

CAREWare Features in Focus:

Importing data through a Fast Healthcare Interoperability Resource (FHIR)

Application programming interface (API)

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John Milberg – HRSA HIV/AIDS Bureau Div. of Policy and Data Rockville, MD

> Jeremy Chung and Jeff Murray jProg, Inc. New Orleans, LA

What is a FHIR API?

• From the Office of the National Coordinator (ONC) for HIT:

FHIR stands for Fast Healthcare Interoperability Resources, a next-generation interoperability standard created by the standards development organization Health Level 7 (HL7). FHIR is designed to enable health data, including clinical and administrative data, to be quickly and efficiently exchanged.

- Uses up-to-date authentication security and encryption standards to make the "hand shake" between the EMR (the data source/server) and the client (the receiver of the data, such as CAREWare)
- Allows for the handling of any number of standardized codesets such as ICD-10 (diagnoses), RxNorm (medications), SNOMED-CT (procedures/services), LOINC (lab tests)

Why use FHIR?

- Direct connection to EMR eliminates need to create intermediary CSV files; greatly reduces hand and duplicate data entry
- Standardized codes for demographics, labs, medications, and services that are routinely used in EMRs will be automatically mapped into CAREWare in the FHIR transmission.

HI7.org/fhir







Base Documentation, XML, JSON, Data Types, Extensions

Level 2 Supporting implementation and binding to external specifications



Downloads, Version Mgmt, Use Cases, Testing



Security & Privacy

Security, Consent, Provenance, AuditEvent



Conformance

StructureDefinition, CapabilityStatement, ImplementationGuide, Profiling



Exchange

REST API + Search CodeSystem, ValueSet, Documents ConceptMap, Messaging Terminology Svc Services

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



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



Diagnostics

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



Medications Workflow

Medication, Introduction + Request, Dispense, Task, Appointment, Administration. Schedule, Referral, Statement, PlanDefinition, etc. Immunization, etc.



Financial

Databases

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

FHIR API Process in CAREWare

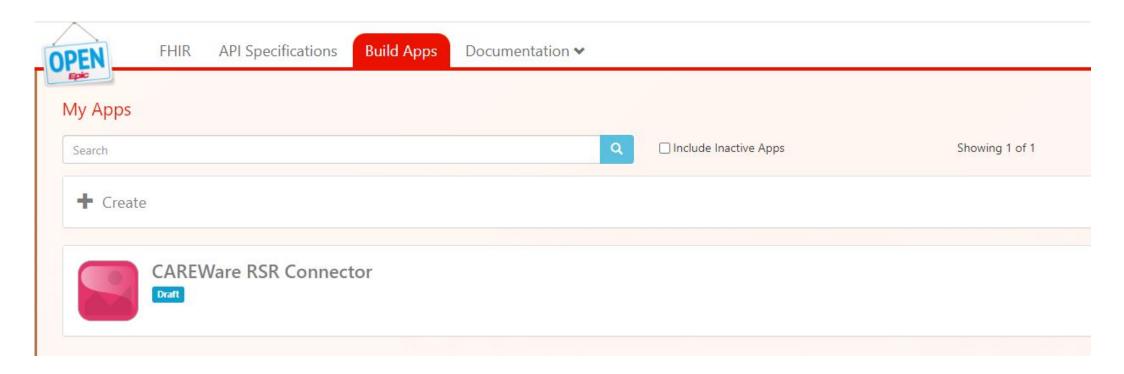
• Connect to EMR:

CAREWare will create a FHIR app called "CAREWare RSR Connector" on your EMR's FHIR portal. You can check with the CAREWare helpdesk if we have made one yet for your EMR

- Request data for specific patients/clients and specific information on those individuals (using some client id or perhaphs in bulk (e.g. all HIV positive clients with a visit in the last year)
- Data are converted into a PDI formatted file and mapped into CAREWare

CAREWare Demo!!

Using a connection to the EPIC "sandbox" (test data only!)



How do you activate FHIR in your EMR?

- •Depends on...
 - Your clinic's administrative approval process
 - Potential costs to activate the FHIR service in your EMR
 - The particular EMR in use (this may take time to activate and may differ by EMR).
- The CAREWare PDI FHIR datasource is scheduled for beta testing in January of 2023 and production in June.

Limitations/Issues

- What proportion of RSR data is available in the EMR?
 - Variables including federal poverty level, housing status may not be recorded at all or with any consistency
- Outstanding work required to best understand how to map clinical encounters as recorded in the EMR with Ryan White eligible service categories
- Will require ongoing administrative and technical oversight

FHIR resource links

https://www.healthit.gov/topic/standards-technology/standards/fhir-fact-sheets

http://www.hl7.org/fhir/

Contacts:

John Milberg – <u>imilberg@hrsa.gov</u>

jProg: cwhelp@jprog.com