

FHIR for executives and decision makers

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Why FHIR?

- If we can strip down all the bells and whistles, at its heart, FHIR is just a data standard.

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CHILD      UTAH
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544      ROOD      AVENUE      544 ROOD AVENUE      GRAND JUNCTION      COCOLORADO      81301
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1942UT      20200213  NO  C3149 11969 21C349
NXU80  ID      NSPOUSES RESIDENCE      6013 POPLAR COURT      6013
POPLAR      COURT      BELLVIEW      COLORADO      80512 FARMER      05870      EDMMER
BLAKESLEY      3676 EAST YOSEMITE      DRIVE      80512 FARMER      05870      EDMMER
3676 YOSEMITE DRIVE      UT635 0      SAUL LAKE CITY      84109 SAUL LAKE      UTAH      US
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Why FHIR?

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- HL7 v2
- IHE/SOAP calls
- HL7 v3

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Why FHIR? Continued...

- Access to information
- Open standards. Spec is free for use with no restrictions.
- Interoperability out-of-the-box: base resources can be used as is, but can also be adapted as needed - which happens a lot - for local requirements using Profiles, Extensions, Terminologies and more
- Evolutionary development path from HL7 Version 2 and CDA: standards can co-exist and leverage each other
- Strong foundation in Web standards: XML, JSON, HTTP, OAuth, etc.
- Support for RESTful architectures, seamless exchange of information using messages or documents, and service-based architectures
- Concise and easily understood specifications
- A human-readable serialization format for ease of use by developers
- Ontology-based analysis with formal mapping for correctness

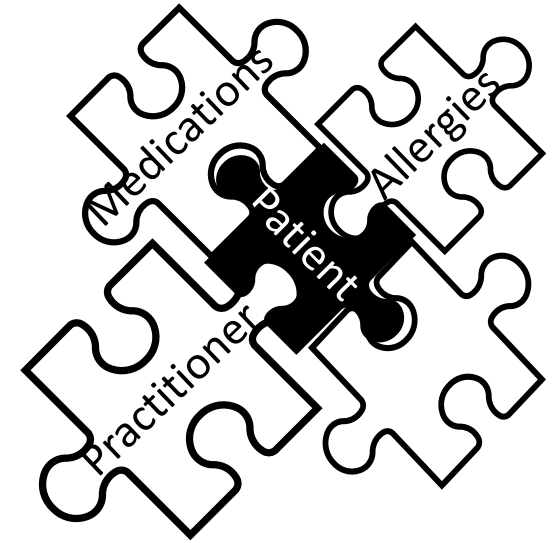
Why FHIR? Continued...

- 21st Centuries Act, 2015: certification criteria set forth by ONC and CMS mandated vendors to include **standardized APIs** to expose core data elements.
- Updated 2020 rule: The API certification criterion requires the use of the HL7 FHIR standard Release 4 and references several standards and implementation specifications to support standardization and interoperability

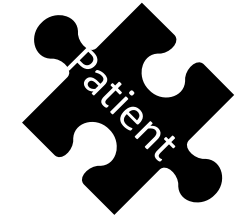
What is FHIR?

There are three main components to FHIR:

- A comprehensive data model to describe health and administrative data
- A RESTful API for interacting with that data using either JSON or XML
- A FHIR server to interact with and read/write/search for data



What is FHIR?



