



Republic of Rwanda
Ministry of Health

Overview of Primary Care systems and interoperability in Rwanda

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National e-Health Coordinator



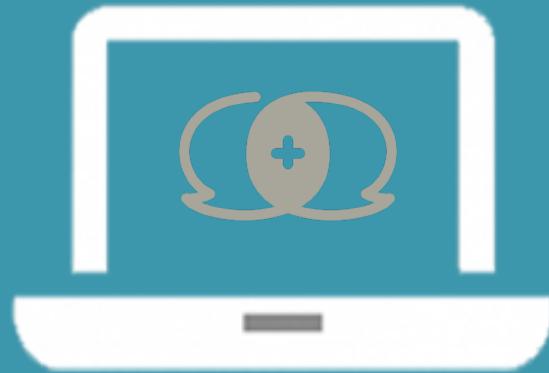
Republic of Rwanda
Ministry of Health



RapidSMS



Rwanda HMIS



RHIE

What Is e-Health

E-health refers to the Use of Information and Communications Technologies to Provide and Support Healthcare service delivery by:



Efficient delivery of healthcare services over the full continuum of care;



Transformed health sector decision-making culture into one that is firmly supported by accurate, timely and relevant information



A clearly defined architecture and standards for integrated and interoperable e-Health systems with defined standards.

Goals & Objectives of RapidSMS-MCH



VISION

No woman & child should die because of preventable & curable conditions



MISSION

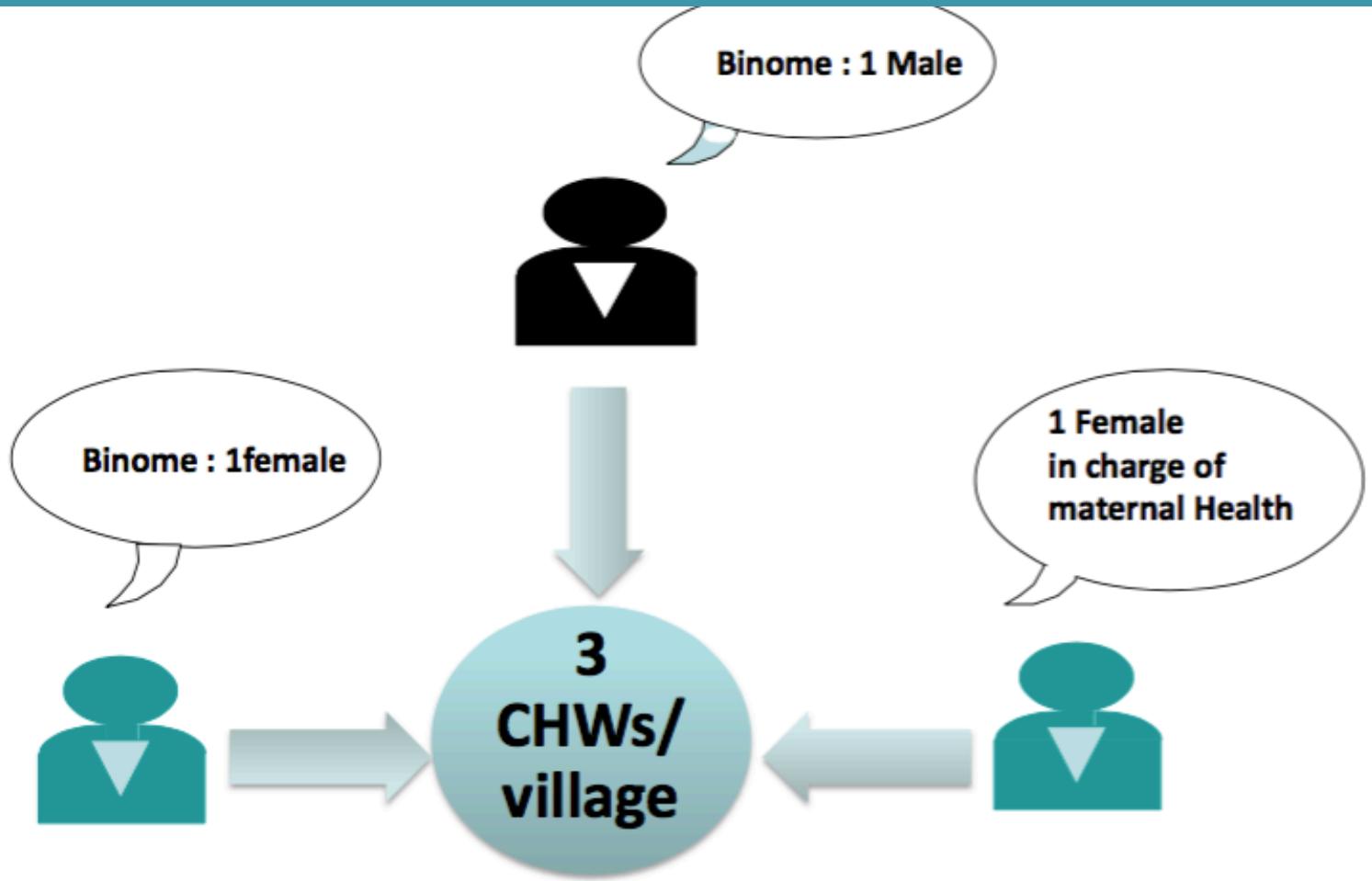
To serve the mothers, children and government of Rwanda through the use of innovative technology tool that can save the lives by tracking pregnant women and children under two years of age



CORE VALUES

Ownership ,
Community Centric
Approach, Creativity
& Positive Attitude

CHWs



Criteria to be selected as CHW

- Accept volunteer status and live in the village;
- Accessible Person;
- Honest;
- Can read and write;
- Age : 20 – 50 years;
- Elected by the community

Why Did We Start RapidSMS?



