Field Notes - Projects we are hearing about

This is a place to capture implementation notes concerning the projects that the OpenHIE and DUC Communities are hearing about. The information is captured based upon the information that was understood at the time of capture. We know it is not perfect, but the intent is to help provide an idea of what is going on in the field. We welcome your additions/ changes / updates. You must be logged into add to or update the log and revisions are being tracked. The projects may be sorted by clicking on the column headings.

COUNTRY (where is the implementation happening)	PROJECT NAME	USE CASE / GOALS (What is the project trying to accomplish)	SCALE	STATUS	PROJECT ORGANIZATIONS (who is involved)	Last Updated (Date or reference to where this project was mentioned)	NOTES and additional details. (May include Data Exchanges, technologies and other details)
Gambia	OpenIMIS Implementation				GIZ	2024-04-03 OHIN Call	
Tanzania	OpenIMIS Implementation				GIZ	2024-04-03 OHIN Call	OpenIMIS linked with the payment system and medical report systems. Also linkage with DHIS2 and dashboards.
Cameroon	OpenIMIS implementation	Community-based micro UHC	95 facilities piloting OpenIMIS	Piloting	GIZ, SwissTPH, others	2024-04-03 OHIN Call	OpenIMIS linked to EMRs.
Botswana	HIE			Implemented		2024-03-27 Patient ID Mgmt Collaborative Session	Components include a **TERMINOLOGY SERVICE** (OCL), Have a **CLIENT REGISTRY** (OpenCR),r **INTEROPERABILITY LAYER**. Have (OpenHIM)
Botswana	Patient Identity Managemnt	Identify patients across facilities		Implementing		2024-03-27 Patient ID Mgmt Collaborative Session	Using multiple IDs in a **CLIENT REGISTRY** (OpenCR) and working through national registries to identify a patient.
Multiple (Central America and the Dominican Republic)	Cross-Border Epidemiological Surveillance	Cross-border epi surveillance to support migration across countries.		Initiative	SICA / COMISCA, Ministries of Health, Goverment of Korea	2023-08-03 OHIN Call	Challenges include governance, human interoperability and diversity of systems across the countries.
Multiple (Argentina, Belize, Chile, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Panama, Paraguay, Peru, Surinam, Uruguay)	LACPass	Training people in standards (HL7 / FHIR) Two conectathon to to test the cross-border interoperability for vaccine certificates and the IPS.			IDB, Ministries of Health, PAHO, CENS	2023-08-03 OHIN Call	Adopted and adopting SNOMED CT and HL7 FHIR
Brazil	DataSUS	Created a national repository of health data for the MOH. They have a platform of services that allows users to consume the data based upon needs. Have data governance. Enables sharing of information about vaccines and other data in real time. Also supports survellience from both public and private providers.	**NATIONAL**	Production	Ministry of Health	2023-08-03 OHIN Call	Use of OpenSource technologies and standards.
Argentina		Terminology and alignment on data standards. The health system is fragmented with both private and national providers. Created definitions and promoted national terminology and standards across both the public and private sector.	**NATIONAL**	Production	Ministry of Health of the Nation, healthcare providers	2023-08-03 OHIN Call	. SNOMED CT

Country	Project	Description	Stage	Partners	Source	Architecture
Uruguay	National EHR	National architecture for federated systems. Includes private sector and other health organizations.		AGESIC / Salud.Uy, Ministry of Health, healthcare providers	2023-08-03 OHIN Call	**INTEROPERABILITY LAYER**
Costa Rica	(EDUS) Unique Digital Health Records	2016-2018 worked on capturing electronic records in hospitals and deployment of apps to support patient access to appointments, vaccine certificates and medical records. This helped solve the data collection layer.		Costa Rican Social Security	2023-08-03 OHIN Call	
Zimbabwe	Patient Identity Project using a deduplication process.	A national identifier is not used for health. There is an id number generated by the system and given to the patient. The ministry would like to be able to connect all of the facilities together. One challenge is that many patients are nomadic. Use Cases: Continuity of care and Public health management.	Currently have "online" facilities that can push data to the central repository in real time. Approximately have progressed to have 20% online. Also have "offline" facilities that share data, but not in realtime. Currently most facilities are "offline."	Zim-TTech. I-Tech, Vital Wave, and Ministry of Health	2023-07-26 Patient ID Mgmt Collaborative Session	EMRs connect to a central repository through an **INTEROPERABILITY LAYER**. Have **CLIENT REGISTRY** **TERMINOLOGY SERVICE** (OCL) and a SHR. Using biometrics (fingerprints and iris) For matching the team is using a probabilistic algorithm and using multiple mixture of attributes with different weighting.
