



MEANINGFUL USE

HIMSS – Chicago Chapter

Lessons Learned on the Way to Meaningful Use

Dan Murry





Introduction

Dan Murry, VP of Management Consulting

- 35+ years in information technology
- Expertise in Meaningful Use, Strategic Planning, System Selection, contract negotiation, board education, etc.
- Served as VP European and US operations for large systems vendor, CIO, Programmer, Systems Analyst
- Leads all major MU initiatives for maxIT clients providing guidance and direction regarding Meaningful Use. Has delivered MU and HIE presentations to multiple HIMSS chapters, IDNs and hospitals across the nation



Agenda

1. Recap MU & Stage 1

2. Stage 2 & 3 Expectations

3. Lessons Learned

4. Questions to Ask Yourself



Challenges of Meaningful Use

ARRA provides significant incentives for organizations and providers to achieve goals and penalizes those who don't

- Improving quality, safety and efficiency
- Engaging patients in their care
- Increasing coordination of care
- Improving the health status of the population
- Ensuring privacy and security



Recap of Stage 1





Specifics of Stage 1 Meaningful Use

- Meaningful use includes both a core set and a menu set of objectives that are specific for eligible professionals and hospitals.
- Reporting Clinical Quality Measures
- To meet certain objectives/measures, 80% of patients must have records in the certified EHR technology



Specifics of Stage 1 Meaningful Use

- For Hospitals:
 - There are a total of 24 meaningful use objectives.
 - 14 are core objectives that are required
 - The remaining 5 objectives may be chosen from the list of 10 menu set objectives.
 - 15 Clinical Quality Measures in 3 categories: ED, Stroke, and VTE [Venous thromboembolism]
 - Need only to report the required clinical quality measures; do not need to satisfy a min value for any numerator, denominator, or exclusions.



