

HL7 Work Group Meeting

San Antonio Texas – January 8-14th, 2017

Attendees:

The list is provided in the Appendix.

Monday Q1

Chair:	Nathan Bunker
Scribe:	Rob Snelick
Attendees:	3 Rob Snelick, Nathan Bunker, Frank OEMIG
Quorum:	Yes

1. Discussed and created agenda for May WGM in Madrid – Approved (Frank/Rob): 2-0-0
2. Discussed how the conformance WG should get involved with conformance and profiling FHIR. What should/can we do? Are there any outstanding issues/tasks for our WG? Reviewed current list of FHIR tasks as sent out the week before the meeting--conclusion is that there is nothing assigned to our WG.
3. Projects review: HL7 v2.x Data Types Flavors, have PSS but have not moved this project forward. Universal Conformance project was determined to be valuable but we currently don't have resources to make any progress--tabled. We reviewed and updated the status of all of our project.
4. PBS metrics: we have 2 issues but we are not aware what we are missing. We have not received invites for the FTSD meetings (except 1 which we attended). Note: later discussion revealed that during the past year two more evotes circulated (Feb + July) which we missed to react to.
5. Reviewed, updated, and approved SWOT.

Monday Q2

Chair:	Rob Snelick
Scribe:	Nathan Bunker
Attendees:	5 Rob Snelick, Nathan Bunker, Frank OEMIG, Didi Davis
Quorum:	Yes

1. Reviewed and approved (no changes) DMP (Rob/Frank): 3-0-0
2. Reviewed, updated, and approve Mission charter. (Frank/Rob): 3-0-1
3. Reviewed, updated, and approved 3-year plan. (Rob/Frank): 4-0-0

4. Reviewed GForge tracker items

Discuss the current practice of pre-adoption and versioning in respect to the HL7 conformance model. What do we want to do moving forward? Preparing for discussion for InM.

- How to handle HL7 versions you don't expect?
- How should people use the V2 Code Tables now?

What is driving pre-adoption?

- Version increases trigger costs, implementers want to make small changes instead of investing in a new version.
- Take advantage of new concepts in newer versions without the pain of moving up to a new version.

It's an issue when new profiles are being created. Should profile tooling allow users to add components from other versions? What NIST is seeing is a hodge-podge. What should we recommend?

Some complications occur when using XML structure for HL7 v2. So there is an impact if allowing for pre-adoption if support is needed for XML. HL7 v3 has a similar issue.

It's technically possible to provide support for pre-adoption.

The profile declaration is evolving into a field that has more binding strength than the version number.

Proposed general guidance: If the features you want are in a future version then you should upgrade to newer version. The conformance profile can still make modifications including pulling structures and vocabulary from previous versions. In the end the conformance profile is the governing document.

Version number should state what version is used as the foundation.

Attempt to use the latest code tables for the latest version. Make adaptations to code sets when needed. A good question for vocab.

System accepting the message should try to parse the message. In general non-conformance should not prevent accepting good data.

Backwards/forwards compatibility needs to go into a "Best Practices" document. How to Apply Conformance.

Monday Q3

Chair:	Rob Snelick
Scribe:	Nathan Bunker

Attendees:	3 Rob Snelick, Nathan Bunker, Frank Oemig, Didi Davis
Quorum:	Yes

Pulling out Chapter 2B. Needs a new title: HL7 V2 Conformance Model ?

- Higher level of constraint definitions that cross product families

Frank did a demonstration of the new HL7 v2+ work. He is rendering a new layout to show the HL7 v2 standard. There is a lot of positive feedback with this new approach. It simplifies reading/understanding.

Tuesday Q2

Chair:	Rob Snelick
Scribe:	Nathan Bunker
Attendees:	7 Rob Snelick, Nathan Bunker, Frank Oemig, Raj, Eric Larson, Didi Davis, Richard Ettema
Quorum:	Yes

AEGIS doing a demonstration of their Touchstone software. Richard Ettema went through how the system reads the FHIR profiles and does conformance testing on FHIR servers. This led to a discussion about the code system used in FHIR. FHIR does not use the latest vocabulary work that was done to merge V2 and V3.

