**HL7 CDS WG Conference Call**

**20 March 2014, 11:15am-12:30pm US ET**

**Attendees:**
[ ] Tomasz Adamusiak

[X] Chad Armstrong

[X] Jennifer Barrett

[ ] Joe Bormel

[X] Aziz Boxwala

[ ] Thompson Boyd

[ ] Daryl Chertcoff

[ ] Sarah Corley

[ ] Clayton Curtis

[ ] Elitsa Evans

[ ] Robert Freimuth

[ ] Lindsey Hoggle

[ ] Vojtech Huser

[ ] Bob Hussey

[ ] Krishna Gazula

[ ] Chris Johnson

[ ] Ken Kawamoto

[ ] Rosemary Kennedy

[ ] Lester Keeper

[X] Mark Kramer

[X] Thomson Kuhn

[ ] Eric Larson

[X] Victor Lee

[X] Stacey Marovich

[X] Christy May

[ ] Rob McClure

[ ] Clem McDonald

[X] Chris Melo

[ ] Maiko Minami

[X] Bernadette Minton

[ ] Mark Monterastelli

[X] Alicia Morton

[X] Claude Nanjo

[ ] Lisa Nelson

[X] Jamie Parker

[X] Anne Pollock

[X] Divya Raghavachari

[X] Bryn Rhodes

[ ] Mark Roche

[ ] Virginia Riehl

[ ] Martin Rosner

[X] Julie Scherer

[ ] Atanu Sen

[ ] Mark Shafarman

[X] David Shields

[ ] Julia Skapik

[X] Howard Strasberg

[ ] Rita Torkzadeh

[ ] Serafina Versaggi

[ ] Julia Xu

[X] Cathy Welsh

[ ] Su-Hsiu Wu

 **Minutes:**
- Created initial draft/strawman comments on 2015 Voluntary EHR Certification NPRM (<http://www.regulations.gov/#!documentDetail;D=HHS_FRDOC_0001-0532>), as related to Health eDecisions

* Strawman notes copied below
* Will review further in next Wednesday’s 4pm ET CDS WG call. Also this Thursday’s 3pm ET CDS WG call as time allows. Will also seek to send out a cleaned-up version of this for review.
* Comments welcome; should be addressed to CDS WG list serv and/or Ken Kawamoto.

Errata:

* Make sure to use the latest official HL7 names for artifacts
* Recommend referring to Release 1.1 of the UC1 and UC2 implementation guides

Big picture thoughts:

* There should be ideally the set of standards at the beginning of a path towards bidirectional knowledge exchange. Not just import. Also export. Also, the standards and initiative will hopefully leading to a community and resources available for the wider community that can facilitate this process of bidirectional knowledge exchange.
* Should align with quality measurement. E.g., create artifacts whose implementation should allow fulfillment of quality metrics also included in EHR certification requirements and MU. They are not exactly the same requirements, though. A lot of EMR vendors do provide quality measure reporting as well as upstream CDS. This is important because it closes the feedback loop for content creation and impact evaluation, enhancement. See if evidence-based content actually changes outcomes.
* There are other use cases where things like documentation templates are useful. EMSD S&I Framework, need to collect prior authorization information. Should align with “non-CDS” use cases where these standards could be used. Kill 2 birds with 1 stone.
* When we started HeD, we talked about other types of artifacts like care plans, relevant data display, etc. So whether here or in HL7/S&I, should perhaps consider where we can take this next.
* Seems obvious, but should focus on high value (big bang, low cost) use cases. Identifying those and focusing on them may be useful. E.g., high frequency interaction types (immunization), high cost populations (e.g., AMI, IHD, asthma, COPD), simple and common/bread and butter clinical cases and use scenarios (e.g., “simple” order sets vs. complex ones).
* Focus on where patient data is going to add the most value. More advanced clinical logic is valuable, but can provide a lot of value with simple interventions using basic, commonly available data. Need to focus on where data is ubiquitous and relatively clean, like billing data, medication data, lab data, problem list data, allergies, etc., required by regulations already including MU. Another example would be CDS using CCDA data. Great place to start.

Overall comments on direction:

* Agree with starting with making this optional and piloting/enhancing underlying standards
* Want to really test these out in the field, get more EHR piloting. So we should figure out a way to encourage testing, so that standards can be enhanced moving forward.
* Approaches to encouraging use/testing of these standards would be beneficial.

