HL7 & Meaningful Use

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Overview

- Overview of Meaningful Use
- HIT Standards and Meaningful Use
- Overview HL7 Standards
- Role of HL7 in Meaningful Use in Implementation
- Evolution of HL7 in Meaningful Use Phases 2 & 3
- Certification
- Summary

Introduction – Meaningful Use of an EHR

- In 2008, the National Priorities Partnership, convened by the National Quality Forum (NQF), released a report entitled “National Priorities and Goals” which identified a set of national priorities to help focus performance improvement efforts
- Among these priorities were patient engagement, reduction of racial disparities, improved safety, increased efficiency, coordination of care, and improved population health
- These priorities have been used to create the framework for “meaningful use” of an electronic health record
- The ultimate goal of meaningful use of an Electronic Health Record is to enable significant and measurable improvements in population health through a transformed health care delivery system.

Background

- **1999 IOM: To Err is Human: Building a Safer Health System**
- **2004 US EO 13335:** Upon publication of EO 13335, President also set an ambitious target for the majority of Americans to have access to electronic health records (EHRs) by 2014
- **2006 US EO 13410: promote quality and efficient delivery of health care through the use of health IT**
- **2009 ARRA (US Stimulus Package Legislation)**
  - **HITECH (The Health Information Technology for Economic and Clinical Health) Act Includes**
    - **Requirement to deliver "Meaningful Use"**
    - **New Requirements for Certification**
- **Specified for Federal programs by CMS (trickle down effect)**
  - **Quality, Cost**
- **EHR-S Functional Model, driven by IOM and created by HL7, available for use**

Meaningful Use - A Key Component of HITECH

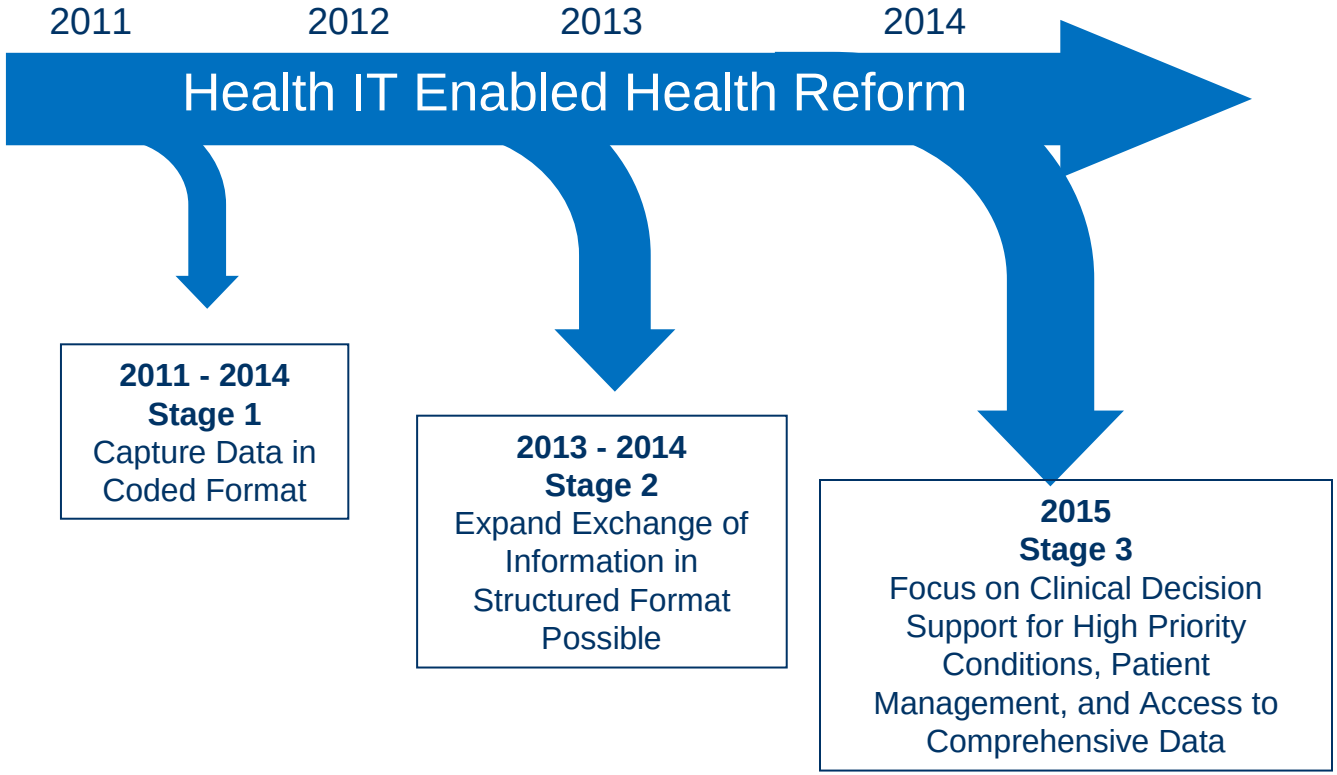
- HITECH was signed into law on February 17, 2009 as part of ARRA ("US stimulus package")
- HITECH a part of ARRA - $19.2 billion in recovery designated to modernize the health care system
  - Promoting and expanding the adoption of HIT by 2015.
- HITECH establishes programs under Medicare and Medicaid with incentive payments for the Meaningful Use of EHR
- Health care providers, software vendors, and health IT consultants are all impacted by the HITECH Act.
  - Transformational legislation anticipating expansion in PHI (exchange in protected health information)
  - Widens HIPAAs privacy and security protections, legal liability for non-compliance and EHR "meaningful use"
- July 28, 2010: Final Ruling on Meaningful Use
  - http://edocket.access.gpo.gov/2010/pdf/2010-17207.pdf