Tuesday Q3

Meeting with Infrastructure and Messaging.

Items that need to be discussed:

- Follow up on the proposal to remove concept of "original mode".
 - Resolution: HL7 v2.9 is going to be re-balloted so there is a chance for this to be included. Tony was going take care of this. Conformance should follow up on this.
- Discuss backwards compatibility, what is the standard?
 - Section 2.8 Version Compatibility Definition section describes how to detail of backwards compatibility
 - This section is ambiguous enough to not be helpful. Conformance is not discussed either.
 - This section can't be changed in HL7 v2.9, but it's something that needs to be addressed in HL7 v2+.

- How binding is the conformance on length? Especially on older versions that have statements on length but which may or may not be binding.
 - In 2.3 and 2.4 getting the lengths correct was a major pain. Finally we said “no more lengths”. Later someone said we need a conformance length. This is set for some fields. This happened somewhere in 2.6 or 2.7. Before this the lengths were not binding. When conformance length was added the length for special data elements with a specific defined length became binding.
 - Looking at 2.4.3.4 in HL7 2.2 defines Maximum Length but it is not binding.
 - No good resolution, no good support in older versions for what lengths are binding and which are not.
- How should the current conformance model be used on older versions and profiles?
 - This is pretty well established that the current conformance model can be used on older versions. No discussion here today.
- Policy on pre-adoption, best-practices (likely: don't do it, go to the latest version), data types, vocabulary.
 - PHER has taken a stance that their implementation guide will not pre-adopt.
 - Group feels like this is a good stance to take.
- Should evaluate implementation aspects of versions of standards (systems can get locked into versions and can't support newer versions)

Wednesday Q3

Chair:	Frank Oemig
Scribe:	Nathan Bunker
Attendees:	16 See sheet in separate PDF
Quorum:	Yes

Discussing Implementation Guides

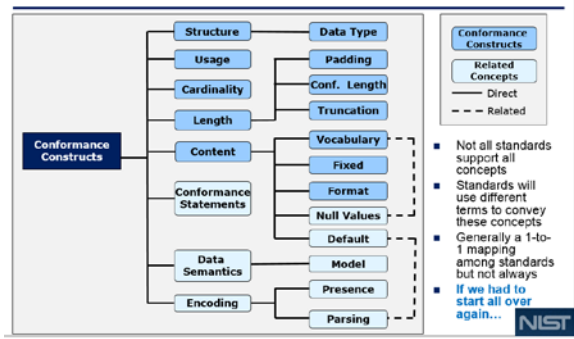
Implementation Guide registry. The styles and content of the IG are different from user to user. Maybe do a demonstration later.

Conformance Rules / Conformance Constructs

Looking at slides from Conformance Tutorial.

Discussing Slide 65

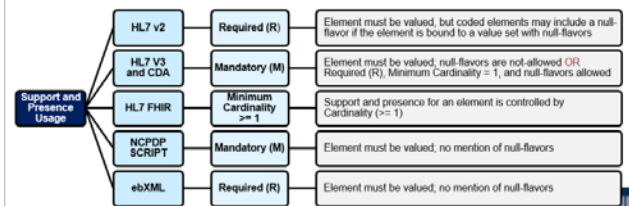
Conformance Constructs



Need to add additional slide to show the relationship between structure and what the data elements can contain.

Support and must be Present

- Implementation must support the element
- Element must be present in the instance
- Allowance for null-flavors depends on the standard

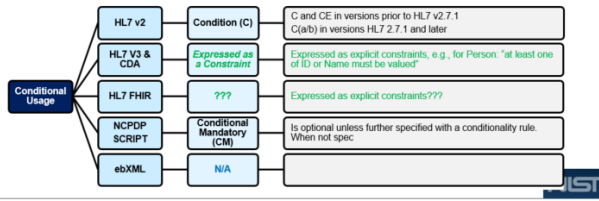


Slicing is closest to the choice boxes of V3.

