2017-07-12 FHIM/IIM&T (Out of Cycle) Meeting Minutes

July 12, 2017

**Facilitator: Nona Hall**

**Meeting Date:** 2017-07-12; 9:30 - noon

**Location:** Virtual Meeting: 1 877 367 4913, CODE 8056720#; DCS available

**Additional Resource:** Given this may be new for certain attendees, an Executive Summary of the HL7 Integration of Information Models and Tools is offered at the end. (INFO)

# Agenda (Nona)

* + - 9:30 - 10:00 This is an information sharing meeting to augment previous efforts and responses aimed to address the question: Why the HL7 IIM&T (its construct) is an essential foundation even in the midst of an EHR Cerner Commitment? The first 30 minutes is there to ensure everyone is solid on the premise of the HL7 IIM&T. We know that for some invited today this may be your first exposure.
    - 10:00 -11:00. We’ve accepted the offer from Richard Esmond one of our SMEs to share his experiences in dealing with this along with any others from our team able to attend. Attendees will present their perspective; be the devil's advocate based on what they’ve heard. It’s important to have as complete a response to this question as possible. We believe answering this question is a prerequisite to moving then into fully appreciating the methodology and how best to integrate. As often remarked, those closest to this field believe it has merit regardless of acquisition strategy
    - 11:00-NOON Participate in what is a HL7 Cancer DTR (Diagnosis Treatment Research) Workgroup Meeting. Mark Kramer / Richard Esmond as co-chairs of this newly formed group have invited attendees to gain a first-hand example of how information modeling has influenced a new concept at HL7 of a Product Family.

# Notes

**Meeting Objective (Nona):** Why the HL7 IIM&T (it's construct) is an essential foundation even in the midst of an EHR Cerner Commitment?