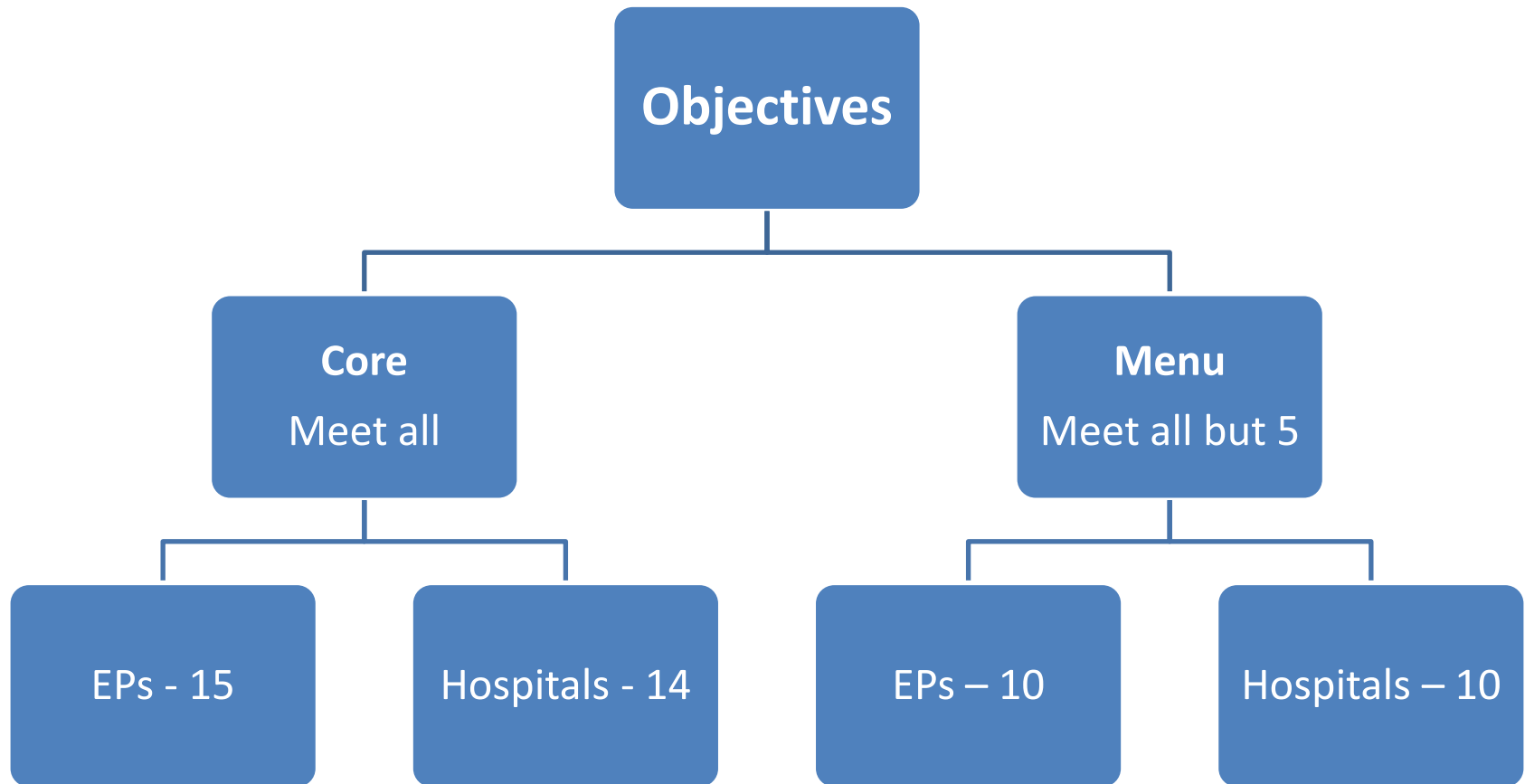
Reporting Period

- For an **eligible professional**:
 - For the first payment year, any continuous 90-day period within a calendar year.
 - For the second, third, and fourth payment year, the calendar year.

- For a **eligible hospital** or a **critical access hospital**:
 - For the first payment year, any continuous 90-day period within the Federal fiscal year.
 - For the second, third, and fourth payment year, the Federal fiscal year.



Objectives Requirements



Core Objectives

(Required for All Meaningful Users)

- Use CPOE for medication orders directly entered by any licensed healthcare professional
- Implement drug-drug and drug-allergy checks
- Maintain an up-to-date problem list
- Maintain active medication list
- Maintain active medication allergy list
- Record demographics
- Record and chart changes in vital signs
- Record smoking status for patients 13+
- Report ambulatory/hospital quality measures to CMS or the States
- Implement one clinical decision support rule
- Provide patients with an electronic copy of their health information, upon request
- Provide clinical summaries for patients for each office visit
- Capability to exchange key clinical information among providers of care and patient authorized entities electronically
- Protect electronic health information

EPs only:

- E-prescribing

Hospitals only:

- Provide patients with an electronic copy of their discharge instructions, upon request

Menu Objectives

(Meaningful Users Must Achieve All But 5)

- Implement drug-formulary checks.
- Incorporate clinical lab-test results into EHR
- Generate lists of patients by specific conditions
- Send reminders to patients per patient preference for preventive/ follow up care
- Identify patient-specific education resources and provide those resources to the patient if appropriate
- Perform medication reconciliation
- Provide summary care record for each transition of care and referral
- Capability to submit electronic data to immunization registries
- Capability to provide electronic syndromic surveillance data to public health agencies

EPs only:

- Provide patients with timely electronic access to their health information within four business days

Hospitals:

- Record advance directives for patient 65+
- Capability to provide electronic submission of reportable lab results to public health agencies

Reference: MU Final Rule page 221-226



Stage 2 & 3 Expectations





Stage 2 & 3 Expectations

- All optional items in stage 1 will be mandatory in Stage 2
- Thresholds of Stage 1 rules will be elevated (i.e. rules that require a 30% compliance will move to their original percentage of compliance – most in the 50% to 80% range)
- Laboratory systems will probably be required to be certified (lab vendors are lobbying for this)
- Additional rule sets and expansion of quality measures is expected
- Expansion of CDS for both volume and depth
- Continued expansion of Physician involvement, and inclusion of NP, and PA involvement.
- CPOE will require the addition of Lab and/or Radiology
- CDS will be expanded to include CDS processes that are directly pertinent to problem list