Rwanda	Rwanda Health Information Exchange	One citizen, one request. Had solutions based upon TB, HIV, Malaria and the solutions were diverse and Rwanda is looking a ways to take a patient viewpoint and ensuring that the data is connected. The shared health record is updated on a regular basis to ensure that the patient's comprehensive information is available to other systems.	Pilot stage for connecting EMRs Have onboarded 65 health facilities		2023-07-20 Facility Registry Call	- Have documented the interoperability standards that they are planning to use for imaging and other standards. - Using OpenHIM for the **INTEROPERABILITY LAYER**. - Using a **CLIENT REGISTRY** and all of the EMRs are connected to the interoperability layer. - Using a **FACILITY REGISTRY** to align on facility name. Planning for all of the systems to use the facility registry to align on names. - also using a shared health record - have a **TERMINOLOGY SERVICE** - have a **HEALTH WORKER REGISTRY**
Kenya	SMART Guidelines standalone app		Pilot	Intellisoft, CDC, Google	OHIE23 E2 Unconference Session	
Uganda	Lab and Hospital system integration	Need to use OpenHIIM for integrating lab systems	3 hospital management systems are being connected	MOH	OpenHIE23	Using OpenHIM (**INTEROPERABILITY LAYER**) to connect with Lab systems and had to integrate the the sample tracking component that links the data to a central lab where people can log in and get their results

Country	Component	Description	Scale	Status	Partners	Reference	Notes
Indonesia	CHISU	OpenHIM as a generic FHIR converter			USAID, Jembi,	OpenHIE23	Created an OpenHIM mediator (**INTEROPERABILITY LAYER**)
Malawi	IHRIS / Health Worker Registry			In Progress	MOH	OpenHIE23	
Malawi	PMCT / Product Catalog **PRODUCT CATALOG**			In Progress	MOH	OpenHIE23	Capture trade items and use GS1 standards.
Malawi	**TERMINOLOGY SERVICE**	Putting terminology into the system and used for mapping between DHIS2 and OpenIMIS			MOH	OpenHIE23	
Malawi	Health **FACILITY REGISTRY**			Implemented	MOH		Presented at OHIE23 Includes facility details Used in the integration with other systems to map facilities
Ethiopia	National ID	Patient identity using biometrics	National	Starting	Mekelle University, MOH, Gondar	2023-05-01 (OHIE23 Day 1)	Uses eCHIS and Simprint
Nigeria	National Biometrics Collaborative	Capture Fingerprints to assist with patient Identity	HIV program 85% of patients are captured		PHIS3	2023-04-26 Patient ID Mgmt Collaborative Session	Working on FHIR support for APIs. Also have experience sharing data with DHIS2, EMRs and Labs.
