OPENSRP

OpenSRP is an open source mobile health platform that allows frontline health workers to electronically register and track the health of their entire client population.

General Details

PRIMARY USERS:

The primary end users are community health workers and health facility staff, typically nurse midwives, doctors, or medical officers.

REACH OF TECHNOLOGY:

OpenSRP is used around the world by ministries of health, implementing partners, and technical partners. This includes national scale adoption, like in Tanzania.

TYPE:

Software Application

OPEN SOURCE LICENSE:

Apache 2.0

Access Information

SOURCE CODE

https://github.com/opensrp/fhircore

WEBSITE

https://smartregister.org

CONTACT

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WHO System Classification

PRIMARY

A2 | A2 Community-based information systems

ADDITIONAL

D2 | D2 Data interchange and interoperability
A5 | A5 Electronic medical record systems
E2 | E2 Public health and disease surveillance system
D8 | D8 Shared Health Record and Health Information Repositories

Standards & Interoperability

Global Goods Product Suite for Immunization

A **global goods product suite for immunization** is a collection of several open source digital health tools and frameworks designed to support immunization programs. The product suite aims to improve vaccine delivery, health worker support, and data collection and reporting, particularly in low- and middle-income countries. It is designed to be interoperable using Health Level Seven's (HL7) Fast Healthcare Interoperability Resources (FHIR).

Components of the Global Goods Product Suite for Immunization
This product suite demonstrates how the World Health Organization's (WHO) Standards-based, Machine-readable, Adaptive, Requirements-based, and Testable (SMART) Guidelines for routine child immunization can be used to create digital health solutions that align with WHO guidelines and are adaptable to meet country-specific needs. The WHO Digital Adaptation Kits (DAKs) provide technical specifications to digitalize immunization workflows, ensuring alignment with global standards. It is comprised of:

OpenSRP2: (**Client and Population Management**)
The Electronic Immunization Register (EIR) in OpenSRP2 tracks individual immunization records, schedules follow-ups, ensures adherence to vaccination schedules, and supports health workers to better deliver immunization services to ensure no one falls through the cracks. It supports multiple languages (e.g., English, Spanish and French) and integrates seamlessly with analytics dashboards (e.g., Akuko) for informed decision making. It can be easily adapted to align with national immunization guidelines and deployed to integrate with existing health systems using the HL7 FHIR standard.

The OpenSRP2 EIR integrates with:

DHIS2: **Health Information System: Health Worker and Health Manager and Support Personnel Tools**
Tracks immunization coverage and generates dashboards for monitoring. Aggregates and analyzes immunization data to support decision-making, monitor coverage, and identify gaps.

RapidPro: **Client-Facing Tool**
Sends SMS reminders to caregivers for upcoming vaccinations.

OpenHIM (Open Health Information Mediator) **Interoperability Layers**
A middleware system that facilitates secure and standards-based data sharing across these systems to support immunization services.

In addition, OpenSRP2 can demonstrate prototype interoperability workflows using HL7 FHIR to support the following:

Master Patient Index (MPI) integration : Improves the efficiency, accuracy, and continuity of care within immunization services. The MPI provides a centralized, unique identifier for each patient across multiple healthcare settings, helping to address issues such as duplicate records, misidentification, and fragmentation of patient data. This improves the quality of immunization services by ensuring that every patient's vaccination history is correctly linked, easily accessible, and consistently updated.

Vaccine Supply Chain Management integration: Immunization programs rely on both clinical information (e.g., patient vaccination history) and logistics data from a LMIS (e.g., vaccine availability and cold chain management). Combining these systems ensures a seamless flow of information, ensuring that immunization services are delivered efficiently, safely, and equitably.

Shared Health Record (SHR) integration: Supports continuity of care, improving data quality, and supporting health systems in delivering effective, person-centered immunization services.

The **global goods product suite for immunization** is a standards-based digital solution that can support diverse national immunization programs and help countries' achieve their immunization goals and strengthen health systems in low-resource settings.

STANDARDS

CIEL, HL7 FHIR, ICD-10, ICD-11, ICD-9, LOINC, SNOMED

OPENHIE COMPONENT

Point of service

Maturity

All maturity model assessments are self-reported by the funded organization leading the software development of the global good.

Maturity Matrix: 2023

Global Utility

Country Utilization	**Medium**
Country Strategy	**Medium**
Digital Health Interventions	**High**
Source Code Accessibility	**High**
Funding and Revenue	**Medium**

Community Support

Community Engagement	**Medium**
Community Governance	**High**
Software Roadmap	**Medium**
User Documentation	**Medium**
Multi-Lingual Support	**High**

Software Maturity

Technical Documentation	**Medium**
Software Productization	**Medium**
Interoperability and Data Accessibility	**High**
Security	**High**
Scalability	**High**

Resources

Documentation URL
https://github.com/opensrp/fhircore/wiki

Architectural Documentation URL
https://github.com/opensrp/fhircore/wiki

Issue Tracking URL
https://github.com/opensrp/fhircore/issues

Troubleshooting URL
https://github.com/opensrp/fhircore/wiki

Functional Spec URL
https://github.com/opensrp/fhircore/wiki

Community

There are around 400 members of our online community. This includes around 150 very active participants from organizations that maintain, deploy, and build platforms based on OpenSRP. The community is made up of implementing partners, technical implementers, software engineers, project managers, and others working on projects and software related to OpenSRP from countries including Kenya, Tanzania, Bangladesh, Malawi, Indonesia, Zambia, Pakistan, United States of America.

PLATFORMS / MAILING LISTS

The community uses a Slack group for day-to-day communication, a number of public github repos to track development progress, and its scheduled bi-monthly calls to convene. We do a bi-monthly governance call with our community. We also have regular technical meetings on video calls and slack.

Sustainability

Ona systems is the technical steward of the platform. We have a governance group consisting of local tech and implementing partners. We have a strong core of technical partners that contribute to the development and support of the platform. OpenSRP is supported through grant and implementation funding. Key funders over the last 5 years are UNICEF, Bill and Melinda Gates Foundation, WHO, Last Mile Health, Village Reach, Patrick J. McGovern, USAID, PATH Digital Square, J&J, Mastercard

Linked Registries & Initiatives