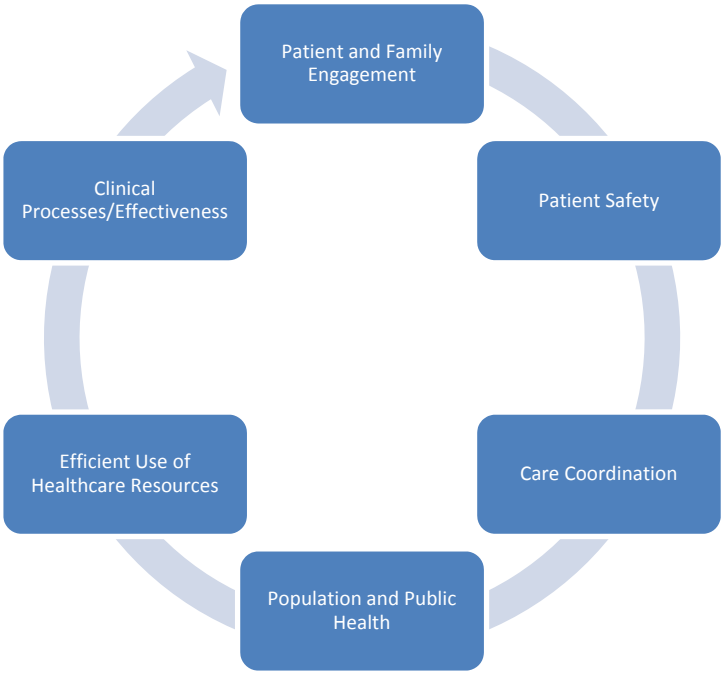
Eligible Providers (EPs): 17 core objectives, and 3 of 5 menu objectives
Eligible Hospitals and Critical Access Hospitals (EH/CAH): 16 core, 2 of 4 menu objectives.

Objectives	Measure	Stage 1	Exclusions	Exclusions/Notes
Policy Priority: Improving quality, safety, efficiency, and reducing health disparities				
EH/CAH Only: Record advance directives as structured data for patients 65 years old or older who are admitted to the hospitals inpatient department.	Menu, 50% *Numerator:* Patients with information recorded *Denominator:* All patients over 65 years	Menu, 50%	No patients over 65 years	
Incorporate imaging results and information into/accessible through Certified EHR Technology.	Menu, 40% *Numerator:* Incorporated Imaging Results *Denominator:* Imaging Tests/Scans	New	No tests or scans	Does not have to be structured data. Stage three is likely to include the exchange of the data.
Record patient family health history as structured data EHR reporting period for one or more first-degree relatives or an indication that family health history has been reviewed.	Menu, 20% *Numerator:* Patients with Information Recorded *Denominator:* All Unique Patients	New	No Office Visits.	

Objectives	Measure	Stage 1	Exclusions	Exclusions/Notes
EH/CAH Only: Generate, check against one formulary, and transmit permissible discharge prescriptions electronically (eRx).	Menu, 10% *Numerator:* Rx Generated *Denominator:* Discharge Rx Written	New		Measure limited to new and changed Rx. Invited comment on whether refilled Rx should be included.
Policy Priority: Improve Population and Public Health				
EP Only: Capability to identify and report specific cases to a specialized registry (other than a cancer registry).	Successful ongoing submission.	New	Except where prohibited, as appropriate to the provider's practice, and in accordance with applicable law and practice	
EP Only: Capability to identify and report cancer cases to a State cancer registry.				
EP Menu; EH/CAH Core: Capability to submit electronic syndromic surveillance data to public health agencies.		Menu		

Clinical Quality Measures

- Many measures were put out in the rule, only a subset will be finalized.
- Six Domains aligned with National Strategies for Quality Improvement in Healthcare:



EP CQM Measures: 125 Potential Measures

Two Options:

- Option 1a: Select and submit 12 measures from the list of measures; one measure from each domain is required. If a provider's EHR doesn't include information for 12 measure, they must submit all of the measures that they can.
- Option 1b: Report 11 "core" CQM, plus 1 "menu" CQM.
- Option 2: Submit and satisfactorily report CQM under the Physician Quality Reporting System's EHR Reporting Option (42 CFR 414.90).