Stage 1 - Final Rule	Proposed Stage 2	Proposed Stage 3
Improving Quality, Safety, Efficiency, & Reducing Health Disparities		
CPOE for medication orders (30%)	CPOE for medication orders and at least 1 lab and radiology order (60%) unless non available	CPOE for medication orders and at least 1 lab or radiology order (80%)
Drug-Drug/Drug-Allergy interaction checks	Employ drug-drug interaction checking and drug allergy checking on appropriate evidence-based interactions; Providers have the ability to refine DDI [In stage 3, goal is to have nationally endorsed lists of DDI with higher positive predictive value and ability to record reason for overriding alert]	Employ Drug-Drug interaction checking, drug age checking (meds in elderly), drug dose checking (pediatric dosing, chemotEHRapy dosing), drug-lab checking, and drug-condition checking (including pregnancy and lactation) on evidence based interactions
E-Prescribing (eRX - EP) - (40%)	50% of orders (outpatient and hospital discharge transmitted as eRX) and 20% of hospital discharge	80% of orders (outpatient and hospital discharge transmitted as eRX)
Record demographics (50%)	50% of patients have demographics recorded and can use them to produce stratified quality reports using more granular demographic categories per IOM report—additions to value sets for existing fields for stage 2; new demographic fields for stage 3 (HITSC needs to work on standards)	90% of patients have demographics recorded and can use them to produce stratified quality reports
Report CQM electronically	Continue as per Quality Measures Workgroup and CMS	Continue as per Quality Measures Workgroup and CMS
Maintain problem list (80%)	Continue Stage 1	80% problem lists are up to date
Maintain active medication list (80%)	Continue Stage 1	80% of medication lists are up to date
Maintain active medication allergy list (80%)	Continue Stage 1	80% of medication allergy list are up to date
Record vital signs (50%) for all patients age 2 and over	Record vital signs (80%) ; change age for peds BP from 2 yrs to 3 yrs	Record vital signs (80%)
Record smoking status (50%)	Record smoking status (80%)	Record smoking status (90%) [stage 3 add new field in certification for secondhand smoke]

Stage 1 - Final Rule	Proposed Stage 2	Proposed Stage 3
Implement 1 CDS rule	Use CDS to improve performance on high-priority health conditions. Establish CDS attributes for purposes of certification: 1. Authentication (source cited), 2. Credible, evidence-based; 3. Patient context sensitive; 4. Invokes relevant knowledge; 5. Timely; 6. Efficient workflow; 7. Integrated with EHR; 8. Presented to the appropriate party who can take action - HITSC: Suggest changing certification criteria definition as indicated on comment summary	Use CDS to improve performance on high-priority health conditions. Establish CDS attributes for purposes of certification: 1. Authentication (source cited), 2. Credible, evidence-based; 3. Patient context sensitive; 4. Invokes relevant knowledge; 5. Timely; 6. Efficient workflow; 7. Integrated with EHR; 8. Presented to the appropriate party who can take action
Implement Drug formulary checks (*)	Move current measure to core - according to local needs	80% of medication orders are checked against relevant formularies
Record existence of advance directives (50%) (EH) (*)	Make core requirement. For EH and EP: 50% of patients 65 years of age or older have recorded in the EHR the result of an advance directive discussion and the directive itself if it exists - for EPs 10% of patients seen during reporting period (need more data on current use to decide on menu vs. core for EPs)	Make core requirement. For EH and EP: 90% of patients 65 years of age or older have recorded in the EHR the result of an advance directive discussion and the directive itself if it exists
Incorporate lab results as structured data (40%) (*)	Move current measure to core, but only where results are available - HITSC: Use LOINC where available	90% of lab results electronically ordered by EHR are stored as structured data in the EHR and are reconciled with structured lab orders, wEHRe results and structured orders are available
Incorporate lab results as structured data (40%) (*)	Move current measure to core, but only where results are available	90% of lab results electronically ordered by EHR are stored as structured data in the EHR and are reconciled with structured lab orders, wEHRe results and structured orders are available
(NEW) (EH)	30% of medication orders automatically tracked via electronic medication administration record in-use in at least one hospital ward/unit)	80% of medication orders automatically tracked via electronic - medication administration recording
(NEW)		Consider adding recording of family health history in Stage 3 (Due to absence of standards for FH)
Engage Patients and Families in Their Care		
Provide electronic copy of health information, upon request (50%)	Continue Stage 1 - DROPPED; to be covered by other objectives and HIPAA	90% of patients have timely access to a copy of their health information from electronic health record, upon request

