CQF Charter and Members

Challenge Statement

Clinical decision support (CDS) and electronic clinical quality measurement (eCQM) are closely related, share many common requirements, and are both in support of improving health care quality. However, the standards used for the electronic representation of CDS and eCQM have not been developed in consideration of each other, and use different approaches to patient data and computable expression logic.

	Quality Information	Computable Expression Logic	Metadata
Clinical Decision Support	• Virtual Medical Record (for both physical and logical models)	• CDS Knowledge Artifact Implementation Guide	• CDS Knowledge Artifact Implementation Guide·Decision Support Service
Electronic Clinical Quality Measurement (eCQM)	• Quality Reporting Data Architecture (for physical model)·Quality Data Model (for logical model)	• Health Quality Measure Format (for physical model)·Quality Data Model (for logical model)	• Health Quality Measure Format

It is currently difficult to share logic between eCQMs and CDS interventions. Adhering to different standards places an additional implementation burden on vendors and providers with homegrown systems. Burdens on vendors and providers include the following:

- A CDS intervention author cannot easily re-use the work of an eCQM developer or vice versa.
- An electronic health record (EHR) system that supports both CDS and eCQM will need to map its native data format to two different data standards and to implement computation capabilities for two different logic expression standards.

Harmonization of the CDS and eCQM standards is required to reduce implementation burdens, promote integration between these two domains, and facilitate care quality improvement.

Scope Statement

The scope of this initiative includes the following:
1) To identify, define, and harmonize electronic standards that promote integration between CDS and eCQM in the areas of:

- Metadata: Identify common metadata across the two domains and harmonize the representation of that metadata.
- Quality Information Data Model: Develop a common quality information data model that supports the requirements of both eCQM and CDS.
- Logical Expression Language: Develop a common expression language that can be used to define both CDS and eCQM logical expressions.

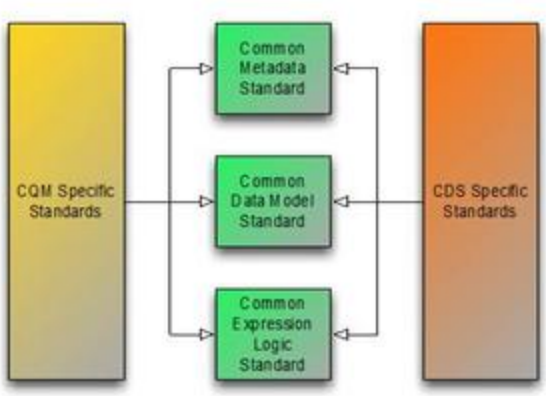
2) To refactor existing CDS and eCQM standards to utilize the harmonized standards and, where possible, resolve current known limitations in these standards.
3) To the extent possible, to pilot the standards and refine them accordingly.
4) To engage the clinical quality community to optimize the rigor and usability of harmonized CDS and eCQM specifications, with the ultimate goal of improved patient outcomes.
5) To support the balloting and publication of the harmonized standards with the Health Level Seven International (HL7) standards development organization.
6) To discuss implications for current implementers.
7) To support emerging/leading edge approaches to eCQM and CDS, to the extent possible given available resources and priorities.
8) To support adoption of eCQMs across regulatory agencies.

All artifacts in the original scope of the base standards are in scope. For quality measures, this includes intermediate and clinical outcome measures as well as trending. Patient reported outcomes are also potentially included within scope.

Out-of-scope items will be identified by the Clinical Quality Framework initiative team during the discovery phase.

Value Statement

Much of the standards harmonization work is already underway in HL7 work groups. The Clinical Quality Framework ONC initiative will promote wider visibility into the standards under development and provide additional implementation-based feedback, leading to more robust specifications.



CDS and eCQM are complementary and essential components of clinical quality improvement (CQI). Harmonizing the electronic standards used for these two domains and developing a common Clinical Quality Framework will have a number of important benefits, including the following:

- Reduced implementer burden with regard to time and cost.
- Increased re-use of eCQM artifacts in CDS and vice versa.
- Improved standards quality through the unification of community effort.