**Delays Causing
Maternal Death
During Pregnancy**



What Is The Program Logic?

Use RED ALERTS appropriately

Register 100% of "PRE"

Ensure assisted deliveries

Follow up on all "RISK" and risky pregnancies

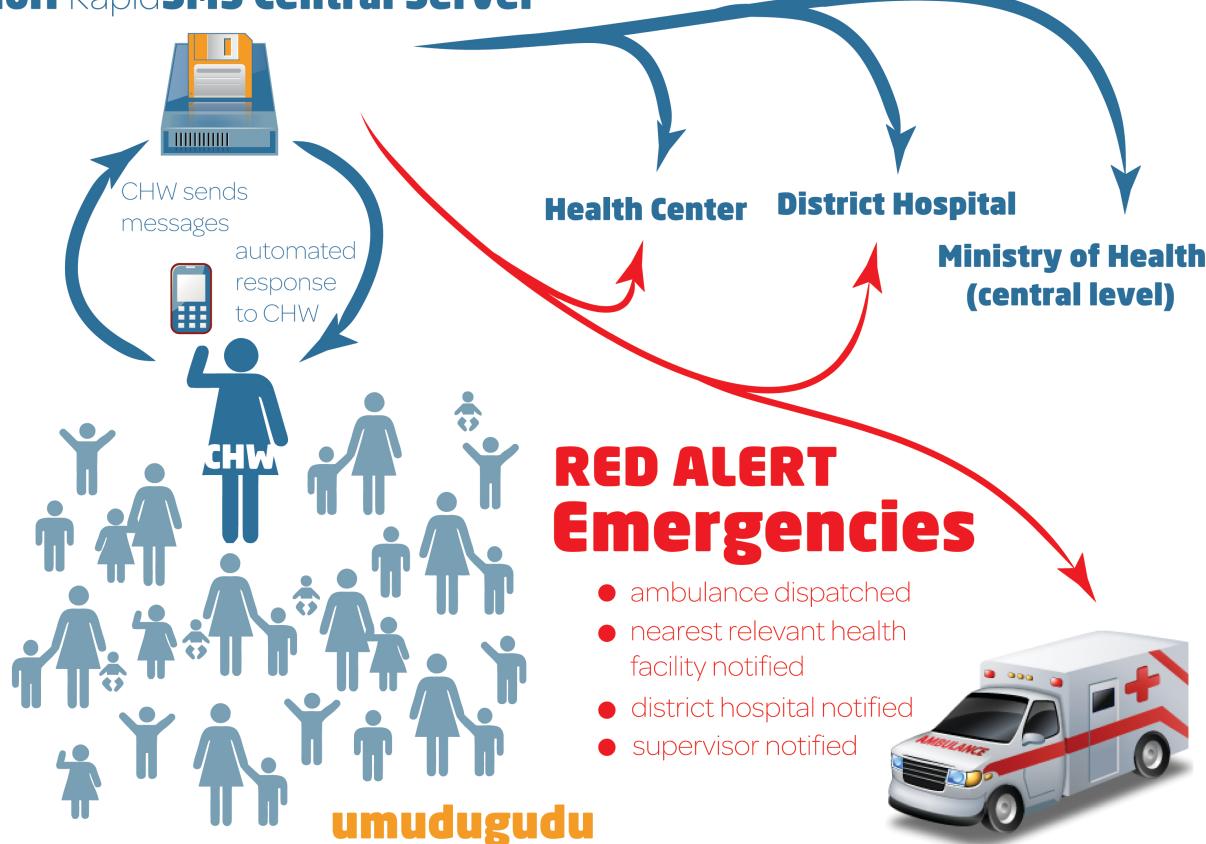




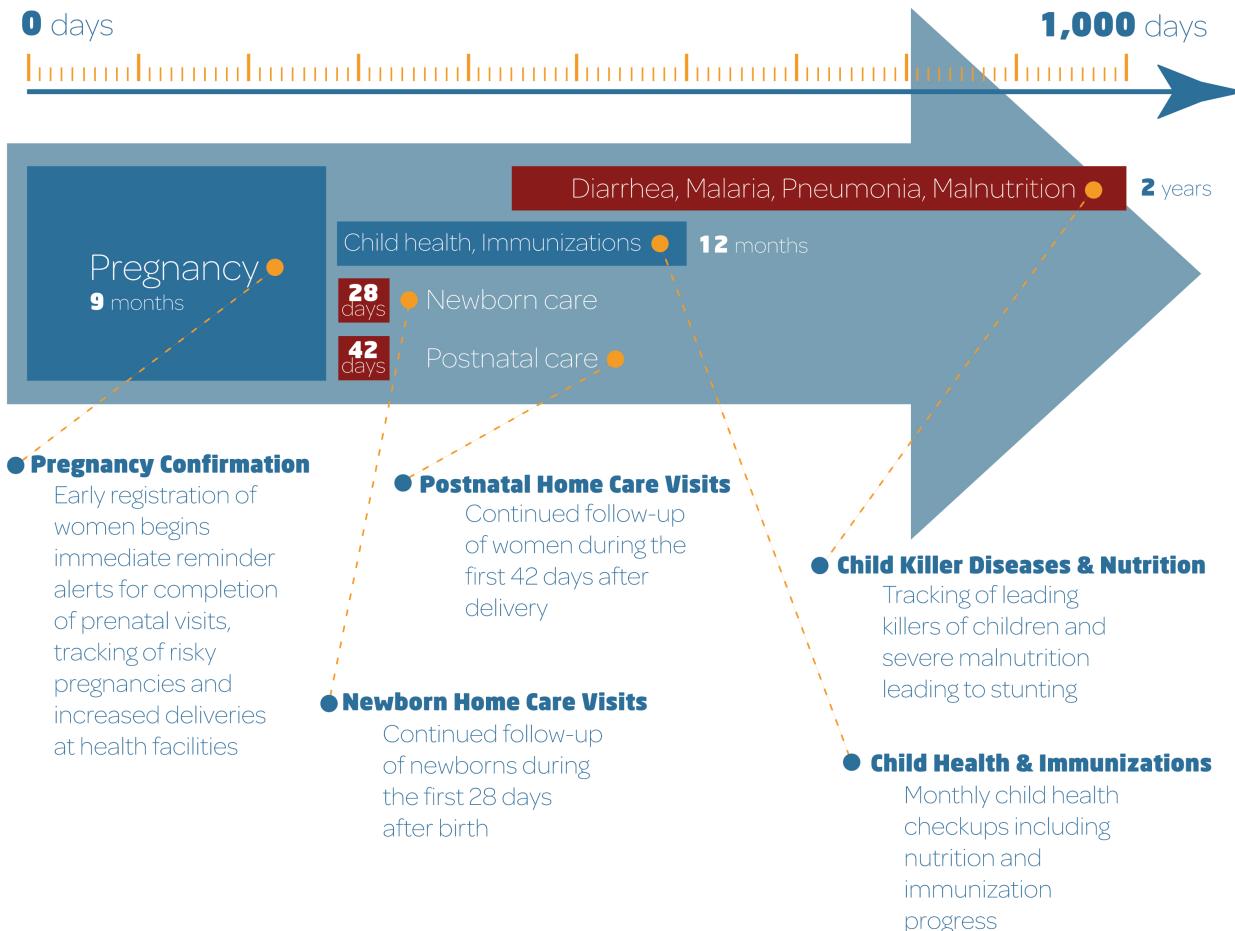
MoH User Interface

- easy remote web access by all stakeholders
- provides countrywide data on maternal and child health

