

Swiss Tropical and Public Health Institute Schweizerisches Tropen- und Public Health-Institut Institut Tropical et de Santé Publique Suisse

Associated Institute of the University of Basel

Open HIM

openIMIS – Adaptability and interoperability

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Overview

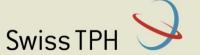
- Scope of application of openIMIS
- Requirements of adaptability and interoperability
- Adaptability to changing business rules
- Landscape for interoperability of openIMIS
- Available standards-HL7 FHIR



Scope of aplication of openIMIS

The area of deployment of openIMIS:

- health insurance especially social health insurance
- related insurance schemes
 - employment injury insurance
 - sickness insurance
 - maternity insurance
 - etc.



What are requirements for adaptability and interoperability in practice ?

- A new business rule has to be implemented in the business logic layer.
- openIMIS should co-operate with an external IT system or an external IT system should co-operate with openIMIS.
- openIMIS should import data from an external IT system or openIMIS should export data to an external IT system.



Business rules for activation/deactivation of policies

- When a policy is activated?
 - When contributions should be paid?
 - What amount of contributions should be paid?
 - When a policy is deactivated?
 - Under which conditions a policy can be modified?



Business rules for processing of claims and payment of health care

- Under which conditions a claim is accepted or rejected?
- Under which conditions a unit of provided health care is accepted or rejected?
- How a unit of provided health care is valuated?
- How a claim is valuated?
- How health care provided by a health facility is valuated?



Approaches to adaptability of openIMIS relating to the business logic

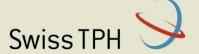
- Currently used approach
 - Implementation of a choice of business logic features and selected by a user parametrization
 - Implementation of specialized operational reports
- Future options
 - Implementation of elementary building stones of the business logic and its combination (at user or sub-user level) by an internal workflow tool
 - Other?

However, delivery of an empty envelope where a country has to implement major part of the business logic on its own should be avoided



Communication between openIMIS and a peer IT system

- If a standard is used, both parties have to use this standard or a conversion tool has to be developed
- Off-line (batch) communication based on export/import of data o in an agreed(standard) format of data
- On-line communication based on API functions (e.g. RESTful API services)
 - peer to peer communication with stateless API functions- there has to be a mediator which cares for a protocol of the communication



Available standards

- (HL7 FHIR)-Fast Healthcare Interoperability Resources is predominantly a standard for exchange of clinical documentation
- One so called resource of the FHIR standard Claim relates to data exchange with payers and providers of health care- this is relevant to openIMIS

The Claim resource is intended to support:

- Claims where the provision of goods and services is **complete** and reimbursement is sought.
- Pre-Authorization where the provision of goods and services is **proposed** and either authorization and/or the reservation of funds is desired.
- Pre-Determination where the provision of goods and services is explored to determine what services
 may be covered and to what amount. Essentially a 'what if' claim.
- However, the resource is not intended for providing a feedback to a health care provider on its claims
- Are there any standards beside HL7 FHIR applicable to the scope of health insurance systems?



Options of implementing HL7 FHIR (Claim resource)

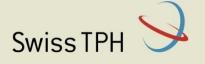
Observation: openIMIS supports only a subset of the data model of the Claim resource. The rest is not supported in its presentation/ business logic/data layer.

external IT system



Options

- Disregard non-openIMIS data
- Enrich openIMIS data model to a full scope and eliminate not needed data at the presentation level (through conversion mechanism used for the Master Version)
- Allow user level enrichment of the openIMIS data model



Thank you for your attention!