**FHIM Off-Site, Jun 13-14 Working-Draft Minutes;**

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**Last Updated Jun 15, 2017, Steve Hufnagel, editor**

**2017-06-13 FHIM Off-site**

**OBJECTIVE**: FHIM harmonize across FHIR US Realm Harmonization

FHA

* FHA reports to Office of Management and Budget (OMB); but, its home is ONC
  + HHS CIO supports architecture. FHA no longer line of business; but, outward looking part of HHS architecture.
  + Potentially FHA moved under HHS CIO office with internal HHS architectural consistency and interoperability emphasis IAW Clinger Cohen & 2014 NDAA.
* IPO DoD and VA consider FHA a tax with low ROI; considering, IPO already manages DoD & VA architectural interoperability
* Managing Board (MB) meeting / discussion coming up soon
* Take FHIM to HHS OPDIV CIOs to align FHIM & NIEM model.
* Alberto align NIEM health domain to FHIM
* Funny YouTube: <https://www.youtube.com/watch?v=BKorP55Aqvg>

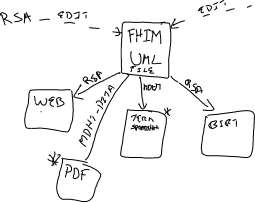
FHIM to support:

* FHIM@HL7 to support a consistent US Realm
  + CDA, FHIR, other (NIEM)
* FHIM@DoD to support readiness interoperability (PAMPI)
  + Problems, Allergies, Medications, Procedures. Allergies
* FHIM@HSPC to support transformation service e.g., V2 to CDA & FHIR
* VA KNARTS 🡪 use CIMI to guide QUICK model
  + Healthy decisions became CQF
  + ACTION (Rob): Julia Skapik’s view of how FHIM can help her/CQF.
  + Lorrain Constable & Patrick Lloyd from HL7 supporting KNART initiative
* Galen: Web/Graphical API to show FHIM as CDA, FHIR, etc.
* FHIM at DoD and VA Cerner might support harmonization via Cerner
* Steve: best case 2020 scenario: HHS (FHA) FHIM funding with separately funded projects
  + Cerner APIs, data structures and data stores (separate from EHR)
  + Sean: “Cerner on FHIR”, link Cerner APIs to FHIR APIs so Apps work within Cerner environment
* Galen: Currently there are 9 VA VISNs
* Galen: Stan Huff needed disease specific open-source DCMs & workflows; where, labs are most mature Inte-Mountain domain and are currently being converted from Clinical Element Models to CIMI DCMs
  + This was Cerner requirements from a standards lens
  + This may have influenced DoD and VA decisions to go with Cerner
* Galen: FHIM-CIMI status
  + FHIM was Encounter centric vs. CIMI is Clinical Statement centric
  + Refactoring Pharmacy required orders, encounters and common domains updates
    - Doing pharmacy now
    - Orders and encounters are done
    - Clinical domains will be quicker
  + Currently, FHIM & CIMI are transformable; where, FHIM has larger scope
  + Objective: FHIM to generate CIMI BMM to maintain consistency
  + Process: FHIM Generate BMM in UML 🡪 CIMI do DCMs in ADL 🡪 FHIM import DCMs ; where,
    - FHIM maintains a separate DCM package; where,
    - DCM package is excluded from BMM package and BMM generation
    - FHIM publish Domain viewpoints, Common Viewpoint, Data Dictionary, Terminology, BMM, DCMs
    - Topic of FHIM Fri 2:30 call with Claude Nanjo
  + Demographics: FHIM does not include CIMI demographics; where, CIMI uses ISO 13606 approach, FHIM uses party package/inheritance approach
    - Major non-tool resolvable differences need to be done manually,
    - **ISSUE**: CIMI generation tooling needs to convert FHIM vs CIMI differences
  + FHIM & CIMI have identical Clinical Statement model following SNOMED Observable model as does SOLOR; thereby following Keith Campbell’s “Separation Principle”: separating model-of-structure, model-of-meaning (with separate Topic, Context and Provenance sub-Models using SNOMED expressions and ontology. Benefit is description logic (DL) reasoning/inferencing.
* Gail: NLM wants to develop an information model. HHS wants us to work on cybersecurity WRT health; but, FHA needs MB support to proceed.
  + Need health related cyber security center …
    - HHS Requires an architecture to replicate NCIS for health domain (1/6 of economy). The **National Cybersecurity Center (NCSC)** is an office within the US Department of Homeland Security (DHS) created in March 2008, and is based on the requirements of National Security Presidential Directive 54/Homeland Security Presidential Directive 23 (NSPD-54/HSPD-23), reporting directly to the DHS Secretary.[[1]](https://en.wikipedia.org/wiki/National_Cybersecurity_Center#cite_note-NSCI-1)[[2]](https://en.wikipedia.org/wiki/National_Cybersecurity_Center#cite_note-2) The NCSC is tasked with protecting the U.S. Government’s communications networks. The Center monitors, collects and shares information on systems belonging to NSA, FBI, DoD, and DHS.
    - HHS Healthcare Cybersecurity Center (HCSC) for internet cybersecurity and developing mitigations
* Galen: Medical devices will need individual ATO rather than historic subnets. Cyber security highest priority. Portable ATOs across networks. FDA may come up with national ATO reciprocity across Services & Agencies to make this work,
* Galen: NIEM & CIMI are both constrainable and extendable at the same time.
* Keith: FHIM use of SOLOR, SNOMED Ref set. Release date will be Oct 31. Keith believes in / has “Uber observation” = Finding + observation.
* SNOMED Ref sets (Release Format) RF2 embeds versioning. Ref Sets only work within the SNOMED information model.
* Rob: we need to understand value set expansion; where in FHIR, The definition of a value set is used to create a simple collection of codes suitable for use for data entry or validation. If the operation is not called at the instance level, one of the in parameters identifier, context or valueset must be provided. An expanded value set will be returned, or an OperationOutcome with an error message.
* Jay: FHIM is a requirements document, harmonization tool, MDD stack