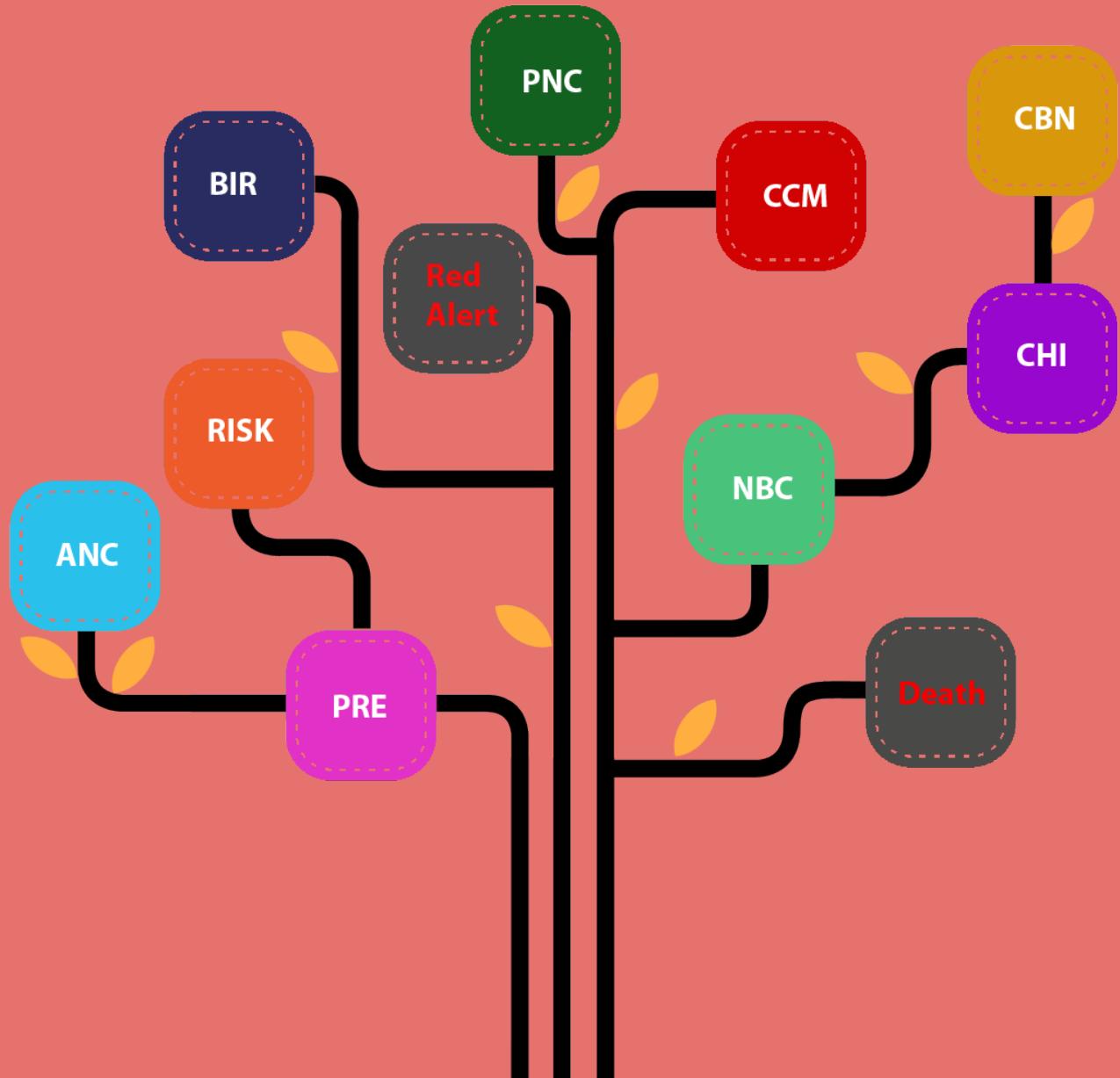
MoH RapidSMS Central Server



Continuum of Care Model



What Does RapidSMS Track?



R-HMIS Dashboard

How to fix QGIS error "Entr x DHIS 2 Settings

192.168.2.102/hmis/dhis-web-dashboard-integration/index.action

Suggested Sites Web Slice Gallery Imported From IE PBF Rwanda

Rwanda HMIS Maintenance Services Help Log out

Dashboard Write feedback 52 unread messages

Insert Close Clear Map views Malaria OPD Cases Malaria OPD proportional Morbidity Rate

Insert Close Clear Resources Canevas HMIS DH English Canevas HMIS HC English Canevas HMIS Private Clinic English Canevas HMIS Private Dispensary English Canevas HMIS Referral Hospital English