Stage 1 - Final Rule	Proposed Stage 2	Proposed Stage 3
Provide electronic copy of discharge instructions (EH) at time of discharge (50%)	Electronic discharge instructions for hospitals (which are given as the patient is leaving the hospital) are offered to at least : ≥ 25 80% of patients (patients may elect to receive only a printed copy of the instructions)	Electronic discharge instructions for hospitals (which are given as the patient is leaving the hospital) are offered to at least 90% of patients (patients may elect to receive only a printed copy of the instructions)
EHR-enabled patient-specific educational resources (10%)	Continue Stage 1 - make core; take out "if appropriate" instead of raising threshold	20% offered patient-specific education resources online in the common primary languages
Provide clinical summaries for each office visit (EP) (50%)	Patients have the ability to view and download relevant information about a clinical encounter within 24 hours of the encounter. Follow-up tests are linked to encounter orders but not ready during the encounter should be included in future summaries of that encounter, within 4 days of becoming available. Data are available in human-readable and structured forms	Patients have the ability to view and download relevant information about a clinical encounter within 24 hours of the encounter. Follow-up tests are linked to encounter orders but not ready during the encounter should be included in future summaries of that encounter, within 4 days of becoming available. Data are available in human-readable and structured forms
This objective sets the measures for "provide timely electronic access (EP)" and for "provide clinical summaries for each office visit (EP)"	EP's: 20% of patients use a web-based portal to access their information (for an encounter or for the longitudinal record) at once. Exclusions: patients without ability to access the Internet	EP's: 20% of patients use a web-based portal to access their information (for an encounter or for the longitudinal record) at once. Exclusions: patients without ability to access the Internet
(NEW) (EP)	EP's: online secure patient messaging is in use	EP's: online secure patient messaging is in use - EPs: patients are offered secure messaging online and > 25 patients have sent secure messages online
(NEW)	Patient preferences for communication medium recorded for 20% of patients	Patient preferences for communication medium recorded for 80% of patients - EPs: Patient preferences for communication medium recorded for 20% of patients
(NEW)		Offer electronic self-management tools to patients with high priority health conditions
(NEW)		EHRs have capability to exchange data with PHRs using standards-based health data exchange
(NEW)		Patients offered capability to report experience of care measures online