Should there be a minimum standard of constructs that should be supported? The question should be turned around the other way. The list we have shown before is the list of everything that has been extracted from various standards. Some of these concepts apply to structures made up of different kinds of data elements. The concept doesn't have definite meaning unless you understand the structures. The slide doesn't mean to restrict it to just the data level.

Conditional Usage

- The usage of the data element is determined by the outcome of a condition
- The usage indicator for “true” and “false” outcomes are provided
- The usage indicator resolves to “Support and Presence”, “Support”, or “Prohibited” and can also be “Optional” in non-implementable profiles
- Explicit Condition Predicates should be defined (but are often not in standard specification)
- The Condition Predicate must be computable using the content in the object the Conditional Usage is defined

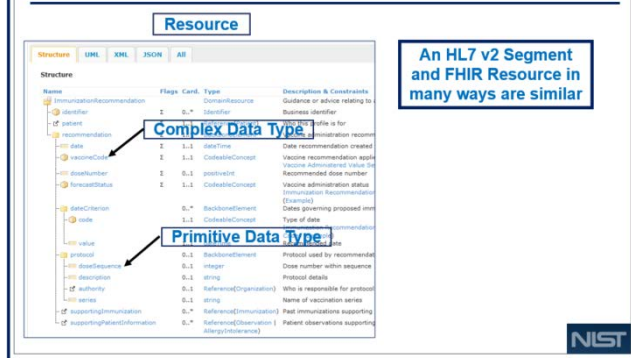


Question about how these conditions are expressed in FHIR: Expressed in FHIR Path and are computable. Here is more information on fhirpath <http://hl7.org/fhirpath/index.html>

Discussing Slicing

Can be more specific. Can say an element repeats n times. Must be at least one member in each group, and of these members and two of these members must comply with these additional constraints.

HL7 FHIR Structure



Need to add Backbone concept to this slide.

Essentially all of our standards are tree structures.

In FHIR a profile is used to bundle resources together just like an HL7 v2 message pulls segments together. Need to discuss the higher level relationships of how things are structured together.

How you compose the resource depends on the paradigm you use the resources. Messaging or documents has larger objects than using REST. On REST the unit of exchange is essentially a “segment”. They reference each other so that works fine.

In FHIR, primitives (datatypes and resources) can have extensions. So they are not completely primitive.

Question about how to handle NULL flavors. In V3 you can have the problems of not getting the data you need. The concern is since primitives can be extended then how do systems deal with this when any field can be extended. Seems like FHIR could have the same problem.

Should expect a lot of implementation guides to be created in FHIR. Which does not help with interoperability. Tabling this question for now.

Vocabulary Concepts		
Term	Definition	Examples
Code	A unique and discrete "identifier" that represents a concept; typically is (and should be) agnostic to the concept it is representing	"M" "2093-3"
Concept	A notion that conveys semantic meaning	"male" "Cholesterol"
Code System	Managed collection of codes that represent concepts used in a particular business or technical area	LOINC CVX
Concept Domain	An abstract notion that refers to a set of related ideas and is essentially a named Semantic Category that serves to help define the meaning of a particular data element	Postal Code Immunizations Gender
Value Set	A collection of codes targeted for a specific use	US Zip Codes
Table	Similar to a code system; often a simple list of enumerated codes representing a concept; used in older standards such as HL7 v2.x	HL70005 for Race in v2.5.1

This slide doesn't show all the attributes. Like case-sensitivity for tables, this is a meta data about tables but it is not included.

Work has been done on vocabulary on the Value Set Binding Syntax project. But there is work to do to map the concepts to each standards.