Insert Close Clear This is a link area, click 'insert' and select links

Insert Close Clear Explore Malaria Cases in OPD by Province Malaria cases

Province	Cases (2012)
KIGALI CITY	~10,000
NORTH	~5,000
EAST	~125,000
WEST	~15,000
SOUTH	~40,000

Insert Close Clear Explore Malaria OPD cases by month Rwanda

Month	Cases (2012)
August 2011	~10,000
September 2011	~30,000
October 2011	~20,000
November 2011	~10,000
December 2011	~30,000
January 2012	~20,000
February 2012	~10,000
March 2012	~25,000
April 2012	~40,000
May 2012	~50,000
June 2012	~55,000
July 2012	~25,000

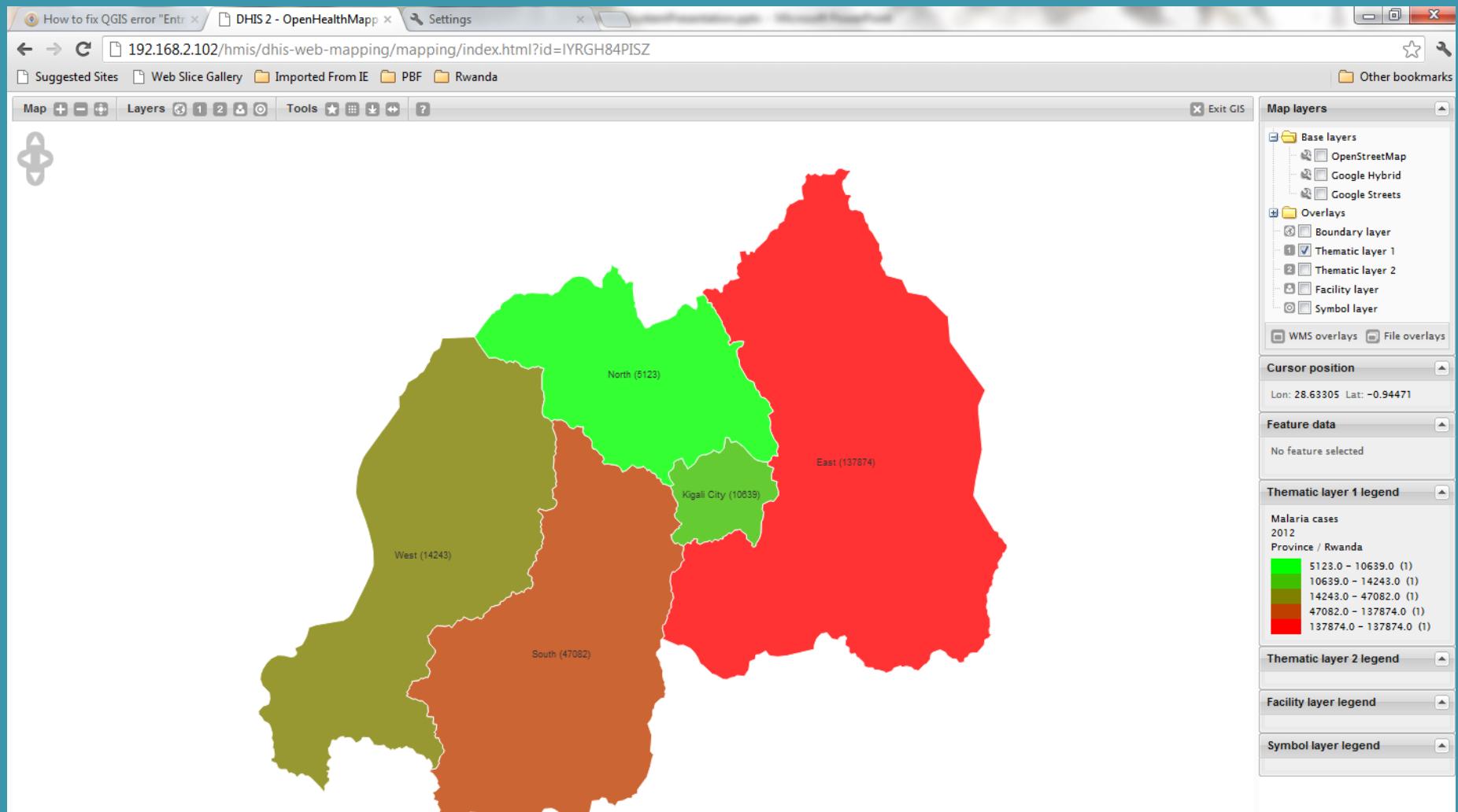
Insert Close Clear Explore ANC registrations and Live Births Rwanda