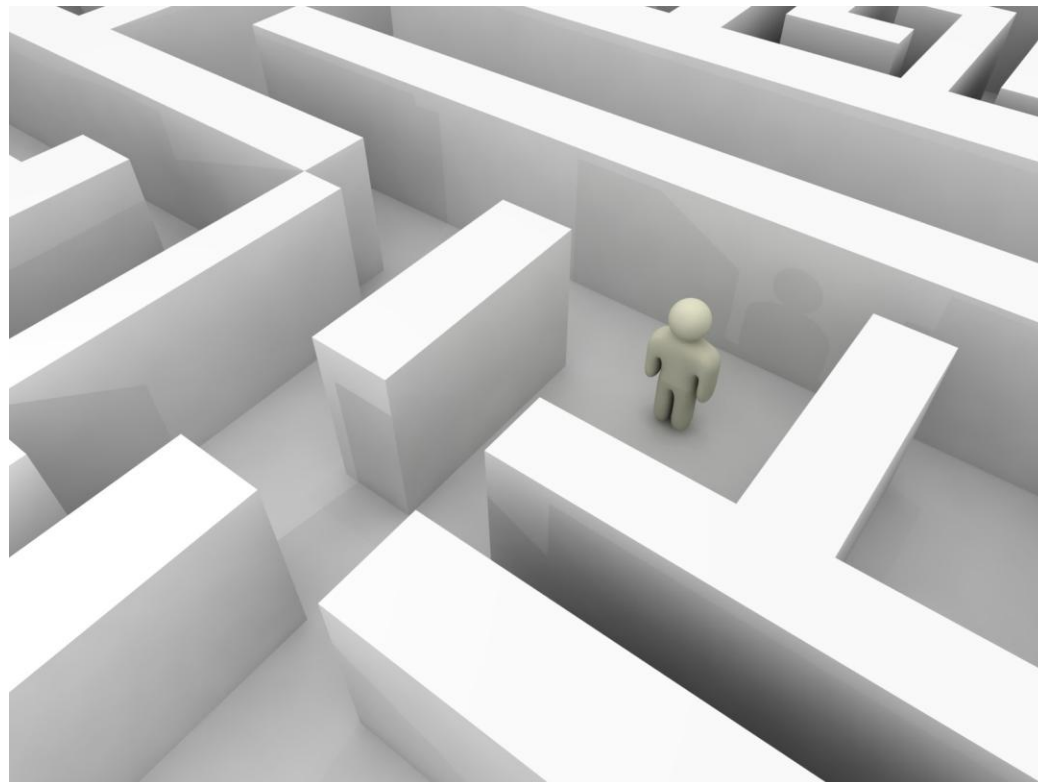
Stage 1 - Final Rule	Proposed Stage 2	Proposed Stage 3
(NEW)		Offer capability to upload and incorporate patient-generated data (i.e. electronically collected patient survey data, biometric home monitoring data, patient suggestions of corrections to errors in the record) into EHRs and clinician workflow - Stage 3: Provide mechanism for patient-entered data (supply list); consider "information reconciliation" for stage 3 to correct errors
Improve Care Coordination		
Perform test of HIE	Connect to at least three external providers in "primary referral network" (but outside delivery system that uses the same EHR) or establish an ongoing bidirectional connection to at least one health information exchange	Connect to at least 30% of external providers in "primary referral network" or establish an ongoing bidirectional connection to at least one health information exchange
Perform 50% medication reconciliation (*)	Medication reconciliation conducted at 80% of care transitions by receiving provider (transitions from another setting of care, or from another provider of care, or the provider believes it is relevant	Medication reconciliation conducted at 90% of care transitions by receiving provider
(NEW)	Record a longitudinal care plan for 20% of patients with high priority health conditions	Longitudinal care plan available for electronic exchange for 50% of patients with high priority health conditions
Improve Population and Public Health		
Submit immunization data (*)	EH and EP: Mandatory test. Some immunizations submitted on an ongoing basis to Immunization Information Systems (IIS), if accepted and as required by law	EH and EP: Mandatory test. Some immunizations submitted on an ongoing basis to Immunization Information Systems (IIS), if accepted and as required by law. During well child/adult visits, providers review IIS records via EHR
Submit reportable lab data (*)	EH: Move stage 1 to core - EP: Lab reporting menu. For EP's ensure that reportable lab results and conditions are submitted to public health agencies either directly or through their performing labs (if accepted and as required by law)	Mandatory test. EH: Submit reportable lab results and reportable conditions if accepted and as required by law. Include contact information (i.e. patient address, phone, and municipality) in 30% of reports - EP: Ensure that reportable lab results and reportable conditions are submitted to public health agencies either directly or through performing labs (if accepted and as required by law)
Submit syndromic surveillance data (*)	Move to core	Mandatory test; submit if accepted - Public Health Button for EH and EP; Mandatory test and submit it accepted. Submit modifiable conditions using a reportable public-health submission button. EHR can receive and present public health alerts or follow up requests
(NEW)		Patient-generated data submitted to public health agencies

Stage 1 - Final Rule	Proposed Stage 2	Proposed Stage 3
<i>Ensure Adequate Privacy and Security Protections for Personal Health Information</i>		
Conduct Security review analysis and correct deficiencies	Perform, or update, security risk assessment and address deficiencies. <i>Address encryption for data at rest and attest to policy (not required for all but need policy).</i>	Continue Stage 1
	<i>FOR HITSC CERTIFICATION:</i> <i>Authentication of providers: certification of EHR needs two-factor authentication for controlled substances and providers to have digital certificates at entity level. Single factor authentication (user and password) for patient online account. Audit trails for access to patient online account.</i> <i>Provisions for data provenance. Portal should have secure download ability (e.g., to transfer to PHR). Instructions to standards committee about demographic fields, etc. Signal Stage 3 plans about NWHIN governance.</i>	

Note: (*) indicates that the rule is now or was a menu option in Stage 1



Lessons Learned





Getting Started...