* 1. **Stan Huff: (**Shared experiences with Cerner "go live" at Intermountain at 22 hospitals and >100 clinics, multiple go-lives, different regions. We rolled out region-by-region; as that is done, for example, with 8 go-lives in a region.)
     + Issue (Stan Huff): It is paramount to have a discipline that is outside of Cerner software and protects you from what will otherwise disrupt consistency. Note that each hospital is different. Each go live brings in new needs; new hospitals; some rural; some tertiary; some with different people. You are adding new configuration to the system. It is easy to get unrecognized redundancy in the configuration of the system. There’s no protection in the Cerner configuration tool to keep you from redundant codes from the same information. Different people adding to the configuration may not know they are adding new data elements that already exist (human error). Two names for Ht Rate, BP, etc can happen; missing part of the name can then happen and can then be missed when building clinical decision support bus rules. Almost any kind of data can be entered differently. Again, something outside of Cerner has to exist to ensure such discipline is sustained.
     + **Issue (Stan Huff):** Not sure how DoD or VA will be doing Configuration. It can be different from each other. Strategy could be different. Some percentage in turn will not match up.
     + **Issue (Stan)** VA and DoD have a portion of their beneficiaries are cared for via the private sector care and therefore sharing with those community hospitals is a must but it doesn’t happen automatically, e.g., need for C-CDA. It’s important to know what’s the structure of that information coming in via those C-CDA. External resource (information model) will lend consistency to the data.
     + **Issue (Stan Huff)** You will have SW interests; you will want SW to support Decision Support Logic and Cerner does not have all the SW to support that decision support logic. You need to be part of that larger community to pull in those options.
     + **Issue (Stan Huff)** Note, there will be much public scrutiny regarding adhering to schedules with Cerner acquisition with DoD and VA. Without an external discipline, DoD, VA and their partners’ data elements will not match up when exchanged. This impacts DSS, population analytics, etc.
     + **Issue (Stan Huff):** VA and DoD are not the only systems that need to be considered; VA patients are often seen outside of VA. Must be able to exchange data between VA and non-VA, and although Sequoia and CCDA helps, that will not be adequate, will not make sure content exchanged matches up. Need the structure AND content the same.
     + **Issue (Stan Huff):** Cerner does not have the capacity for all software; there needs to be a Cerner compatible marketplace. Neil Patterson of Cerner states Cerner is a platform for third parties who can develop needed applications; where, Cerner cannot satisfy everyone's needs. For example, Cerner will not supply DSS.
     + **Issue (Stan Huff**): Intermountain Healthcare has 20 years of enterprise data warehouse coded data; They had to put in a lot of manual work since Cerner was not configured to enable the use of all of it; in fact some previously coded data is now text. So we now have a decrease in data quality in terms of ability to access and use. We did need to do much manual coding of the data for use in Cerner.
       - Recommendation Cerner configurations are all important and needs to be written into the requirements.
       - Customers need to require venders to put services and standards within their systems; where, customers must be willing to pay for the services and standards.
  2. **Issue (Richard Esmond):** Cerner is supporting SMART on FHIR; where, Cerner needs to support common data elements to effectively support SMART on FHIR. This presents another place where the HL7 IIM&T is engaging via FHIR to address data inconsistencies.
  3. **Stan Hufnagel:** When harmonizing FHIM with CIMI (as part of the HL7 IIM&T), that has changed FHIM in some ways; made it different for users of FHIM. At first what appeared as rework, it made certain things of the modeling simpler
  4. **Galen Mulrooney**: FHIM started as more as conceptual models. Now it is aligned more with CIMI. Being closer to an implementation model via this work, but in working with the implementers of FHIM there was an adjustment/education period but they are not unhappy.
     + **Issue (Galen):** Need Cerner vocabulary initiative based on CIMI-SOLOR; where, these decisions are currently ad-hoc; where, we need the right people participating need to require right semantics. IT folks are implementing and may not align with data stewards.
     + **VA and DoD** have engaged but the right people are in fact important to be not only the functional and business but also the IT community that are doing the Cerner installs
     + **Nona:** Agreement offered and stakeholder base is fairly representative and will continue to be expanded to gain broader appreciation for HL7 IIM&T
  5. **Julia Skapik**
     + **Issue (Julia Skapik, ONC)** We need to aggregate for pop health perspectives, medical device, quality space, safety, adverse events.
     + **Issue (Julia Skapik, ONC)** Data dictionaries (necessary to validate with) are proprietary, e.g., Cerner. In turn, we need a public data dictionary. Exchange purposes as said before are key. For clinician to optimally enter data to know what they mean they have to understand via a good set of data elements fully understood going from system to system
     + **Stan Huff:** Liked and appreciated the add on (quality data) dimensions offered. Sharing with quality registries and also with Public Health is important and has to be done in standard ways. One-offs have to be stopped. Cerner itself has recognized they are not the source of all. Neil Patterson: They wish their platform to be key. They can’t produce all the needed applications. The way it happens now; they collect from the user; they have a much longer list and via prioritization some things are worked; when they return that list is now much longer. Becomes untenable. Instead they bring a focus on their platform to optimize integration in a standard way; integration of applications
  6. **Steve Kator / IPO:** Totally agree with Dr Huff and need for common data models; they are essential for interoperability, population health analytics.
  7. **Mark Kramer**
     + Described that while a great many agree on the computable semantic-interoperability goal; more discussion and agreement is needed on the pragmatics. How do we transform how health care system works, when there are vested interests, training, etc? Who for example pays for this area of interest?
  8. **Nona Hall**
     + This meeting was about gaining more of those points or examples of why this HL7 IIM&T matters; even when an acquisition such as Cerner has been made.
     + Referenced slides to show the background and the modeling, tooling dimensions of this effort such as the fishbone tell a holistic story. This group is clearly doing what they can and where they can and today we wanted to extend one more opportunity to seek responses to this question. Again, this supports moving beyond the legitimacy of the HL7 IIM&T to more time to the actual ways to engage**.**

Note: At this juncture in the morning, the main interest had been addressed and added remarks were welcome related to the HL7 IIM&T effort in general and via the offer to participate in the 11am CA DTR.

* 1. **Richard Esmond**
     + For over 15 years, PenRad focused on breast cancer, resulting in 2k radiology data-elements.
     + We need consistent data points, from standards, e.g., radiologists and oncologists don't collaborate on data elements; where, oncologists are the customers of radiologists.
     + Issue (Richard): Common Data Elements are not harmonized across clinical disciplines, e.g., radiology, oncology, etc.
     + **Issue (Richard):**  Patients need sufficient information to determine if they will "die from" a particular cancer vs. they can "die with" a particular cancer and do not need a radical procedure.
     + This particular formation of a Product Family means for consumers of standards related data (supported via information modeling to translate among CA DTR consumers) appears to be taking hold with other Product Families likely to be initiated.
  2. **Wrap Up:** Everyone was thanked for their attendance and responses to the topic (question) and certainly all related interests. As there are active discussions related to such matters of ‘next steps and strategy’, the interests have direct ties and will be forwarded.