What could be done to help encourage/facilitate uptake/further piloting of these standards:

* Provision of artifacts/services to “seed” this domain provided/acquired/made available by the government. E.g., real ECA rules, real order sets, real documentation templates, demonstration services with real content (e.g., a CDS guidance service server that meets UC2 requirements and provides CDS guidance). Reference implementations/test services/test content. Not intended for production use. [Provide artifacts to seed the domain]
* Reference implementations would ideally include the whole ecosystem, including the artifact/service consumer side, (?such as a virtual image of an environment where an open-source EHR has been configured to utilize these artifacts properly). [Provide reference implementations]
* Provide tooling around authoring
* Provide other support resources, such as documentation, tutorials, etc.
* Support both sides of the equation – consumption and production, potentially tools for both sides
* Requirements are on the consuming side, but want support for production side as well as to stimulate adoption

Overall comments on scope:

* Should export of artifacts be put in scope 🡪 could be common use case for health systems with multiple facilities

Other general comments:

* Need to clarify expectations of how this proposed criterion will be affected by ongoing efforts to harmonize CDS and eCQM standards (S&I Clinical Quality Framework initiative)
* Proposal/suggestion: state that Release 1.1 or later of the UC1 and UC2 implementation guides are used
* The data layer and integration is critical. For example, local codes may need to be mapped to standard codes. Testing/verification would need to occur to spec. level, including templates.

Comments on specific questions:

* What specifically ONC should focus on when it comes to testing and certification for acceptance and incorporation of CDS Knowledge Artifacts;
* Provide sample artifacts with expected results and use case scenarios for validation? E.g., ECA rule on diabetic A1c use, test scenarios that should result in firing and not, and verify this behavior occurs in system.
* Data-level interoperability may require mapping to standard codes and use of appropriate vMR templates. Will require transformation of data to standard codes. For UC2. For UC1, may be a bit different.
* Issue: whether to allow use of artifacts with local terminology mappings. Probably should allow that to be okay? I.e., we probably should be fairly relaxed about where the mapping occurs.
* For UC1, may be possible to “code to the test”
* The feasibility of implementing the interface requirements defined in the Decision Support Service IG to make an information request, send patient data, and receive CDS guidance in near real-time;
* This approach has been validated for certain use cases, e.g., immunization CDS guidance for ICE/eClinicalWorks.
* The general approach of using services has been adopted by some large vendors such as Epic
* With the definition of templates, etc., in DSS IG, this should be quite feasible
* This would be even more feasible if we defined interaction types with specific I/O requirements (e.g., immunization CDS with this input and this output, drug-drug interaction with this input and this output, etc.).
* The ease with which EHR technology could be developed to consume CDS Knowledge Artifacts;
* There have been several pilots of this conducted under the HeD initiative which showed feasibility
* Motive does have an HeD-based implementation of CDS artifacts that is working/in the marketplace with an EMR vendor. This has been demonstrated to be feasible.
* It depends on how this is done. If it is point-to-point, definitely feasible. If it is done in a highly interoperable, one-side-not-knowing-the-other, there will be challenges in terms of aligning terminologies and data models. Ideally, there would be tooling and so on to facilitate this type of mapping. Value set definitions, templates, national order catalog, etc. will be important to make this truly many-to-many, uncoordinated interoperability.
* This does depend on the interaction type. Esp. for more complex interaction types, may be more challenging.
* To help reduce complexity, will require real involvement by organizations TBD to develop standard value sets, templates/profiles, etc., registry of these artifacts, tighter specifications at the data level.
* Whether we should work to distinguish between *complex* CDS Knowledge Artifacts and *simple* Knowledge Artifacts and to require only acceptance and incorporation of simple Knowledge Artifacts in the 2015 Edition, with increasing expectations of more complex capabilities in future editions;
* Hard to make such a distinction. E.g., simple order set (organization, etc.). These types of distinctions do not exist in terms of at least HL7 profiles or equivalents. Work would be needed to define such distinctions. This could be a useful activity. E.g., an HL7 CDS KA IG profile that defines a “simple order set” as two levels of nesting with only proposals, no conditional logic. E.g., an HL7 CDS KA IG profiles that defines a “simple reminder” that only provides a text message back rather than structured output objects. In original HL7 Order Sets DSTU, had 4 levels of order sets in increasing complexity, could review.
* Could demonstrate the use of these standards to achieve the ability to either use an artifact or service. I.e., sufficient to demonstrate usage. They can decide how far to take it. Allow the implementing groups to define what is simple/easier v s. complex/harder. Similar to saying “need to implement at least X rules” without specifying them.
* Maybe implement at least X order sets, X documentation templates, X ECAs, X services (where X might be 1-6), of the organization’s choosing.
* Maybe total # of CDS rules/interventions is the best way? Instead of saying it must be a particular type. Or perhaps X from UC1 and X from UC2? Or X from UC1 or 2? Perhaps this kind of requirement is more for the provider. EHRs should be able to support all?
* The ability to store and auto-configure a CDS Knowledge Artifact in EHR technology; and
* The ability to map the CDS Knowledge Artifact standard to data within the EHR technology (including medications, laboratory, and allergies information).

- Next call:

* 3/20 (Th) 3pm ET