Look at Key Milestones:

- *Governance*
- *Assessment & Planning*
- *Registration*
- *Attestation (and Payment!)*
- *Audit Preparation*
- *Stage 2 & 3 Readiness*





Lessons Learned - Registration

- Creation of “authorized users” designated within the facility that will control all other users can be tedious
 - Identify user, print out documents, sign documents, mail documents, etc. – can take up to a month to accomplish
- CMS / MU program registration must match up with your PECOS system
 - i.e. NPI, facility category, name, etc. – involvement of intermediary
- Some action items are not automated
- Availability of documents
 - Not for profit forms submitted to IRS, CCN numbers, etc. should be available if needed



Lessons Learned (cont'd)

- Facilities are finding that workflow interactions with patients based on MU rules is sometimes being challenged
 - i.e. race, ethnicity, etc – patients are stating that they do not wish to answer the questions based on the acceptable answers
- Lots of confusion over duplication between programs
 - PQRI, eRX, MU
 - CMS has stated they will be bringing out a revised rule set in July to bring the programs closer together



Lesson Learned (cont'd)

- Multiple site facilities have experienced:
 - Difficult to set up an authorized user to cross over multiple facilities
 - Extremely difficult to register multiple facilities where more than one facility is using the same tax ID number (i.e. dba's)
 - PECOS and NPPES systems must match up exactly to allow registration and attestation to occur



Lessons Learned (cont'd)

- Registration takes from 2 to 4 weeks
- Ensure the legal documents are in place for employed physicians to allow the pass thru of funds for stimulus money to the facility
- Audit preparedness is key
 - Keep screen shots of registration
 - Keep screen shots of attestation
 - Keep rules as they existed during that time frame
 - Understand data pointers and how data/patients were counted
 - Keep Audit check list to help you thru the process



Problem Areas





Problem Areas

- Major problem areas being currently encountered are:
 - *Problem list* (80% requirement / usually done in EP setting but not in hospitals – major workflow issues)
 - *Quality reporting* (ill defined for formatting, rule changes – for example now they have ruled that the rules reporting can come from a non certified data warehouse, but quality reports can not / however fine print in some areas suggest that is not true)
- State registration needs – can be complicated
- Major workflow changes to accommodate most rule objectives and measurements
 - i.e. where do acquire advanced directives, 13 years of age or older smoker, etc. – at registration, H & P, bedside, etc.



State Registrations - Needs

- State registration needs encompass several major areas
 - Who you are
 - NPI, Not for profit, PECOS, etc
 - Documents you need
 - Cost reports (identification of which years based on fiscal reporting year)
 - Proof of moving to certified code (receipt, vendor work plan, signed contract, etc.)
 - Vendor certification number
 - Etc.
 - Decisions you need to make
 - Who owns the process
 - What cost reports where used
 - Where does charity care come from (i.e. general ledger or cost report)
 - Review
 - Submission



Late Breaking News

- Obama Healthcare Law ruled “constitutional” by lower court – opening the way for Supreme Court review.
 - <http://news.yahoo.com/appeals-court-upholds-obama-health-care-law-161931692.html>



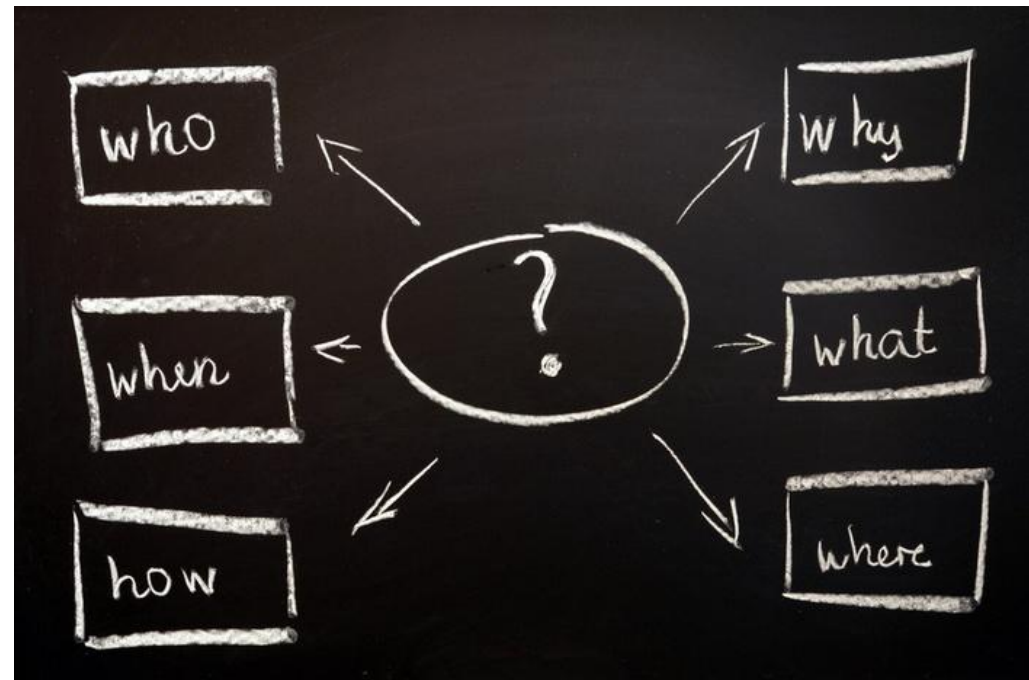
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"We agree with the logic of delaying the start of Stage 2 for a period of one year for those attesting in 2011."

