CHIS FHIR Profiling

> **Work in progress**
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> This is page is a work in progress. This info bubble will be removed once the TWG feels it is complete.

This page defines the high priority FHIR resources that should be profiled and supported by a Community Health Information System in order to support interoperability.

FHIR resources, priority and applicability

Full Resource List is available at http://hl7.org/fhir/resourcelist.html

Resource	Priority	Applicability/Use	Notes
Patient	High	Establish a patient record against which we can track services over time.	This does not support storing relationships.
Observation	High	Collect observations about patients.	
CodeSystem	High	Support looking up codes from third party and embedded systems.	
ValueSet	High	Support storing sets of values that can be looked up and referenced to standardize terminologies across the solution.	
StructureDefinition	High	Support storing structured data in this generic pattern.	This is generically useful if you need to extend or "customize" how information is stored and accessed.
Location	High	Support defining locations at multiple levels within the system.	Include jurisdictions for administrative boundaries. This will need to be extended to store geometries. The resource only supports collection of point information.
Encounter	Medium	Group observations into a single clinical encounter.	
Practitioner	Medium	Identify who in the health system interacts with patients.	This is used to demonstrate who provided care and is linked in patients and observations.
Organization	Medium	Identify the organizations responsible for providing care within a given context.	This can also be used to define teams of people who work together.
PractitionerRole	Medium	Define the relationship between a practitioner and an organization to know how they are structured.	This can be used to relate groups of practitioners, structuring them as teams. You can also establish a hierarchy of responsibilities like manager, CHW, administrator, etc.
Task	Low	This workflow element defines a unit of work to be assigned and performed by a particular owner.	This is an orchestration tool that allows you to track work throughout the system.
ServiceRequest	Low	Distinctly and generically track requests throughout the CHIS such as diagnostic tests, referrals, and community services.	This is a catch all for any type of request that could be needed. It links to the appropriate data that supports the request such as an order, referral, or questionnaireResponse.
CarePlan	Low	Define and track the care that has been and is expected to be provided to an individual patient over time.	This can be used for things like pregnancy or immunization schedules. Note that this is at a patient level, not a "system" level.
DiagnosticReport	Low	Track the results of a diagnostic test.	
Questionnaire	Low	Generically define data collection instruments.	
QuestionnaireResponse	Low	Generically store the responses from a questionnaire	
Measure	Low	Define metrics that can be evaluated against the FHIR store.	
MeasureReport	Low	Generate a report for a particular measure or group of measures for a particular point in time.	These should also be able to be transported to DHIS2 through the mADX standard

Appropriate FHIR operations

FHIR has defined a set of functions that are commonly supported within the health domain. These are called "Operations" and are supported at varying degrees within a particular technical implementation. The full list of Operations is available at https://www.hl7.org/fhir/operationslist.html

Operation	Priority	Applicability/Use	Notes
$evaluate-measure	Low	Evaluate a measure and generate a measure report based on the information in the central system.	

Bulk Data Export	Low	Export large, flattened data sets.	This is specific to the bulk data export implementation guide and may be useful for a particular context.

Useful Resources

This list was derived from functional documents as follows:

- mobile Care Services Discovery IHE profile defines the process for identifying who is providing which services at what locations within a health system. This is appropriate for a CHIS because CHIS has a large orchestration and logistical element.
- FHIR International Patient Summary Implementation Guide provides a baseline structure of information that has been deemed clinically important when trying to exchange patient summaries. This supports the continuity of care of patients across boarders. There are a lot of structures in this implementation guide that are well thought out and applicable to the CHIS point of service context.
- mobile Aggregate Data Exchange IHE profile defines the mechanisms for exchanging aggregate reports between systems. This is helpful for getting data into a centralized reporting system like DHIS2 using FHIR's measureReport standards.
- Bulk Data Access Implementation Guide which defines a generic process for getting data out of a FHIR system in a flattened format such as CSV instead of having to export each resource independently. This is useful from a CHIS perspective because it may aid in certain interoperability or reporting use cases where reports are needed.