

Achieving Meaningful Use Quality Measures

John D. Halamka MD
CIO, Harvard Medical School and
Beth Israel Deaconess Medical
Center

My Definition of Meaningful Use

Processes and workflow that facilitate improved quality and increased efficiency

Standards Harmonization Roadmap

AHIC Priorities and Use Case Roadmap

2006	2007 Use Cases		2008 Use Cases		2009 Use Case
Consumer Empowerment <ul style="list-style-type: none"> • Registration • Medication History 		Consumer Access to Clinical Information <ul style="list-style-type: none"> • Access to Clinical Data • Provider Permissions • PHR Transfer 	Remote Monitoring <ul style="list-style-type: none"> • Remote Monitoring of Vital Signs and Labs (Glucose) 	Patient – Provider Secure Messaging <ul style="list-style-type: none"> • Structured email • Reminders 	Newborn Screening
EHR (Lab) <ul style="list-style-type: none"> • Laboratory Result Reporting 	Emergency Responder EHR <ul style="list-style-type: none"> • On-Site Care • Emergency Care • Definitive Care • Provider Authentication and Authorization 	Medication Management <ul style="list-style-type: none"> • Medication Reconciliation • Ambulatory Prescriptions • Contra-indications 	Consultations and Transfers of Care <ul style="list-style-type: none"> • Referrals • Problem Lists • Transfer of Care 	Personalized Healthcare <ul style="list-style-type: none"> • Laboratory Genetic / Genomic Data • Family Medical History 	2009 Use Case Ext/Gaps
Biosurveillance <ul style="list-style-type: none"> • Visit • Utilization • Clinical Data • Lab and Radiology 		Quality <ul style="list-style-type: none"> • Hospital Measurement and Reporting • Clinician Measurement and Reporting • Feedback to Clinicians 	Public Health Case Reporting <ul style="list-style-type: none"> • Case Reporting • Bidirectional Communication • Labs • Adverse Events 	Immunizations & Response Management <ul style="list-style-type: none"> • Resource Identification • Vaccine • EHR Data 	General Laboratory Orders
					Medication Gaps
					Common Device Connectivity
					Clinical Encounter Notes
					Order Sets
					Scheduling
					Common Data Transport
					Consumer Preferences
					Medical Home: Co-Morbidity and Registries
					Maternal and Child Health
					Long Term Care - Assessments
					Prior Auth for Treatment, Payment, & Operations
					Consumer AE Reporting

HITEP

84 NQF-endorsed AQA/HQA measures require 35 data types

- Asthma
- Cancer screening
- Care coordination
- Diabetes
- End-of-life with advanced organ system failure
- Frailty associated with old age
- Immunization
- Ischemic heart disease
- Major depression
- Medication management
- Pregnancy and childbirth
- Stroke
- Tobacco dependence treatment in adults

Examples of Data Types

Demographics

- Content: HL7 2.x for messaging, CCD for document summaries
- Vocabulary: HITSP Harmonized code sets for gender, marital status

Problem List

- Content: HL7 2.x for messaging, CCD for document summaries
- Vocabulary: SNOMED-CT

Medications

- Content: NCPDP script for messaging, CCD for document summaries
- Vocabulary: RxNorm and Structured SIG

Examples of Data Types

Allergies

- Content: HL7 2.x for messaging, CCD for document summaries
- Vocabulary: UNII for foods and substances, NDF-RT for medication class, RxNorm for Medications

Progress Notes and Other Narrative Documents (History and Physical, Operative Notes, Discharge Summary)

- Content: HL7 2.x for messaging, CCD for document summaries
- Vocabulary: CDA Templates

Departmental Reports (Pathology/Cytology, GI, Pulmonary, Cardiology etc.)