PM: Jay VSAC: Care Plan nursing diagnosis does not exist

CIIC objective to have common requirements

Exercise science and Podiatry group want to go through CIMI



RSA FHIM UML 2.4 file represented in Eclipse EMF

FHIR is XML

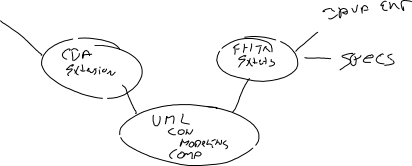
Rob: Atdlassian tool can track comments

ACTION (Sean): coordinate with Sparx to determine EA suitability/LOE

Galen: need to align FHIM and MDHT terminology approach need to be consistent

Gail: FHIR funding from industry (Arganaut)

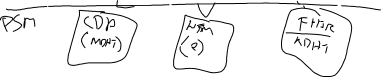
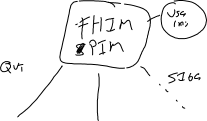
Sean: HAPI on FHIR from Waterloo, CA



MDHI constrains UML in EMF

Galen: MDHT can profile a profile (US Core)

FHIM Transformation process (model driven development)



NIEM: (Galen) Group doing UML rep to NIEM?

Used QVT model-model xform (holistic) … not scaleable

SIGG is scaleable, due to RI

Gail: Who has this type of capability (FHIM & MDMI), FHIM value, need training & education

We need to focus on education and have contracting language for models & term.

FHIER Federal Health Information Exchange Requirements.

Sean: MDMI can help FHIR HAPI

Galen: FHIM does not contain requirements use cases / scenarios

Steve: FHIM + EHRS FM = DAM

Sean: FHIM is a requirements “clearing house”

Galen: HSPC widget built on FHIM

Galen: “ Major value of FHIM is terminology model being put in VSAC”

Rob: NLM VSAC is about tooling and not the content. NLM does not curate content.