Meaningful Use – What Does It Mean?

- HITECH rewards the "meaningful use" of health IT and not the purchase of health IT.
- Key components
  - Tracking key patient-level clinical information in order to give health providers clear visibility into the health status of their patient populations
  - Applying clinical decision support designed by health care providers to help improve adherence to evidence-based best practices
  - Executing electronic health care transactions (prescriptions, receipt of drug formulary information, eligibility checking, lab results, basic patient summary data exchange) with key stakeholders
  - Reporting a focused set of meaningful care outcomes and evidence-based process metrics (for example, the percentage of patients with hypertension whose blood pressure is under control), which will be required by virtually any conceivable new value-based payment regimes.
- Evidence of Meaningful use provides financial incentives to "Eligible Providers" and "Eligible Hospitals"

Meaningful Use - 3 Stage Implementation

- **Meaningful use implemented in 3 Stages**
- **All "Eligible Providers" and "Eligible hospitals" must achieve meaningful use by 2015.**



Meaningful Use – Incentive Eligibility

- CMS controls EHR Incentive Program through regulatory power
  - Defines the provisions for incentive payments to eligible professionals and hospitals participating in Medicare and Medicaid programs that.
- Incentives a provided to cover costs for acquiring, using and maintaining a certified EHR
- Incentive payments are only available to the following providers
  - Eligible professionals (EPs) & eligible hospitals (Medicare, Medicaid)
  - Meet or exceed specified Medicaid volumes
  - Adopt and meaningfully use certified EHRs

Providers	Eligibility Requirements	
Children's Hospitals	All	+ Meaningful Use
Acute Care Hospitals	10% or greater Medicaid	
Federally Qualified Health Centers	30% or greater Needy Individuals*	
Rural Health Clinics	30% or greater Needy Individuals*	
Non-hospital Based Professionals	30% or greater Medicaid	
Non-hospital Based Pediatricians	20% or greater Medicaid	

Implementation - Incentives

Incentives available to providers who use a certified EHR to improve the overall quality of healthcare delivered by demonstrating achievement of a series of objectives, including but not limited to:

- Entering orders, medications etc in CPOE
- Maintaining problem lists in ICD9-CM or Snomed-CT® coding
- Maintain active medication list and electronic prescribing
- Recording vital signs, smoking status
- Receive and display lab results encoded with LOINC® codes
- Generate patient lists based on specific conditions and generate patient reminders
- Provide patients with electronic copy and electronic access to their record and discharge instructions
- Generate a clinical summary for each visit
- Exchange clinical data with other providers
- Protect the information, encrypt it and record disclosures

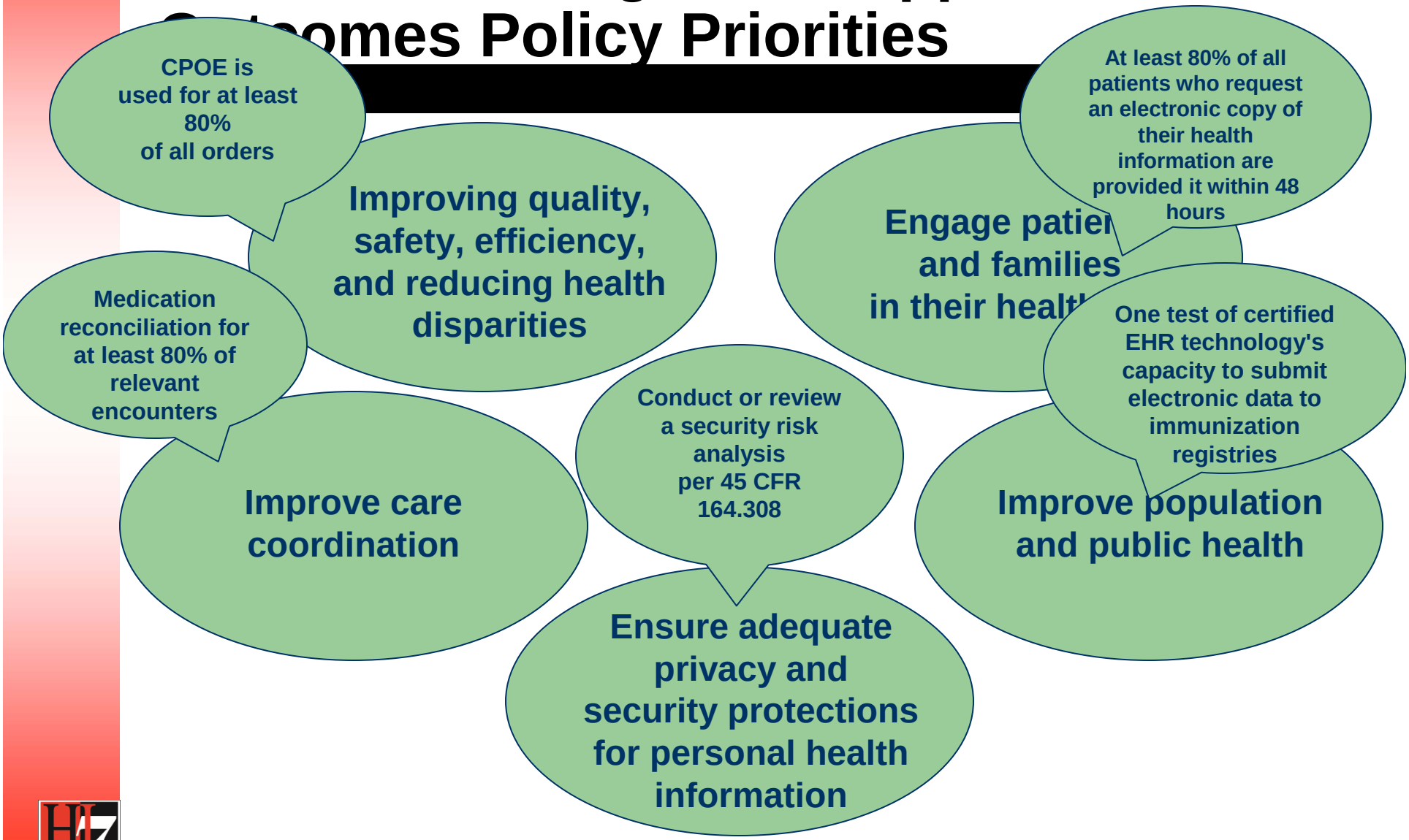
Meaningful Use – Quality Reporting

- **Stage 1 meaningful use criteria**
  - 1) capturing health information in a coded format, 2) using the information to track key clinical conditions; 3) communicating captured information for care coordination purposes; and 4) reporting of clinical quality measures and public health information.
- **Stage 2 criteria will be defined by end 2011 and expand on Stage 1**