Measures Include:

- Conditions/Disease Management:
  - Asthma
  - Cardiology: Coronary Artery Disease, Ischemic Vascular Disease, Myocardial Infarction, Heart Failure, COPD, Atrial Fibrillation
  - Dementia
  - Eyes: Cataracts, Glaucoma
  - Hepatitis C
  - HIV/AIDS
  - Joints/Bones: Rheumatoid Arthritis, Osteoarthritis, Osteoporosis, Lower Back

Pain, Knee/Hip Replacement
    - Kidney Disease
    - Oncology: General Oncology, Breast, Cervical, Colorectal, Colon, Prostate, Melanoma Diabetes
    - Otitis Externa
    - Psychiatric: Major Depressive Disorder, ADHD, Bipolar Disorder
    - Urinary Incontinence
    - Wound Care
- Drug Management:
    - Antibiotic Use: Pharyngitis, Bronchitis, Upper Respiratory Infection, Perioperative Care
    - Asthma
    - ADHD
    - Cardiology: Heart Failure, Atrial Fibrulation, Coronary Artery Disease (CAD), Ischemic Vascular Disease (IVD), Myocardial Infarction (MI), Chronic Obstructive Pulmonary Disease (COPD),
    - Depression
    - Diabetes
    - Hypertension
    - HIV/AIDS
    - Kidney Disease
    - Oncology: Chemotherapy/Radiation/Pain, Colon, Breast, Prostate, Prostate
    - Osteoarthritis (OTC Assessments)
    - Perioperative VTE Prophylaxis and Antibiotic Timing
- Preventative Care:
    - Alcohol/Drug Dependence
    - Antibiotic Use: Pharyngitis, Bronchitis, Upper Respiratory Infection, Perioperative Care
    - Blood Pressure
    - Chlamydia Screening
    - Cholesterol
    - Dental Decay
    - Immunizations: Flu, childhood, pneumonia, HCV, HBV
    - Falls Risk
    - Maternal/Prenatal Care
    - Tobacco Screening
    - Weight Screening
- Medical Practice:
    - Adverse Event Reporting
    - Complex Chronic Condition Assessment
    - Diagnostic Imaging Reports
    - Medication Reconciliation
    - Specialist Referral Loop Closure
    - Use of High Risk Medications in Elderly

EH/CAH Measures: 49 possible measures

Two options for attesting:

- Select and submit 24 measures from a list of 49 measures (all 15 from Stage One are included); one measure from each domain is required.
- Submit 24 CQM in a manner similar to the 2012 Medicare EHR Incentive Program Electronic Reporting Pilot (Medicare Hospitals Only).

- Drug Management:
  - Antibiotics: Pneumonia, Perioperative
  - Asthma
  - Cardiology: AMI, HF,
  - Ischemic Stroke
  - Pneumonia (antibiotics)
  - VTE Prophylaxis
- Disease/Condition Care:
  - Asthma
  - Cardiology: Heart Failure, AMI,
  - Immunizations: Pneumococcal, Flu
  - Ischemic Stroke
  - Labor/Delivery: hearing, elective births, surfactant, complications
  - Surgical: VTE Prevention, Antibiotics, Catheter, Hair Removal
- Medical Practice:
  - Home Management Plan of Care
  - Emergency Department Throughput
  - PICU Pain Assessments
  - NICU temperatures

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[i] References to Stage Two of Meaningful Use were taken from the Notice of Proposed Rule Making Released Feburary 23, 2012. http://www.ofr.gov/OFRUpload/OFRData/2012-04443_PI.pdf

[ii] References to Stage One of Meaningful Use were taken from the Final Rule Released July 28, 2010 http://edocket.access.gpo.gov/2010/pdf/2010-17207.pdf

[iii] Taken from the NPRM, Page 28: http://www.ofr.gov/OFRUpload/OFRData/2012-04443_PI.pdf#page=28