



#BETTERGLOBALHEALTH



HAPI FHIR 5.5.0

Smile CDR 2021.08.R01

Quasar Release Webinar

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HAPI FHIR



Today's Agenda:

- What's New
- What's Coming
- Q&A

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Team Pulse:

- 20+ payors are now live with final rule APIs
- Smile CDR Series A
- HAPI FHIR now averaging 14 core committers + many occasional contributors
- I took a vacation :)

Quasar: New and Noteworthy

The Takeaway: HAPI FHIR



Performance has been the dominant concern in this release cycle.

- All areas of the codebase have seen profiling and optimization work
- Data ingestion speeds continue to improve

Comparative numbers to come next quarter...

The Takeaway: Smile CDR



Key areas of focus this release are:

- Performance
- Data integration
- Ecosystem tools

Release Timing Update



We hit a few last minute snags in this quarter's release, so we're expecting to upload the binaries in the next few days.

Programmatic NPM Validation Module



- NPM IG Packages can now be programmatically supplied to the validator as an alternative to uploading them into a JPA server

Offset Mode for Repository/JPA



- Offset mode uses `_offset` parameter for stateless paging
- New interceptor added to HAPI FHIR to force its use
- New *Forced Offset Mode* flag added to Smile CDR

Terminology Enhancements



- Native support added for ICD-10-CM
- LOINC enhancements:
 - Support for LOINC 2.70 added
 - Support for LOINC *Consumer Name* data added
 - Support for LOINC *Linguistic Variant* data added

Inline Tag Mode



- This mode improves performance on servers where a very large number of unique tags are found on a server
- In this mode tags are no longer indexed by default and do not generate statistics, but perform much better in this specific scenario

Improved Partitioning Support



- Partitioning can now be used with:
 - HAPI FHIR / Smile CDR CQL Evaluation Operations
 - Smile CDR Channel Import module
 - Smile CDR ETL Import module

JDK Version Update



- HAPI FHIR is now built using JDK 16 and continues to support JDK 8 - 16
- Smile CDR now supports JDK 8, 11, and 16
- We are contemplating increasing the minimum JDK to 11 at the end of the year. Please let us know if you have an opinion.

Batch Framework

Resource Reindexing



- The previous \$mark-all-resources-for-reindexing operation has been deprecated and replaced with a new \$reindex operation
- The new operation leverages batch framework

Bulk Import - Partly Done



- A new batch process for asynchronously bulk importing data has been added
- This is a precursor to implementing the \$import operation (not yet done!)
- Smile CDR CSV ETL module is already leveraging this functionality

Delete Expunge Batch Job



- The delete+expunge operation has been converted to a batch job
- This allows much larger datasets to be deleted and expunged without running into timeouts and other issues

Batch Job Console



HAPI FHIR

- In Smile CDR, a new page is added to the Web Admin Console showing the status of running batch jobs

MDM / EMPI

Paging for MDM Operations



- Operations for querying links and golden records now support paging through results

CDA

CDA Exchange Module Enhancements



HAPI FHIR

- **Increase the value derived from FHIR data** with new supported sections to incorporate USCDI Data Classes and health information required by the 21st Century Cures Act;
 - Goals, Immunizations, Procedures, Medical Equipment, Encounters, Functional Status
- **Generate and access CDA documents easily** via the FHIR \$docref endpoint, so CDA documents can be retrieved along with all other patient documents
- Drive **Value-Based Care** by including only the pertinent information;
 - Transferring to a care provider? Share a Patient's entire medical history in one document
 - Referring to a specialist? Share only relevant information like allergies, medications, recent immunizations, and past doctor's appointments