Month	ANC Registrations (Blue)	Live Births (Red)
Aug 2011	~20,000	~30,000
Sept 2011	~22,000	~28,000
Oct 2011	~20,000	~25,000
Nov 2011	~22,000	~28,000
Dec 2011	~22,000	~32,000
Jan 2012	~22,000	~30,000
Feb 2012	~22,000	~28,000
Mar 2012	~22,000	~25,000
Apr 2012	~22,000	~28,000
May 2012	~22,000	~25,000
June 2012	~22,000	~28,000
July 2012	~22,000	~25,000

Insert Close Clear Explore Malaria Case Fatality Rate Rwanda

Month	Rate
Aug 2011	~4.0
Sept 2011	~3.5
Oct 2011	~3.0
Nov 2011	~2.0
Dec 2011	~3.5
Jan 2012	~4.0
Feb 2012	~3.5
Mar 2012	~2.5
Apr 2012	~2.2
May 2012	~2.5
June 2012	~2.0
July 2012	~1.8

RHMIS data mapped



SECURITY and Confidentiality

- SSL: Secure Socket Layer(cryptographic protocol which provide secure communication on internet ie https)
- Using Keys to login in the server
- Firewall(Filtering traffic)

USERS

- Unique username and Password.
- Logs monitoring.
- **BACKUP (Automatic backup NDC to MOH)**

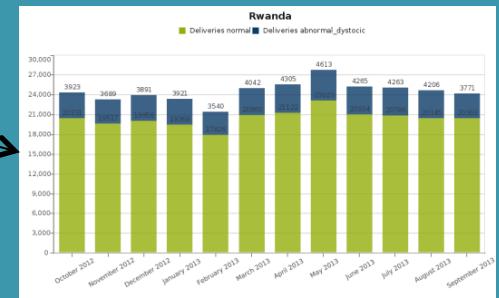
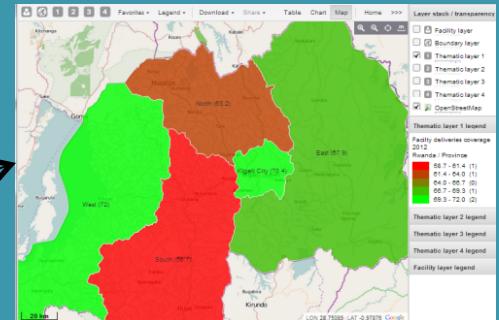
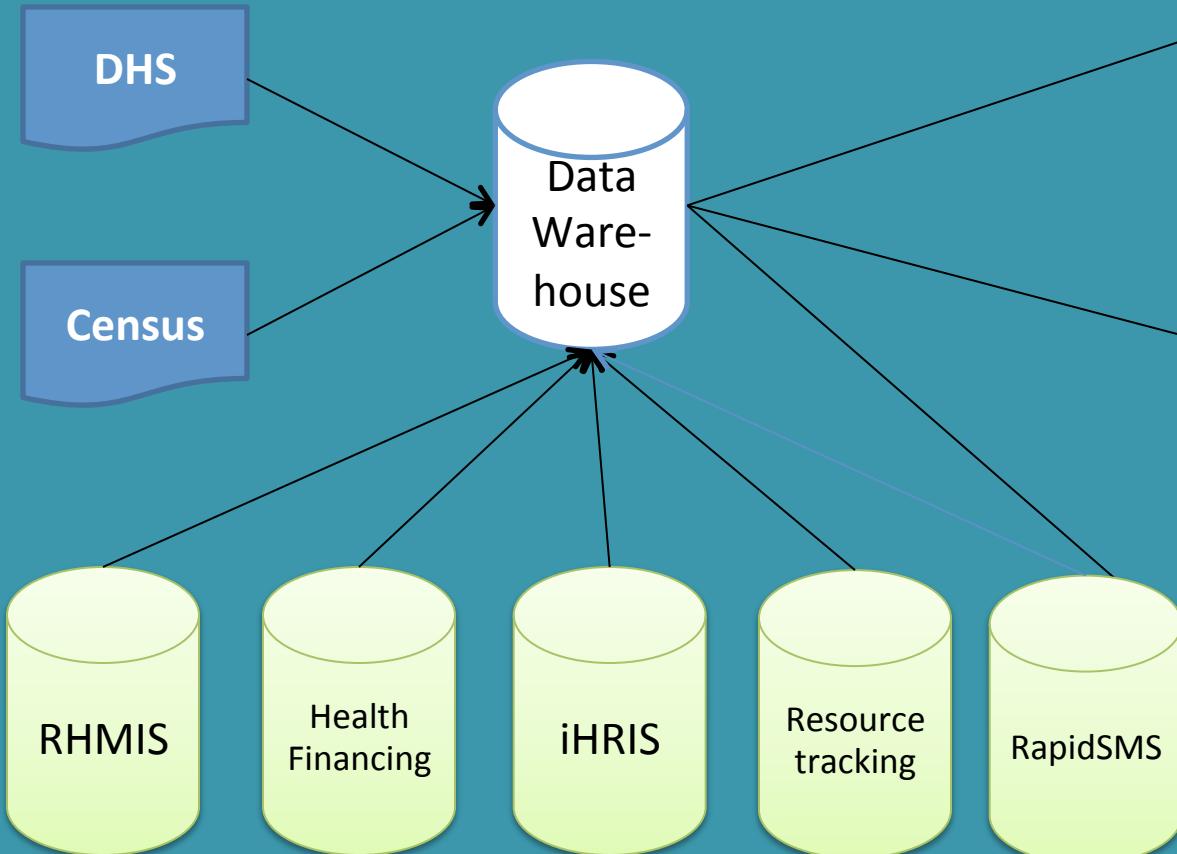
Others