**IIM&T EXECSUM**

July 14, 2017

**Situation**: HL7 CIMI sponsored IIM&T Project #1271’s goal is to maintain a Healthcare Common Logical Information Model CLIM (SOLOR, FHIM/CQF, CIMI) within a model driven development (MDD) tool “stack”, which can create consistent and traceable implementation artifacts, such as FHIR, C-CDA, NIEM.

**Mission:** Patient value (Safety, efficient and effective quality of care) from improve computable-interoperability among healthcare systems through a curated collection of shared/reusable clinical logical information models CLIM (SOLOR, FHIM, CQF, CIMI), model driven development (MDD) tools, FHIR, C-CDA etc. implementation artifacts, which are consistent and traceable to requirements.

**Goal**: Integration of Information Models and Tools (IIM&T) in support of model driven development to provide configuration standards for the Cerner deployment to assure the DoD can exchange data with the VA and outside providers with a minimum of data mapping. The outcome is that VA and DoD will be more able to manage patients wherever they are, wherever they go, inside and outside of the Government healthcare system.

**Objectives**: Computable-interoperability from consistent FHIR, C-CDA, etc. implementation artefacts

* Broad consensus on clinical data elements and value-sets for internal and external use.
* Architectural Framework: Basic Meta Model, Principles, Methodology
* Core components: harmonized SOLOR, FHIM, CIMI-DCMs, CQF
* Model Drive Development (MDD) tools: RQMTs--> FHIM/CQF-->DCMs-->CDA, FHIR, etc.
* Agile development via 4-6 month case studies/pilot tests sprints between HL7 WG meetings.

**POA&M**:

* 2016-01 HL7 Integration of Information Models and Tools (IIM&T) project Investigative Study started
* 2017-01 HL7 approved PSS, skin assessment pilot Project Scope Statement (PSS)
* 2017-03 HL7 approved IIM&T Project Scope Statement (PSS)
* 2017-07-12 SME Touchpoint meeting @ IPO
* 2017-08-01 SME Touchpoint meeting @ American College of Surgeons (ACOS), DC
* 2017-08-01 Cancer Registries meeting @ American College of Surgeons (ACOS), DC
* 2017-08-02/03/04 HSPC meeting @ American College of Surgeons (ACOS), DC
* 2017-09-09 thru 12 HL7 WG meeting, San Diego
* 2018 HL7 Standard for Trial Use STU1
* 2019 HL7 Standards for Trial Use STU2
* 2020 HL7/ISO Standard

**Roles and Responsibilities**:

* **Proponents**: ONC OST, FHA, DoD/VA IPO
* **SMEs:** Keith Campbell, Stan Huff, Julia Skapik, Steve Wagner, Galen Mulroney, Jay Lyle, Rob McClure, Sean Muir, Claude Nanjo, Richard Esmond, Jay Lyle, Susan Matney
* **Facilitators:** Nona Hall and Steve Hufnagel

**Desired Outcomes/Impact**: Consistent and traceable logical information models (LIMs), model driven development MDD tools creating consistent implementation artifacts, e.g., C-CDA, FHIR, etc. for computable interoperability.

**Reportable Milestones & Accomplishments:** <when>, <who>, <category>: Item e.g.

* Sep 2017 HL7 Informative ballot containing Architectural Framework (BMM, Principles, Methodology)
  + Skin Assessment Exemplar
* May 2017 HL7 IIM&T Informative Ballot: (BMM, style guide, clinical statement architype)
* Jun 2017 HL7 IIM&T Project Scope Statement #1271 approved by HL7 TSC.
* Jan 2017 HL7 Comments Only Ballot (draft BMM and style guide)
* Jan 2016 CIMI became an HL7 WG.

**Current Activities:**

* **FY17Q3**: CIMI to become HL7 product family; where, CIMI, manages architectural framework (BMM, Principles, Methodology) and other workgroups own clinical content of their models e.g., patient care.
* **FY17Q3** Skin Assessment example RQMTFHIMCLIM (SOLOR, FHIM, CIMI, CQF) FHIR