Vocabulary Mechanics

Patient Identification (PID) Definition Excerpt					Basic Process Summary	
Seq	Data Element	DT	Usage	Value Set	Strength	
7	---	---	---	---	---	1. Analyze data semantics of element for use case
8	Administrative Sex	IS	R	HL70001_EX	Required	2. Assess code system(s) to match semantics and concept domain
9	Patient Alias	X	X	HL70005_EX	Suggested	3. Create value set definition including codes for use case
10	Race	CE	RE	HL70005_EX	Suggested	4. Bind the value set to the element
						5. Assign the strength of the binding
Administrative Gender Value Set Definition					Point	Description
Name		Administrative Gender			1	Coded Element Data Type - Can contain a code
Identifier		HL70001_EX			2	Binding - Link the data element to a value set
Extensibility		Closed			3	Binding Strength - Conformance of the binding
Stability		Static			4	Value Set Definition - Details of the value set
Value		Description	Usage	Code System	5	Name - Long name of the value set
A	Ambiguous			HL70001_v2.5.1	6	Identifier - Used to bind data element to value set
F	Female			HL70001_v2.5.1	7	Extensibility - Indicates if value set can be extended
M	Male			HL70001_v2.5.1	8	Stability - Indicates if value set is static or dynamic
N	Not Applicable			HL70001_v2.5.1	9	Value - Code to be used in object instance
O	Other			HL70001_v2.5.1	10	Description - Describes value (code)
U	Unknown			HL70001_v2.5.1	11	Usage - Indicates the inclusion into the value set
					12	Code System - Indicates the source of the code

Representative methodology (most closely proposed v2.x approach)

In general, concepts apply to all data exchange standards (although the terms differ)

NIST

There is concern that FHIR does not have enough support to specify the vocabulary binding that is needed to be very precise. Rob Hausam is the one to talk to about vocabulary in FHIR.

These standards can be very confusing to those who work in the field. We need to educate more and we will also learn something.

Should we meet again in Madrid? There will be more instances of FHIR profile that we can look at. So yes, we will plan for Madrid meeting. Need to talk about generating an implementation guide that is complete enough to test the structures and implementation.

Wednesday Q4

Basic agenda for WGM has been set for Madrid. Details will be determined later.

Nathan will do room assignments.

Nathan will send out notes from meeting.

Moving weekly meeting to 3pm US ET, starting on January 30th. Nathan will schedule new set of conference calls.

Nathan will check to see when FTSD is going to meet in the next month and make sure we are aware of it.

Thursday Q1, Q2 and Q3

Meeting with Vocabulary, please see their minutes.

Conformance Guidance for Implementation /Testing WG Attendance List

Meeting: Jan 2012

Attendee	Name	Organisation	eMail	correct	Session															
					M1	M2	M3	M4	T1	T2	T3	T4	W1	W2	W3	W4	TH1	TH2	TH3	TH4
Alschuler, Liora		Lantana	cbeebe@mayo.edu																	
Beebe, Calvin		Mayo	woody@beelers.com																	
Beeler, Woody		Beeler Consulting	keith.boone@ge.com																	
Boone, Keith		GE Healthcare	Nathan.Bunker@gmail.com																	
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Coyle, Joey		Intermountain	john.garguilo@nist.gov																	
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Hendler, Peter		Eastern Informatics	richard.kavanagh@nhs.net																	
Henderson, Mike		HL7 UK	ted@tklein.com																	
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Julian, Tony		NHS UK	tkuhn@acponline.org																	
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Knapp, Paul		Eurore	brett.margward@lantanaagroup.com																	
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Margward, Brett		AAVLD	Sean.Muir@va.gov																	
Martin, Michael		NIST	del-nelson@seattleretends.com																	
Martines, Sandra		MS&A																		
McCauley, Vincent		MD Partners																		
McCay, Charles		NCI																		
McClure, Rob		VA																		
McKenzie, Lloyd		VA																		
Mead, Charlie		VA																		
Muir, Sean		Seattleretends																		
Nelson, Dale		Seattleretends																		

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