- . Data Sharing policy

Inputs

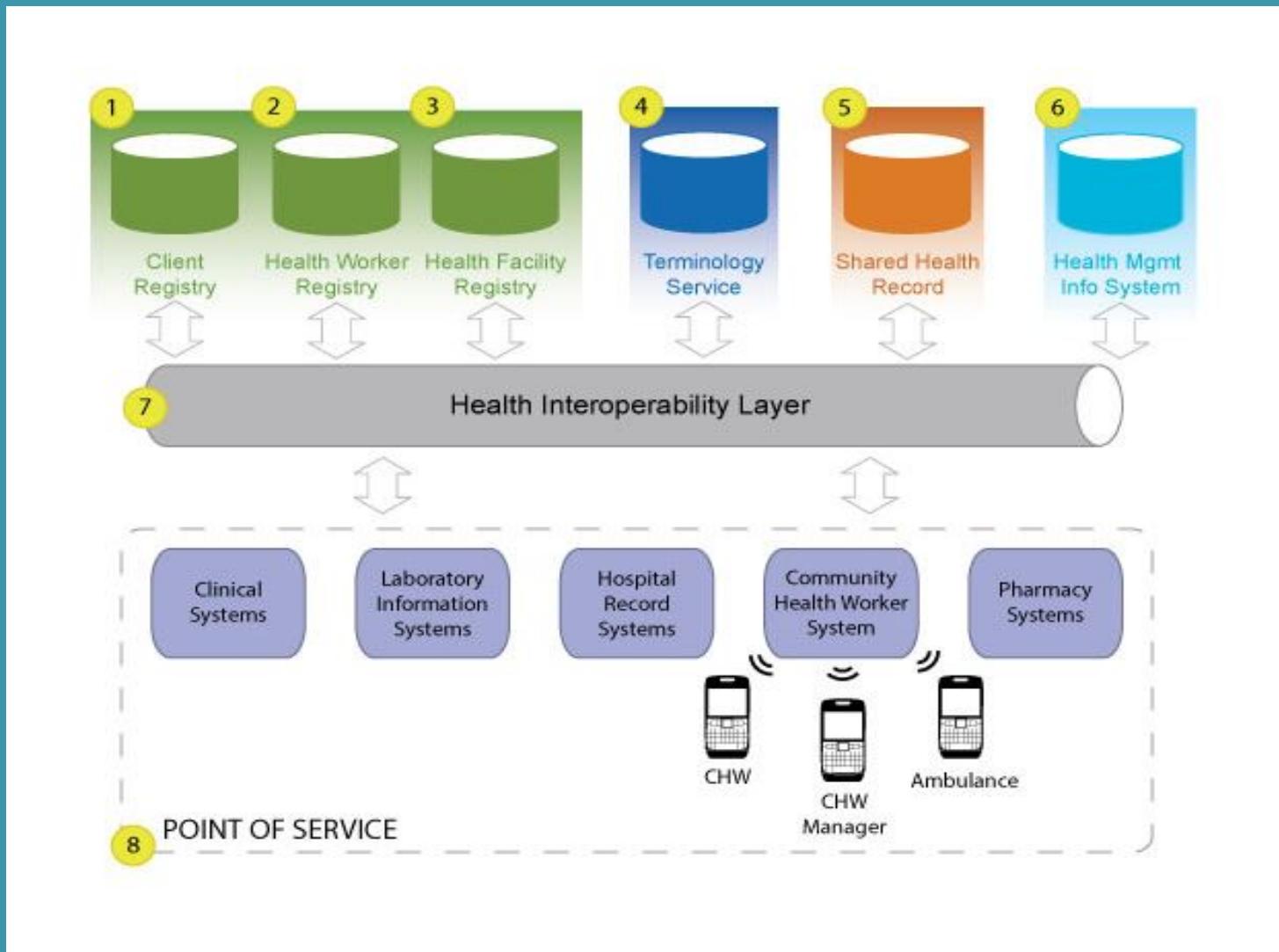
Rwanda Health Data Warehouse

Outputs



	October 2012	November 2012	December 2012	January 2013	February 2013	March 2013
ANC registration coverage rate						
East	86.7	87.4	78.5	109.2	97.7	70.5
Kigali City	87.2	84.8	68.9	98.9	87	78.8
North	70.4	69.3	62.1	80.9	74.7	58
South	69.4	72.2	63.7	87.2	77.5	60.2
West	90.4	89.2	77.7	100.9	84.8	75.4
Total	404.1	402.9	360.9	477.1	421.7	342.9