- Content: HL7 2.x for messaging, CCD for document summaries
- Vocabulary: SNOMED CT

Examples of Data Types

Laboratory Results

- Content: HL7 2.x for messaging, CCD for document summaries
- Vocabulary: LOINC for lab name, UCUM for units of measure, SNOMED-CT for test ordering reason

Microbiology

- Content: HL7 2.x for messaging, CCD for document summaries
- Vocabulary: LOINC for lab name/observation

Administrative Transactions (Benefits, Referrals, Claims)

- Content: X12
- Vocabulary: X12, CAQH CORE

Common Secure Transport

Privacy and Security

- Transport: HTTPS, SOAP/REST
- Transport Orchestration: WS*
- Authorization/Access Control: XACML

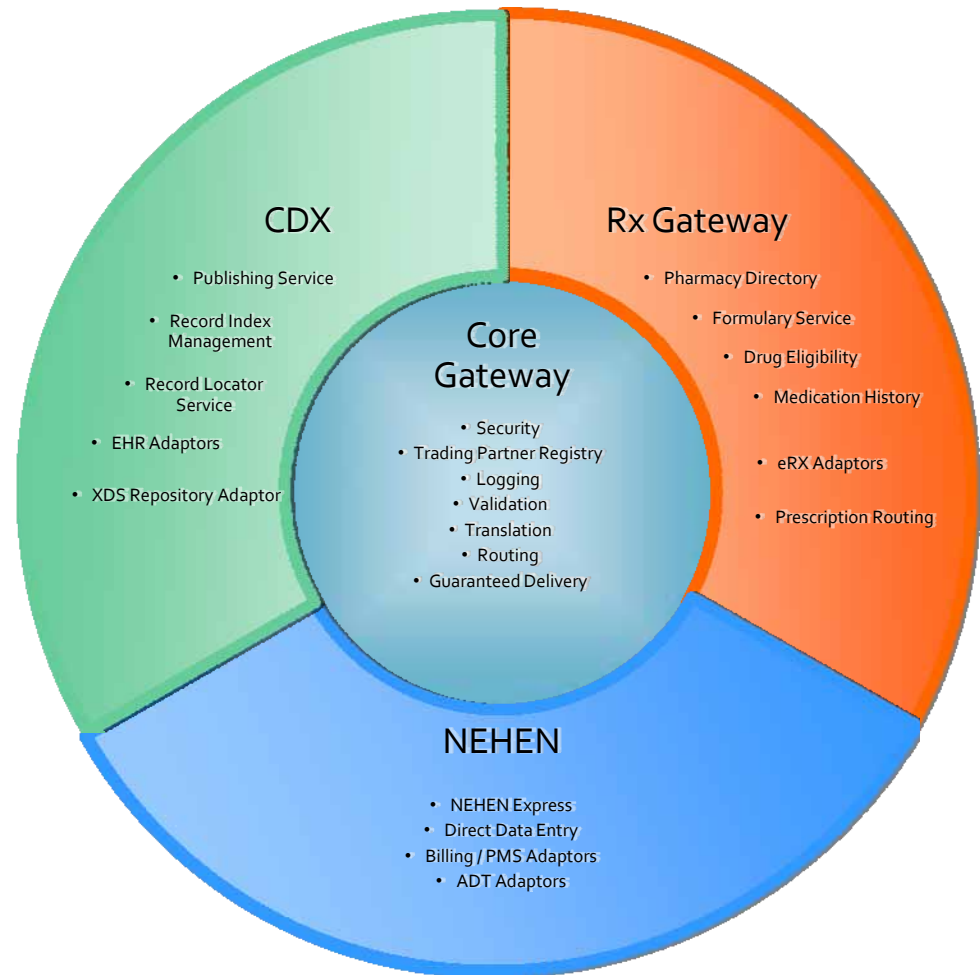
HITSP Efforts to support ARRA

- ❑ HITSP is focusing the energies of its volunteers, staff, and leadership on standards and tools mandated by the new statutory requirements.
- ❑ HITSP's “accepted” products to date will be leveraged to create new streamlined electronically published standards guides organized around the ARRA EHR interoperability requirements.
- ❑ The end result will be much more compact, easy to implement, and flexible implementation guidance which supports the meaningful use of EHRs and protection of privacy.

Regional Approaches

Built on a common messaging gateway framework

Placed on the network of each participating institution



Massachusetts Approach to Data Sharing

- Doctor to Doctor
- Doctor to Hospital/Hospital to Doctor
- Community to Community
- Quality Warehouse
- Provider to Payer

Summary

- “Meaningful use” is the processes and workflow that facilitate improved quality and increased efficiency
- HITEP has identified the needed data types to measure quality and continues working on minimum quality data sets
- HITSP has harmonized the standards needed to support HITEP and meaningful use of EHRs