Farzad Mostashari, M.D.

*National Coordinator for Health Information
Technology*

Questions to Ask Yourself





Meaningful Use and EMR

- Where are you now or when will you achieve meaningful use?
- Can you demonstrate, measure and validate your progress towards meaningful use?
- Do you have an assessment tool to audit the status and readiness of your organization's IT infrastructure, clinical systems, adoption threshold, and performance baselines? (i.e. compliance dashboard)
- Have you reviewed MU and PECOS for compatibility?
- How are you going to handle the Problem list? Workflow? Ownership?
- Have you reviewed your State / Fed Registration requirements?
- Have you reviewed the State / Fed Attestation screens and processes?

US EMR Adoption Model SM			
Stage	Cumulative Capabilities	2010 Q2	2010 Q3
Stage 7	Complete EMR; CCD transactions to share data; Data warehousing; Data continuity with ED, ambulatory, OP	0.8%	1.0%
Stage 6	Physician documentation (structured templates), full CDSS (variance & compliance), full R-PACS	2.6%	2.8%
Stage 5	Closed loop medication administration	3.2%	3.7%
Stage 4	CPOE, Clinical Decision Support (clinical protocols)	9.7%	10.3%
Stage 3	Nursing/clinical documentation (flow sheets), CDSS (error checking), PACS available outside Radiology	50.2%	49.7%
Stage 2	CDR, Controlled Medical Vocabulary, CDS, may have Document Imaging; HIE capable	15.5%	15.4%
Stage 1	Ancillaries - Lab, Rad, Pharmacy - All Installed	6.8%	6.7%
Stage 0	All Three Ancillaries Not Installed	11.2%	10.5%

Data from HIMSS AnalyticsTM Database © 2010

N = 5,217 N = 5,233



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US EMR Adoption ModelSM

Stage	Cumulative Capabilities	2008 Final	2009 Final
Stage 7	Complete EMR; CCD transactions to share data; Data warehousing; Data continuity with ED, ambulatory, OP	0.3%	0.7%
Stage 6	Physician documentation (structured templates), full CDSS (variance & compliance), full R-PACS	0.5%	1.6%
Stage 5	Closed loop medication administration	2.5%	3.8%
Stage 4	CPOE, Clinical Decision Support (clinical protocols)	2.5%	7.4%
Stage 3	Nursing/clinical documentation (flow sheets), CDSS (error checking), PACS available outside Radiology	35.7%	50.9%
Stage 2	CDR, Controlled Medical Vocabulary, CDS, may have Document Imaging; HIE capable	31.4%	16.9%
Stage 1	Ancillaries – Lab, Rad, Pharmacy - All Installed	11.5%	7.2%
Stage 0	All Three Ancillaries Not Installed	15.6%	11.5%