Nigeria	National Concept dictionary			Starting		2023-04-07 Terminology Service Call	
Philippines	eHealth Strategy Philippines	Blueprint / Architecture	**NATIONAL**	Published	Ministry of Health	2023-03-29 OHIN Call	
Tanzania	Tanzania Blueprint	Blueprint / Architecture	**NATIONAL**	Published	Ministry of Health	2023-03-29 OHIN Call	
Sri Lanka	Sri Lanka Digital Health Blueprint (V1.0b)	Blueprint / Architecture	**NATIONAL**	Published	Ministry of Health	2023-03-29 OHIN Call	
Malawi	Master Patient Index (DDE) Patient Matching **CLIENT REGISTRY**	For case reporting from a central repository	around 170 sites		Ministry of Health EGPAF	2023-03-29 Patient ID Mgmt Collaborative Session	- DDE is built on top of Ruby on Rails. - FHIR standards. - Offline first architecture. - Produces a pre-generated non-identifiable patient ID for every client. These IDs are physically printed as barcodes and placed as stickers on the patient's Health Passport. - Currently 6 million unique clients registered.
Haiti	Haiti Master Patient Index (Client Registry)	Lost to follow up patient transfer labs Uses patient look up to avoid duplication of patients	**PILOT** The initial scale for the pilot is for a specific EMR to a central repository. Aligning terminologies to move toward support for other EMRs.	Pilot (two sites to start and learn about infrastructure and needs)	DIGI	2023-03-29 Patient ID Mgmt Collaborative Session	- Using FHIR standards including PIXm and PDQm - Integrates with a fingerprint registry - focus on integration between an EMR (Esante Plus, an OMRS Haiti implementation) and a client registry
Mozambique	interoperability solution	interoperability solution between the national Civil Registration and Vital Statistics electronic system (eSiRCEV) and the Vital Events Community Surveillance system (SIS-COVE) of the National Institute of Health (INS) of Mozambique.		Implementing	The Ministry of Justice, Constitutional and Religious Affairs of Mozambique with technical support from the Jembi Mozambique	2023/03 Jembi Mozambique Newsletter #7/2023	

Country	Project	Description	Scope	Status	Partners	Meeting	Technology
Uganda	**Differentiated Service Delivery Models in UgandaEMR to Decongest Facilities (EMR for DSDM)**	Need to better understand the number of people being served by a facility and treat in the community where possible.	60+ pharmacies 42K patients / 60 facilities	Implementing	Ministry of Health, Makerere University School of Public Health, CDC, Monitoring and Evaluation Technical Support (METS) Program, University of California San Francisco	2023-03-09 Treatment Continuity (DUC Meeting)	OpenHIM, FHIR Data is also synchronized from the Mobile to the EMR and there is another use case where data is synced with the central repository
Malawi	Community-based ART Retention and Suppression (CARES) App	Community EMR app to collect the same data as the EMR on community visits		Testing	Lighthouse Trust, I-Tech Malawi, Comcare	2023-03-09 Treatment Continuity (DUC Meeting)	Comcare application with ability to send and receive data from the EMR Planning to add hypertension model in the future.
Lao People's Democratic Republic	GeoPrism Registry	Interlinking systems (like OpenHIE registries) by common geographies for the correct periods of time. **HEALTH WORKER REGISTRY** **FACILITY REGISTRY** GeoPrism Registry uses the GeoPrism spatial knowledge graph dependency management framework	**NATIONAL**	Implemented	TerraFrame, Clinton Health Access Initiative (CHAI), Health GeoLab Hub, Vital Wave	2023-03-23 Facility Registry Call (Presentation - see recording and notes) 2023-02-24 OHIE Architecture & Standards Call	FHIR, GeoJSON, VectorTiles Direct integration with DHIS2 and Reveal.