Structure

Name	Flags	Card.	Type	Description & Constraints
Patient	N		DomainResource	Information about an individual or animal receiving health care services Elements defined in Ancestors: id , meta , implicitRules , language , text , contained , extension
identifier	Σ	0..*	Identifier	An identifier for this patient
active	?! Σ	0..1	boolean	Whether this patient's record is in active use
name	Σ	0..*	HumanName	A name associated with the patient
telecom	Σ	0..*	ContactPoint	A contact detail for the individual
gender	Σ	0..1	code	male female other unknown AdministrativeGender (Required)
birthDate	Σ	0..1	date	The date of birth for the individual
deceased[x]	?! Σ	0..1		Indicates if the individual is deceased or not
deceasedBoolean			boolean	
deceasedDateTime			dateTime	
address	Σ	0..*	Address	An address for the individual
maritalStatus		0..1	CodeableConcept	Marital (civil) status of a patient MaritalStatus (Extensible)
multipleBirth[x]		0..1		Whether patient is part of a multiple birth
multipleBirthBoolean			boolean	
multipleBirthInteger			integer	
photo		0..*	Attachment	Image of the patient
contact	I	0..*	BackboneElement	A contact party (e.g. guardian, partner, friend) for the patient <i>+ Rule: SHALL at least contain a contact's details or a reference to an organization</i>
relationship		0..*	CodeableConcept	The kind of relationship Patient Contact Relationship (Extensible)
name		0..1	HumanName	A name associated with the contact person
telecom		0..*	ContactPoint	A contact detail for the person
address		0..1	Address	Address for the contact person
gender		0..1	code	male female other unknown AdministrativeGender (Required)
organization	I	0..1	Reference(Organization)	Organization that is associated with the contact
period		0..1	Period	The period during which this contact person or organization is valid to be contacted rel

and administrative

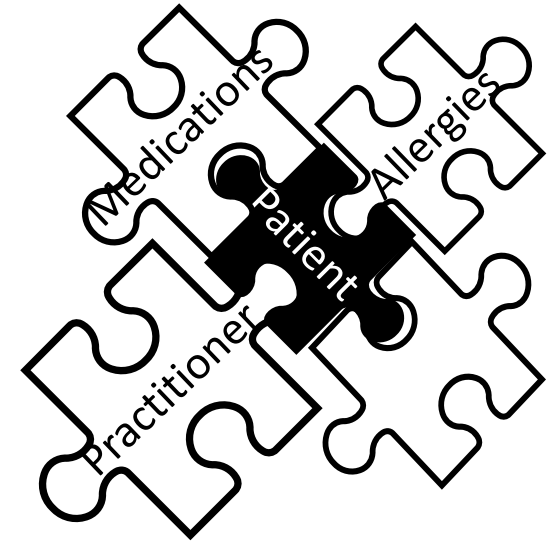
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What is FHIR? Continued..

There are three main components to FHIR:

<https://graph.facebook.com/>

[368731829998](https://graph.facebook.com/368731829998)

[?](#)

[fields=about,description,website,link,location,cover,is_always_open,id,hours,engagement,differently_open_offerings,checkins,category_list,is_permanently_closed,temporary_status,single_line_address,restaurant_specialties,restaurant_services,rating_count,price_range,phone,payment_options,parking,overall_star_rating,name,is_verified](#)

[&](#)

[access_token=EAADUzi5AsUABACHj8Gwkd0840QsN4pJWxp6WTm0mLbluzMmAesIFOKOe6EU6IXLJEiouAzEFfjRUL7oqXF3ZBdynFKkuc3XsCcbNtca4N8tuYlqRTCV8PQkumw9ietkgLAu8v2ilQhZAoq4KcQPZCO65dbFtmuSQ5hBTbl7zsFPFgz nMatxjsPogLLOBX9NfinAebIZBsAZDZD](#)

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FHIR Conformance

- FHIR Profiles
 - Conformance Resource
 - A set of related resource profile definitions
 - A manifest listing all the available profile definitions (based on *Composition* resource)
 - An implementation guide describing the profiles
 - Capability Statements
 - Implementation Guides
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- Balloting process for IGs to get published.

FHIR Conformance

- FHIR Profiles
- Conformance Resource
- Capability Statements
- Implementation Guides
 - provide additional details about how API calls are used ([Capability Statement](#))
 - Add additional [operations](#) or [search parameters](#) not in the base specification
 - Define how a particular structure is used
 - Describe how existing elements in resources are used; Identify elements not used; and
 - Define extensions
 - Mix custom and standard terminologies and choose which codes from these to use for a particular coded element([Value Set](#) and StructureDefinition Resources)
 - Map between local and standard terminologies or content models ([Concept Map](#) Resource)
 - Register system namespaces for identifiers and terminologies ([NamingSystem](#) Resource)
- Balloting process for IGs to get published.

Fanning the flames, as FHIR spreads rapidly at CHDI..