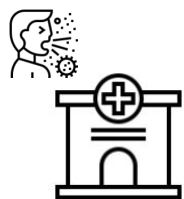
CDA Exchange Module Enhancements



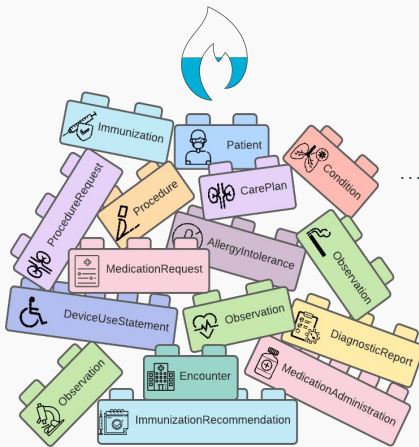
HAPI FHIR

Provider generates a minimal CCD

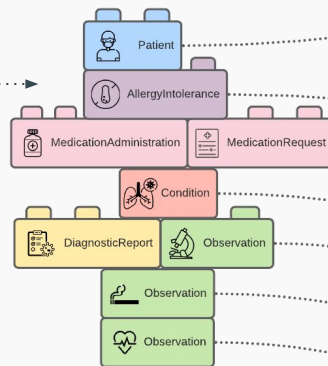
Patient visits their regular Provider



FHIR Resources



CDA Template



Patient is referred to an Immunologist



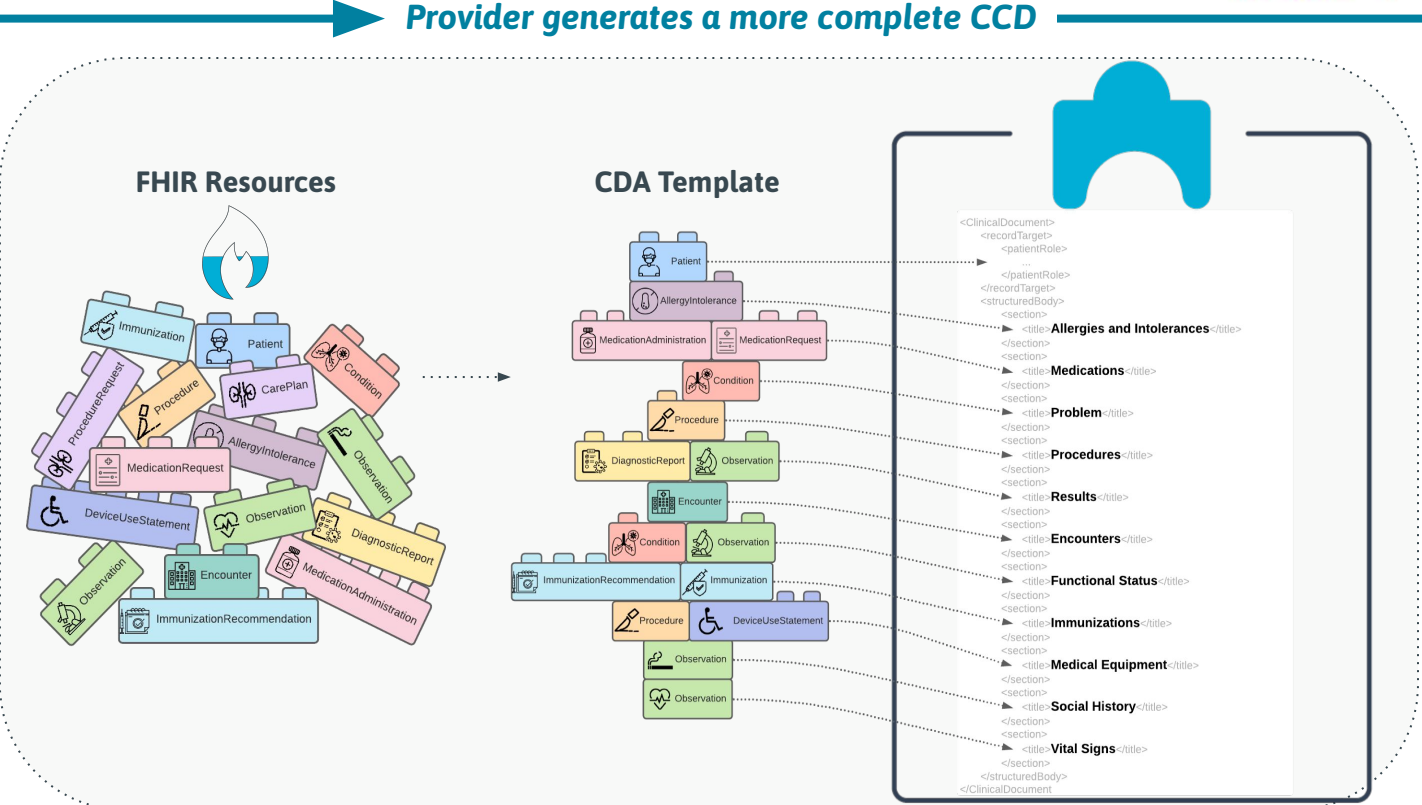
CDA Exchange Module Enhancements



HAPI FHIR

Provider generates a more complete CCD

Patient visits their regular Provider



Patient transfers to a different Provider



App Management Tools

App Management Tools Enhancements ✓

HAPI FHIR



Sandbox built into the developer portal so developers can test apps easily prior to app registration



Enhancements to **text editing and versioning of the attestation** collected from 3rd-party developers during app registration



Improved the design and customizability of the **warning and scopes screens shown to patients** during app authorization



Integration with email servers to send **notifications to developers** for app approvals and changes

Coming Soon....



- Product management have moved to a new tool for short / medium / long range planning
- Hopefully better transparency will be possible soon as a result

Q & A