Community involvement in the harmonization of the eCQM and CDS standards gives participants the following:

- The ability to accelerate the standards development process.
- Early access to standards under development for internal prototyping, etc.

Furthermore, implementation-based feedback will enhance the quality of the standards that are developed. Ultimately, the work of the CQF initiative will facilitate the achievement of improved clinical quality and outcomes.

Target Outcome

- Harmonized standards for representation of quality improvement (CDS and eMeasures) artifacts and for exchange of data related to quality improvement.
- Alignment with Meaningful Use and other related regulations.
- Unification of the existing CDS and eCQM standards communities.
- Broader visibility into the harmonized standards being developed in HL7.
- Incorporation of implementation-based feedback into CDS and eCQM standards development activities.

Expected Deliverables

- Project Charter
- Use cases and functional requirements
- List of relevant standards and stakeholders
- Harmonized standards for the domain
- CDS and eCQM standards refactored to use new harmonized standards
- Implementation feedback report
- Completion of pilots that demonstrate one or more use cases
- Report on lessons learned and experience gained during pilots

Relevant Standards and Stakeholders

Relevant Standards, Schemas, Formats, Terminologies, and Value Sets

- Data Model

– C-CDA (Consolidated Clinical Documentation Architecture)
– CIMI (Clinical Information Modeling Initiative)
– FHIM (Federal Health Information Model)
– ebRIM/ebRS
– HL7 Care Record
– HL7 FHIR
– HL7 HQMF
– HL7 RIM
– HL7 v2.5.1
– QDM (Quality Data Model)
– QRDA (Quality Reporting Documentation Architecture) I, II, III
– vMR (Virtual Medical Record)

- Security Layer

– TLS+SAML
– TLS+OAuth2
– S/MIME

- Transport Layer

– MU2 ModSpec RTM
– SOAP (IHE SOAP)
– RESTful (IHE mHealth)
– Direct
– HTTP
– SMTP

- Knowledge Representation

– ArdenML
– Arden Syntax
– AHRQ eRecommendations Format
– CDSC L3
– CREF
– HQMF (Health Quality Measure Format)
– HL7 CDS Knowledge Artifact Specification
– GELLO
– GEM (Guideline Elements Model)

- Terminologies and Value Sets

– IHE Sharing Value Sets
– SNOMED CT, LOINC, ICD, CPT, RxNorm, NDC, etc.
– Value Sets Used in eCQMs

- Other Relevant Standards

– HL7 Decision Support Service (DSS) Specifications
– HL7 Context Aware Information Retrieval (InfoButton)
– HL7 Model Interchange Format
– IHE Care Management Profile
– IHE Retrieve Clinical Knowledge Profile (Profile for InfoButton)
– IHE RFD (Retrieve Clinical Format for Data Capture)
– IHE RPE (Request for Procedure Execution)
– IHE Request for Clinical Guidance Profile (an implementation of HL7 DSS)

Relevant Stakeholders

- Content and Guideline Creators (such as but not limited to):

– Academic and Community Provider Organizations
– Content Publishers
– HIT Vendors
– Medical Research Organizations
– Medical Societies
– Patients (PGHD – Patient Generated Health Data)
– Pharmaceutical and Medical Device Companies
– Public Health Agencies and other Government Agencies (CDC, NIH, NLM, FDA, etc.)
– Standard Terminology Suppliers

- Content Integrators (such as but not limited to):

– Clinical Decision Support Consortium
– Content Publishers who offer CDS services
– Content Implementers (i.e. consulting firms)
– HIT Vendors
– HIEs
– HISPs (Health Information Service Providers)
– OpenCDS
– Providers implementing clinical content in an HIT system
– Registries (e.g., professional association registries)

- Content Users (such as but not limited to):

– Case Managers
– Compliance, regulatory, and legal entities
– Home Health Agencies
– Patients
– Payers and their agents involved in revenue cycle
– Practitioners
– Provider Organizations (including VA and DoD)
– Public Health Agencies
– Pharmacies and MTM Services
– Social Security Administration (SSA)