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Sri Lanka	Information Exchange	Interoperability between HMIS and OpenMRS. Working on implementing FHIR standard	**NATIONAL**	Implementing	Ministry of Health	2023-02-24 OHIE Architecture & Standards Call	HapiFHIR
Kenya	The Local Health System Sustainability Project - Cross Border Digital Health Solution	Patient Identity for reporting	**MULTI-NATIONAL** **PILOT** (scope to rest of EAC countries)	Development	IntelliSOFT Consulting	2023-02-24 OHIE Architecture & Standards Call	OpenHIM and EMR HapiFHIR SHR Standards : FHIR / Client Registry / OCL Terminology Services: CIEL / OCL S/W solution: OpenMRS, DHIS2
Uganda	The Local Health System Sustainability Project - Cross Border Digital Health Solution	Tracking patients along the border of Kenya and Uganda. Patient Identity for reporting	**MULTI-NATIONAL** **PILOT** (scope to rest of EAC countries)	Development	IntelliSOFT Consulting	2023-02-24 OHIE Architecture & Standards Call	OpenHIM and EMR HapiFHIR SHR Standards : FHIR / Client Registry / OCL Terminology Services: CIEL / OCL S/W solution: OpenMRS, DHIS2
Multiple Countries	PSI Digital Health consumer interventions	Consumer app to drive consumers to facilities for interventions (referral app)			PSI	2023-02-24 OHIE Architecture & Standards Call	RapidPro /WFA>OpenHIM > HapiFHIR > NiFi > Postgres > Superset OpenHIM/ HapiFHIR/ WA/ SMS /FBM/ Superset/ PBI
Multiple Countries	Training / Capacity Building	OHIE Certificate reimbursement program - OHIE session in AeHIN General Meeting (Indonesia Oct 2023)		Planning	AeHIN	2023-02-24 OHIE Architecture & Standards Call	

Country	Project	Description	Status	Phase	Partner	Call/Link	Notes
Philippines	Training / Capacity Building	promote OHIE Academy as free training for DOH and PHIC staffers, general public - encourage DOH /PHIC to look for OHIE certificate for employments - offer Virtual Instructor-led Training (on academy. ohie.org) - offer face-to-face training (on acade my.ohie.org)			UP Manila - Standards & Interoperability Lab (UPM-SILab)	2023-02-24 OHIE Architecture & Standards Call	Applying WHO SMART Guidelines for FHIR profiles/IG development (eg, viral hepatitis, liver diseases, etc) connectathon among EMR developers using the FHIR profiles with DOH/PHIC/WHO observing
Sri Lanka	Debt2Health	Breaking silos between hospitals. Created a Digital health bluepriint and NDC health care and TB EHR	NATIONAL	Development	Global Fund	2023-02-24 OHIE Architecture & Standards Call	CR and other building blocks are being put in place as well as a client portal. Also looking at OCL.
		OpenMRS based EMR for Primary Healthcare cluster			Asian Development Bank (ADB)	2023-02-24 OHIE Architecture & Standards Call	connectathon among EMR developers using the FHIR profiles with DOH/PHIC/WHO observing
Multiple Countries	AeHIN Community of Interoperability Labs (COIL)	Demonstration of syndicated TS between Region and PH ontoserver (eg, medications)				2023-02-24 OHIE Architecture & Standards Call	Regional Terminology Server ontoserver (c/o SIL-Thailand) - Regional Terminology Server ontoserver (c/o SIL-Thailand) - National TS ontoserver (c/o UPM-SILab)
	WSO2 based Interoperability layer OCL	TS OpenMRS based cluster EMR Sunbird based PR				2023-02-24 OHIE Architecture & Standards Call	
Ethiopia, Chile, Malawi?	Terminology Service Implementation		NATIONAL	Maintenance	CENS (Chile)	TS Implementer Series: Chile	
Kenya	Terminology Service Implementation	National Health Data Dictionary	NATIONAL	Early implementation, work ongoing	Palladium University of Nairobi		
Nigeria	OpenMRS 3.X and OCL Terminology Service Implementation			Started	PHIS3		
Sri Lanka	OCL Terminology Service Implementation			Started	MOH Sri Lanka		
N/A	OpenMRS ANC Reference Implementation	OpenMRS is implementing ANC SMART Guidelines to do things like Decision Support	PILOT	Development	OpenMRS WHO	https://www. youtube.com /watch? v=w_wuUoFAp7I	