Meaningful Use

← Stage 3

← Stage 2

← Stage 1

Data from HIMSS Analytics™ Database © 2010

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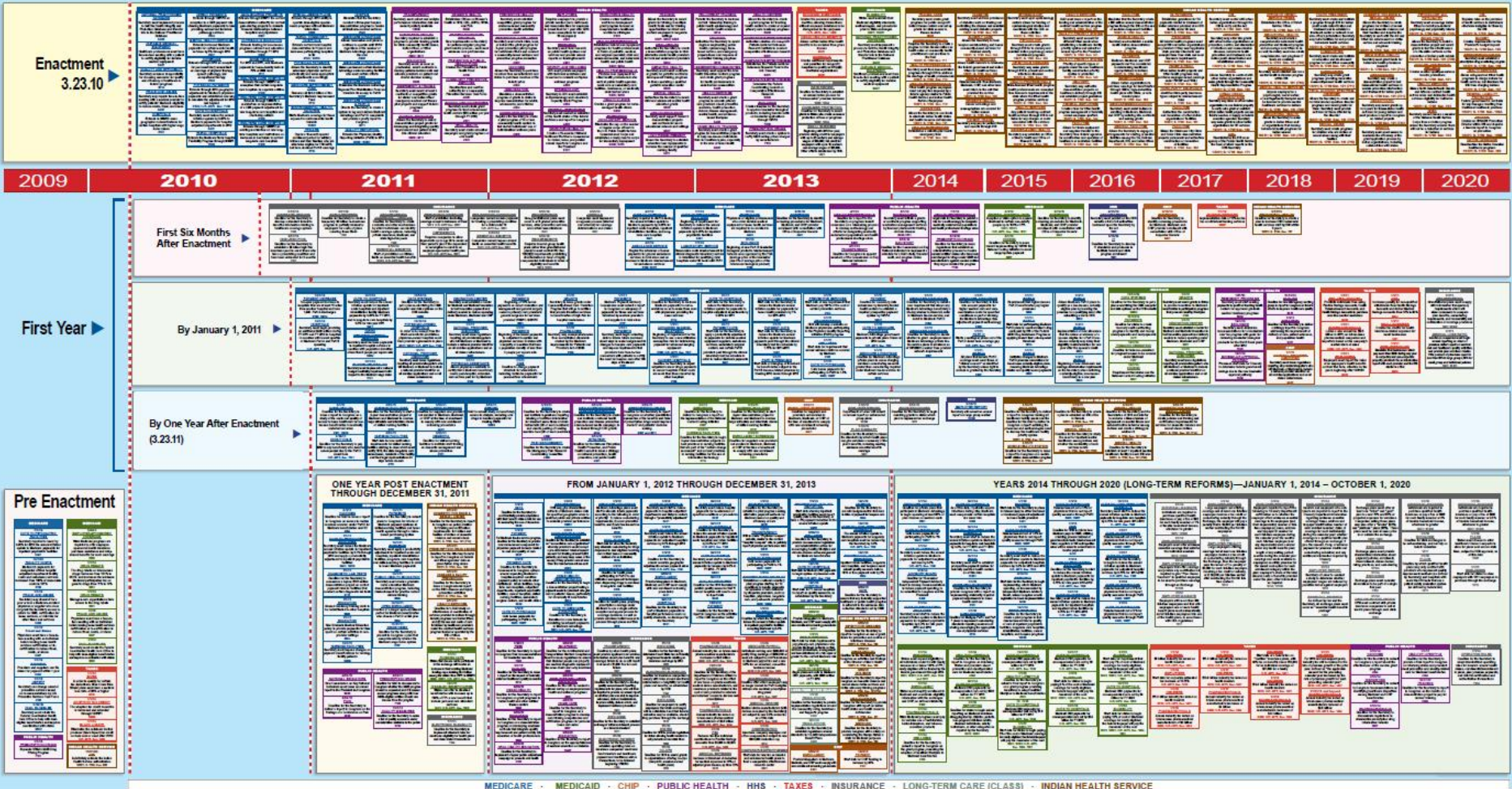
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Center for Health Transformation Wall Chart



IMPLEMENTATION TIMELINE OF THE HEALTH REFORM LAW

H.R. 3590, The Patient Protection and Affordable Care Act, P.L. 111-148, Signed into Law March 23, 2010; as amended by H.R. 4872, The Health Care and Education Affordability Reconciliation Act, P.L. 111-152, Signed into Law March 30, 2010



MEDICARE - MEDICAID - CHIP - PUBLIC HEALTH - HHS - TAXES - INSURANCE - LONG-TERM CARE (CLASS) - INDIAN HEALTH SERVICE



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Thank You!

*For further questions or information, please
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