- Standards and Schema Development Agencies (such as but not limited to):

– ASTM (American Society for Testing and Materials)
– CDSC (Clinical Decision Support Consortium)
– GLIDES (GuideLines Into DEcision Support)
– HITSP (Health Information Technology Standards Panel)
– HL7 (Health Level Seven International)
– IHE (Integrating the Healthcare Enterprise)
– NQF (National Quality Forum)
– OMG (Object Management Group)

- Quality Measurement Entities (such as but not limited to):

– AHRQ USHIK (Agency for Healthcare Research and Quality United States Health Information Knowledgebase)
– AMA-convened Physician Consortium for Performance Improvement® (PCPI®)
– ANA (American Nursing Association) NDNQI (Nursing Database Nursing Quality Indicators)
– BTE (Bridges to Excellence)
– CDC (Centers for Disease Control and Prevention)
– CMS Hospital Inpatient Quality Reporting System
– CMS Hospital Outpatient Quality Reporting System
– CMS/PQRS (Center for Medicare and Medicaid Services, Physician Quality Reporting System)
– NCQA (National Committee for Quality Assurance)
– NQF (National Quality Forum)
– OFMQ (Oklahoma Foundation for Medical Quality)
– QOPI (Quality Oncology Practice Initiative)
– The Joint Commission

Potential Risks

1.Given the aggressive timeline, a schedule delay in one item may have significant downstream scope and schedule impact.

- Mitigation/Response: Prioritize activities and leverage community expertise.

2.Additional review and implementation-based feedback may introduce delays into the development of harmonized standards.

- Mitigation/Response: Review and implementation feedback are critical to the quality of standards; the benefits outweigh the risk.

3.Implementation and piloting of non-final standards may result in “throwaway” work.

- Mitigation/Response: Implementation feedback is critical to the quality of standards; the benefits outweigh the risk.

4.Vendors’ focus on Meaningful Use activities may impact their ability to participate in pilots.

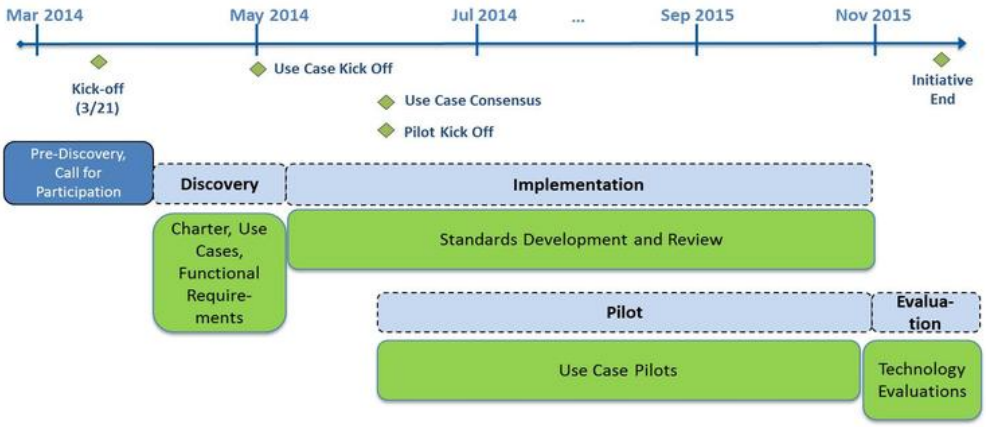
- Mitigation/Response: Focus on items already in EHR certification criteria (at least proposed), actively engage with vendors, and make tools and resources (e.g., an open-source environment) available to them to make participation easier and beneficial.

Additional risks and mitigations may be identified during discovery phase.

Members

Timeline

Mar 2014: **Pre-Discovery** - Call for participation
Apr 2014: **Discovery** - Charter, use case, and functional requirements development
May 2014-Nov 2015: **Implementation** – Standards development and review
Jun 2014-Nov 2015: **Pilots**
Dec 2015: **Evaluation**



Review

Consensus