  - Focus on disease management, clinical decision support, medication management, support for patient access to their health information, transitions in care, quality measurement, research, and bi-directional communication with public health agencies.
  - May apply to both the inpatient and outpatient hospital settings.
- **Stage 3 criteria will be defined by the end of 2013.**
  - Focus on achieving improvements in quality, safety and efficiency, focusing on decision support for national high priority conditions, patient access to self-management tools, access to comprehensive patient data and improving population health outcomes.

4 Categories of Meaningful Use Information Standards

Content Exchange Standards used to share clinical information: – clinical summaries – prescriptions – structured electronic documents	**Vocabulary** Standardized nomenclatures & code sets for: – clinical problems and procedures – medications – allergies
Transport To establish a communication protocol between systems that is – common – predictable – secure	**Privacy and Security** Standards that support: – authentication – access control – transmission security

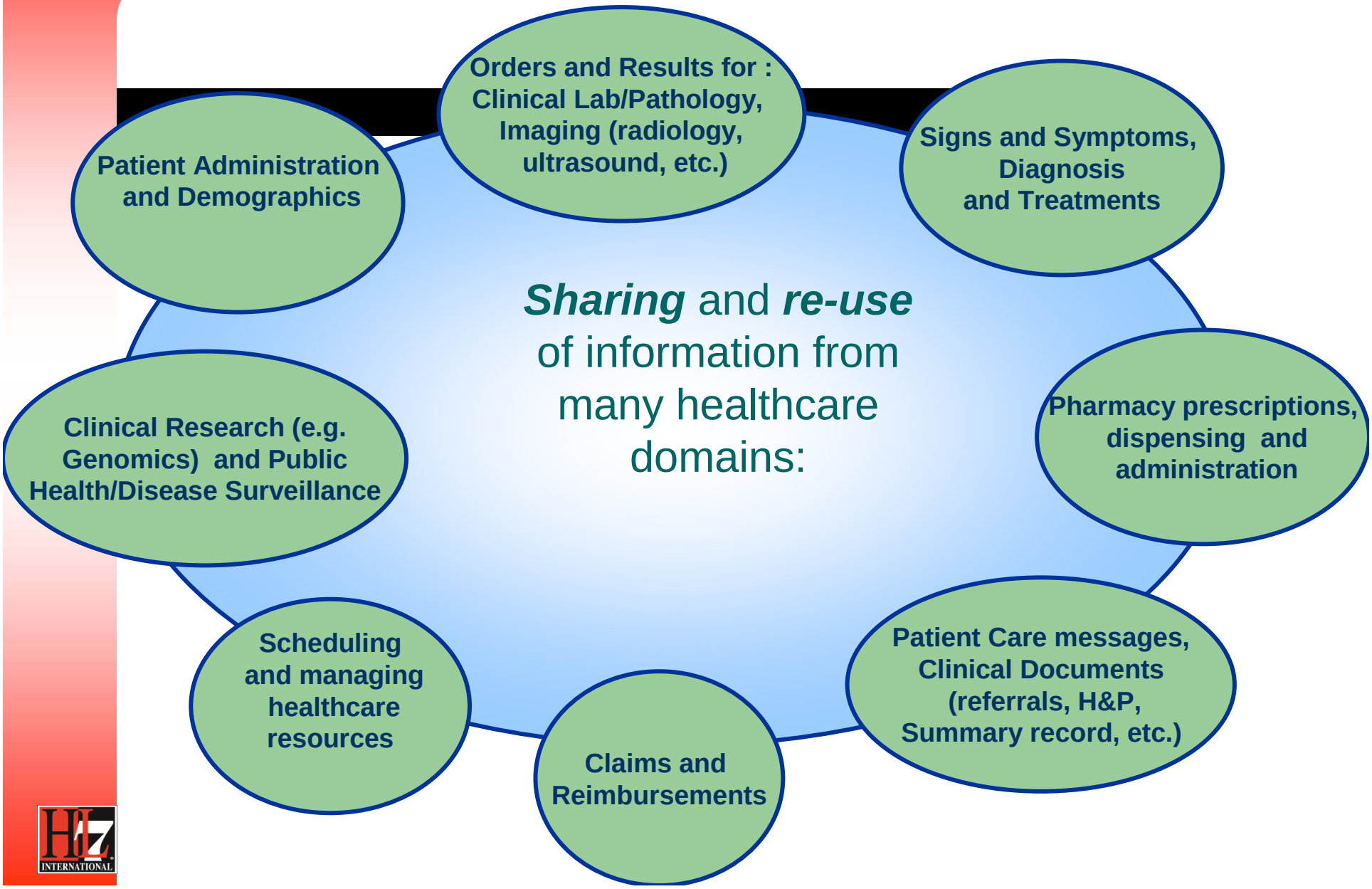
Standards Categories Support Health Outcomes Policy Priorities



