Patient Level Indicator Reporting (PLIR)

How does this project fit with the strategy?

This project contributes to an integrated approach that supports patient-level indicator reporting using a standards-based HIE architectural framework.

This work is closely aligned to the OpenMRS Analytics Vision, FHIR in OpenMRS vision, and related discussions about analytics on FHIR. It complements the solutions currently under development by the Analytics Engine Squad, FHIR Squad, and the Intellisoft Bahmni PLIR Team.

Who's working on this?

Project Points of Contact:
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For more information about the specific people working on this project, please see the PLIR Squad contact page

Status
ACTIVE

Why are we doing this?

Problem statement

Doing modern analytics on OpenMRS data is challenging - even more so when national and global reporting requirements change frequently. Over the years, OpenMRS implementers have developed a variety of reporting solutions in response to customer demands for aggregate data, often housed in separate, aggregate data systems. They often rely on writing custom scripts in order to meet deadlines, meaning that every change to reporting indicators will require a manual fix. This limits the ability to re-use and sustainably scale these solutions among OpenMRS implementers. Additionally, calculating indicators within OpenMRS often leads to performance issues.

One solution is to use an OpenMRS Analytics Engine that goes beyond extracting data from OpenMRS and calculates reporting indicators. This solution is currently in development by the Analytics Engine Squad.

A related solution is to extract and send the disaggregated data to a mediator, such as OpenHIM, that will in turn forward the data to a FHIR server and CQL engine, where the indicator calculations will be done.

Impact of this solution

More and more countries are seeking robust, interoperable solutions that will fit into an increasingly sophisticated health information exchange architecture based on recognized standards. By developing a proof of concept that demonstrates how OpenMRS patient data can be extracted and sent to a mediator and is standards-based, countries and implementers will have access to a proven solution that works and can be extended for use within their country's HIE architecture.

Goals
**What are we doing?**

- Develop a proof of concept which supports the calculation of the TX_PVLS indicator.
- Build a proof of concept that supports exporting the necessary data for the measure calculation to a standard format e.g., a CSV or a FHIR bundle
- Build the capability for reading a FHIR Measure resource for the TX_PVLS indicator

**Validation**

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<th>What do we already know?</th>
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**Resources**

- Proposed Architecture
- Concepts for Calculation of the TX_PVLS indicator
- FHIR Measure Resource For Calculation of TX_PVLS
- FHIR CQL Libraries for the Calculation of TX_PVLS
- Automated PLIR Testing/Validation
- Manual Steps For Testing Calculation of TX-PVLS and TX-CURR Indicators Using CQL-based Approach
- Local Installation
- PLIR Presentation
- Project Logins
- Revised Workplan (Submitted)
- Further Context for Project Managers
- IHE White Paper on Clinical Quality Language for Aggregate Data Exchange
- InstantHIE Technical Architecture
- FHIR Webinars and Tutorials

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