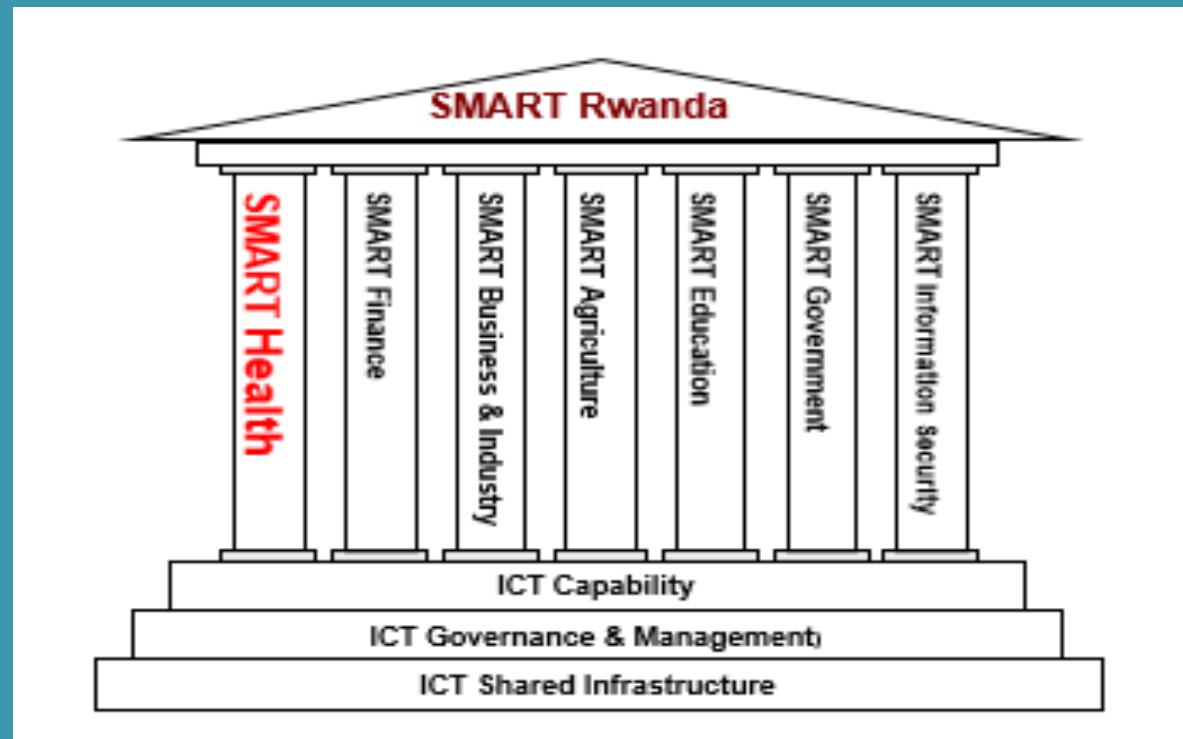
HIE Structure



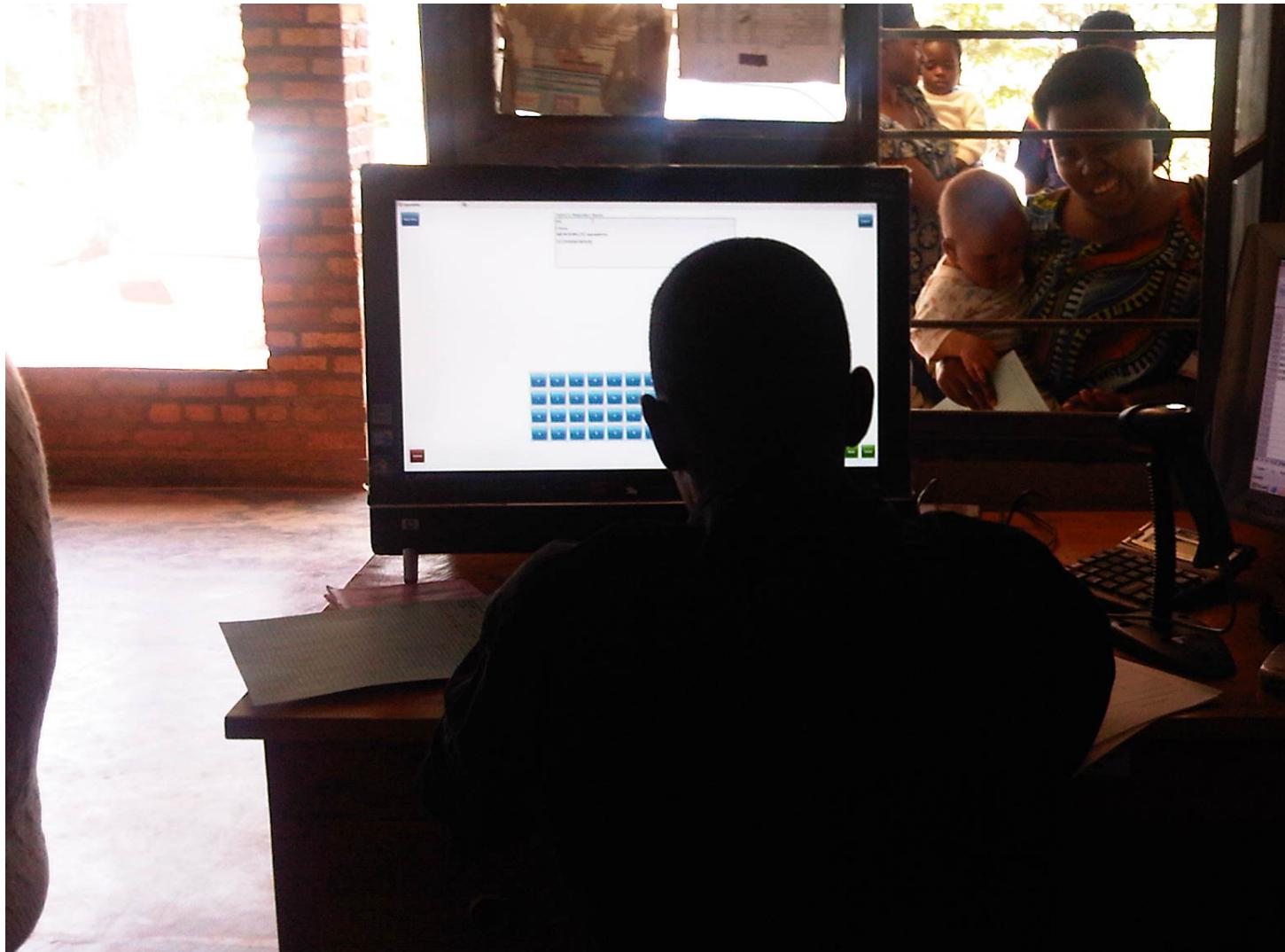


Why to Migrate /or use EMR?

- ❖ The Government of Rwanda has chosen to use **OpenMRS** as a national electronic medical record system
- ❖ Smart health (health sector is among 4 sectors that were chosen to be 7 pillars of ICT in Rwanda as part of vision 2020)



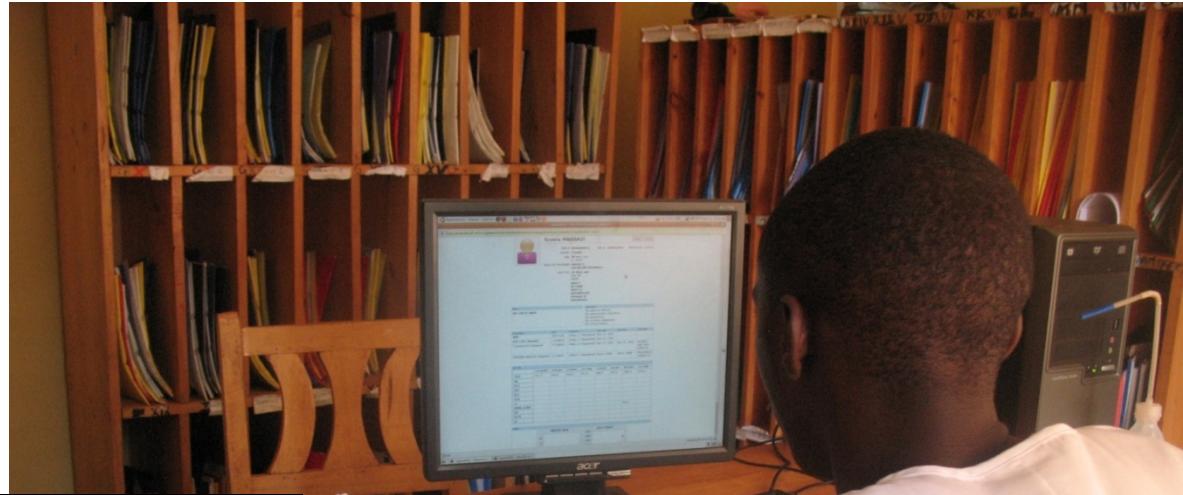
Patient registration at KPH



Bar-code Reader for Rapid Retrieval of Patient Records



Direct EMR Access



Challenges for eHealth systems deployment

- Equipment , Power supplies and Connectivity
- Data Management and Quality control
- ICT Literacy
- High cost of some initiatives/Sustainability
- Training :
 - Doctors and Nurses
 - Managers

Experience applicable to other countries

- Government/Political support
- Ownership of the solution
- Use of open sources
- Organized hierarchy
- e-Health TW



MUGABE
ZO MU NDACOGORA
AKARERE KA

THANKS FOR YOUR ATTENTION !