

EMRN Data Standardisation Strategy Workshop

Potential Synergies with HL7

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About Health Level 7 International

ANSI-accredited, non-profit
Standards Development Organization
Founded in 1987

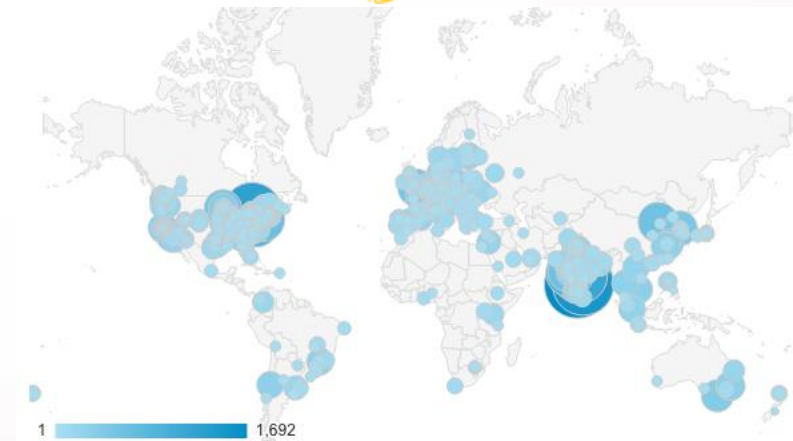
The HL7 Vision

A world in which everyone can securely access and use the right health data when and where they need it.

The HL7 Mission

To provide standards that empower global health data interoperability.

HL7 Affiliates

HL7 FHIR[®]

The Fundamentals of FHIR

Fast Healthcare Interoperability Resources

- A next generation, *open-source standards framework & platform*, built on 30 years of HL7 experience, designed for simplicity and implementation
- Built on REST, a pattern for using web technologies to manage information (the platform used by Facebook, Twitter...) and APIs
- Content based on human-readable *Resources*: essential, portable modular information building blocks of common elements easily assembled into working systems
 - Like web pages directed toward computers; fast and scalable
- Flexible outputs: web services, messages, documents, bulk data domain files
- Components for Mobile Health (SMART-on-FHIR), Clinical Decision Support (CDS-Hooks), Image Integration (FHIRCast) and many other functions
- A *technology platform*, a *data model*, and an active, global *community* (>17000 active members worldwide; 100's of servers, apps, testing environments and shared reference materials)

“The Web, for Healthcare” – Grahame Grieve



FHIR Resources

FHIR Core now includes
Specialized resources for IDMP
product & Substance; ResearchStudy
& ResearchSubject; Plan, Activity
& Event Definition, Quality Testing,
Evidence-Based Medicine,
Genomics, etc.

Level 1 Basic framework on which the specification is built



Foundation

Base Documentation, XML, JSON, Data Types, Extensions

Level 2 Supporting implementation and binding to external specifications



Implementer Support

Downloads,
Version Mgmt,
Use Cases,
Testing



Security & Privacy

Security,
Consent,
Provenance,
AuditEvent



Conformance

StructureDefinition,
CapabilityStatement,
ImplementationGuide,
Profiling



Terminology

CodeSystem,
ValueSet,
ConceptMap,
Terminology Svc



Exchange

REST API + Search
Documents
Messaging
Services
Databases

Level 3 Linking to real world concepts in the healthcare system



Administration

Patient, Practitioner, CareTeam, Device, Organization, Location, Healthcare Service

Level 4 Record-keeping and Data Exchange for the healthcare process



Clinical

Allergy, Problem,
Procedure,
CarePlan/Goal,
ServiceRequest,
Family History,
RiskAssessment,
etc.



Diagnostics

Observation,
Report, Specimen,
ImagingStudy,
Genomics,
Specimen,
ImagingStudy, etc.



Medications

Medication,
Request, Dispense,
Administration,
Statement,
Immunization, etc.



Workflow

Introduction +
Task, Appointment,
Schedule, Referral,
PlanDefinition, etc



Financial

Claim, Account,
Invoice, ChargeItem,
Coverage + Eligibility
Request & Response,
ExplanationOfBenefit,
etc.