CDC develops content

FHIM could be a part of this value proposition e.g., CDE work and CDC content

42 CFR policy on privacy about AIDS, Alcohol, etc.

Rob: narrow (data privacy) or broad focus (FHIM)

John: ONC & FHA provider directory project

ACTION: Friday call include Claude & Michael to discuss

Start with FHIM 🡪 constrain DCM 🡪 import to FHIM 🡪 use SIGG 🡪 create FHIR profiles

**WED PM:**

FOCUS: apply FHIM to

* Skin assessment:

Start with FHIM 🡪 constrain DCM 🡪 import to FHIM 🡪 use SIGG 🡪 create FHIR profile for observation.

Jay, Susan, Sean, Galen, Claude, Galen TOOLING DEMONSTRATION. Jay “Complexity is bindings”

* + CIMI using 13606 data types like HL7 V2. FHIM aligned with FHIR.
  + Galen: big piece is tooling wrt publication
* Provider Directory Healthcare Provider Taxonomy Code System (HPTC) and data elements, using AMA manages NUCC (ntl. Uniform claim committee) for CMS
  + Gail: Balloted FHIR standard with the hope local registries/directories will use it.
    - EiIeen Luterzo, DoD Rep
    - Individuals or organizations apply for NPIs through the CMS National Plan and Provider Enumeration System (NPPES).
    - Medicare Provider Enrollment, Chain, and Ownership System (**PECOS**)
  + Use Case sub workgroup
  + Data elements
  + Architecture
  + Interoperability
  + Approach: keep consistent with FHIM
* Gail: ONC does not plan to do FHIM web site
  + Clinger Cohen and Dec 2014 NDAA require architecture. FITARA was rolled into 2015 NDAA. Federal IT Acquisition Reform Act, or **FITARA**, is U.S. legislation passed in December 2014 that puts federal agency CIOs in control of IT investments. **FITARA** is a law that requires U.S. federal agencies to provide the Office of Management and Budget (OMB) with: a comprehensive inventory of data centers. HHS CIO has HHS CIO council. Federal CIO has Federal CIO council is under OMB, which has lines of business (LOB), e.g., finance, HR, geospatial, ONC: FHA.
* FHIM Website
  + Can use GitHub and GitHub pages with FOIA release / notice published on a government website.
* Possible FHIM-based testing pilots
  + SteveH contact Nancy Orvis on PAMPI & Ken Rubin on TBD to do FHIM models and tools on a real application.
  + Skin and wound and provider directors as default.
* Transition planning (post 2019) limit to US Realm with Easy to use tooling
  + Who/where:
    - HHS/CIO
    - NLM
    - IPO, DoD DHA and/or VA
    - ONC (Donald Rucker national coordinator, John Flemming, asst. sec. for health IT reform
      * Coorporate interests vs. level of Federal direction
    - NIST standards & testing
    - Non-Government: OpenGroup, HL7 (US Realm, FHIR US Core, C-CDA), OSEHRA-HSPC
  + **ACTION**: message (elevator speech) from each of the above groups.
    - Home, Proponent vs. sponsor, Fiduciary vs. operational responsibility
    - Issue: “FHIM has outgrown Federal agencies … industry
    - Approach: Build community of interest provide educational sessions
      * Web site with “why FHIM” use cases, ACTION: find existing use cases,
    - **Audience**: clinicians, architects, analysts, implementers, decision makers?
    - FHIM 101 video
    - Gail:Samantha Mergenthaler, tech writer can help on FHIM writeups
    - Business case for FHIM standard, Nancy support needed, VA???
    - Communication Plan finding Home, projects, sponsors
  + **Issues**
    - **Galen**: Terminology Server URIs in FHIM? Code generation model-bound (statically bound) vs run-time (dynamically bound) bindings? When do you resolve bindings? Rob: When do we change the spec? Is this up to the implementer?
    - **Rob**: FHIR is operational is its benefit. We need to make FHIM operational, where, there is an infrastructure to provide feedback.
    - **Galen**: Connectathons don’t check value sets
    - **Sean**: bundled validation dropped from STU-3 spec.
    - **Rob**: NLM FHIR API status