HL7 One of a Range of Healthcare Standards Improve Patient Care Delivery

MPE1

A Family of Standards for EHRs



HL7 Standards Specified in Meaningful Use

- HL7 V2
- HL7 CDA
- Certified EHRs – certifying criteria's based on HL7 EHR-S FM (Electronic Health Record-System Functional Model)
- Quality Measure & Reporting

HL7 Standards Specified in Meaningful Use

- HL7 V2
  - Version 2.5.1 for the submission of lab results to public health agencies.
  - Version 2.3.1 or Version 2.5.1 for submitting information to public health agencies for surveillance or reporting (excluding adverse event reporting).
  - Version 2.3.1 or Version 2.5.1 for submitting information to immunization registries as the content exchange standard and the CDC maintained HL7 standard code CVX—Vaccines Administered as the vocabulary standard.
  - Version 2.5.1 Implementation Guide for Electronic Laboratory Reporting to Public Health when HL7 Version 2.5.1 is used for reporting lab results to public health agencies
- HL7 CDA
  - Continuity of Care Document (CCD), a Version 3 standard based on the HL7 Reference Information Model, as one of two options for content exchange standards for the receipt of a patient summary record.

Templated CDA: Phases 2 & 3

- Streamlined standards development
  - Reusable building blocks.
- Streamlined standards implementation
  - Implement once, deploy often.
- Modular and reusable
  - Templates (e.g., blood pressure, discharge diagnosis) can be repackaged with other templates in any number of CDA implementation guides.
- Core component of CDA's "incremental interoperability" strategy
  - Begin with simple CDA, and add templates as they are prioritized.

Summary

- HL7 specifications are broadly required in Meaningful Use Stage 1
- HL7 provides a solutions for a seamless transition to later stages of Meaningful Use
- HL7 continues to collaborate with the Office of the National Coordinator within the Standards & Interoperability Framework to facilitate implementation of many solutions
- HL7 innovation will pave the way for more accelerated and more simplified transition to Stages 2 and 3

HL7 & Meaningful Use

Q & A

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