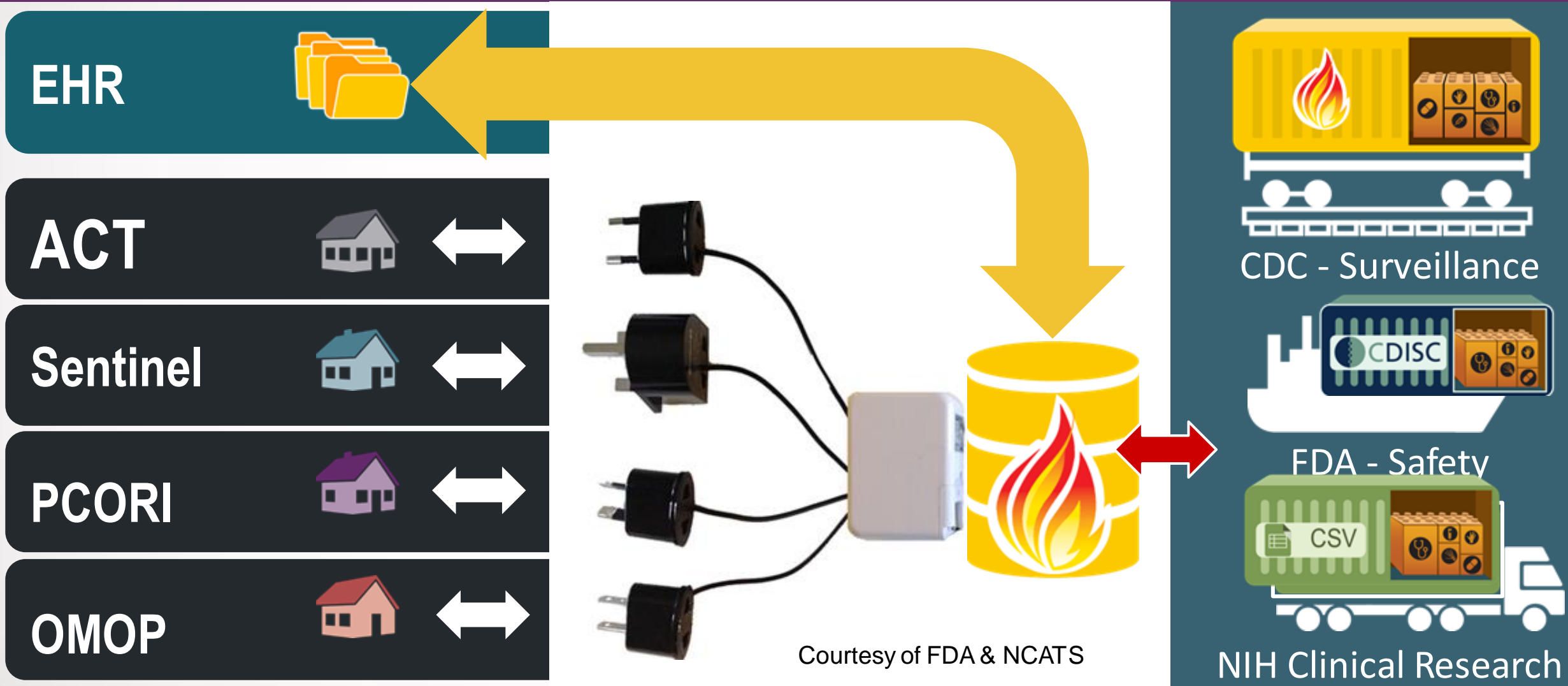
Level 5 Providing the ability to reason about the healthcare process



Clinical Reasoning

Library, PlanDefinition & GuidanceResponse, Measure/MeasureReport, etc.

NIH/FDA Common Data Model Harmonization Program



Helpful Links



- HL7 Vulcan FHIR Accelerator for Research <http://www.hl7.org/vulcan/>
- Common Data Model Harmonization (CDMH) and Open standards for Evidence Generation final report: <https://aspe.hhs.gov/system/files/pdf/259016/CDMH-Final-Report-14August2020.pdf>
- CDMH FHIR Implementation Guide (FHIR->OMOP-PCORNET-Sentinel-i2b2) <https://build.fhir.org/ig/HL7/cdmh/index.html>
- FHIR to CDISC Joint Mapping Implementation Guide <http://hl7.org/fhir/uv/cdisc-mapping/2021JAN/index.html>
- FHIR Home: HL7.org/fhir
- HL7 Education: HL7.org/training
- HL7 Group Meetings and Connectathons: HL7.org/events
- FHIR Zulip Chat Community: chat.fhir.org

“I skate to where the puck is going to be, not where it has been.”

“You miss 100% of the shots you don't take.”

-- Wayne Gretzky, legendary hockey player

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