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Maternal and Child Survival Program

Institutionalizing Community Health Conference

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Community Health Information Systems:

Integrating community data into the health information system in Rwanda

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Outline

- Background on the community health program
- The Community Health Information Systems
  - Overview
  - HMIS
  - Rapid SMS
- Data use
- Successes and challenges

Background of Community Health Program in Rwanda: What is a CHW

Male or Female elected by members of the village and are accountable of the village they serve. The elected CHW should:

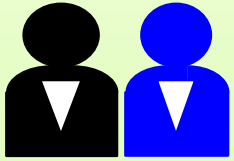
- Be living in the village
- Be qualified, honest and accountable
- Agree for voluntarism
- Have a P6 education minimum

CHWs are more accessible, acceptable by clients in their communities and less expensive

CHW performing a malaria test on a child. Photo KT Press

CHWs in Rwanda

Cell Coordinator:
Senior CHW overseeing multiple villages



Binome:
1 female & 1 male in charge of iCCM

ASM:
1 Female in charge of Maternal Health

- Team of three CHWs per village
- Technically supervised by the HC staff and administratively supervised by the in charge of social affairs (cell, sector, district)
- Receive financial compensation through PBF: based on a set of performance indicators from monthly reports
- Implement income generating activities through CHWs cooperatives

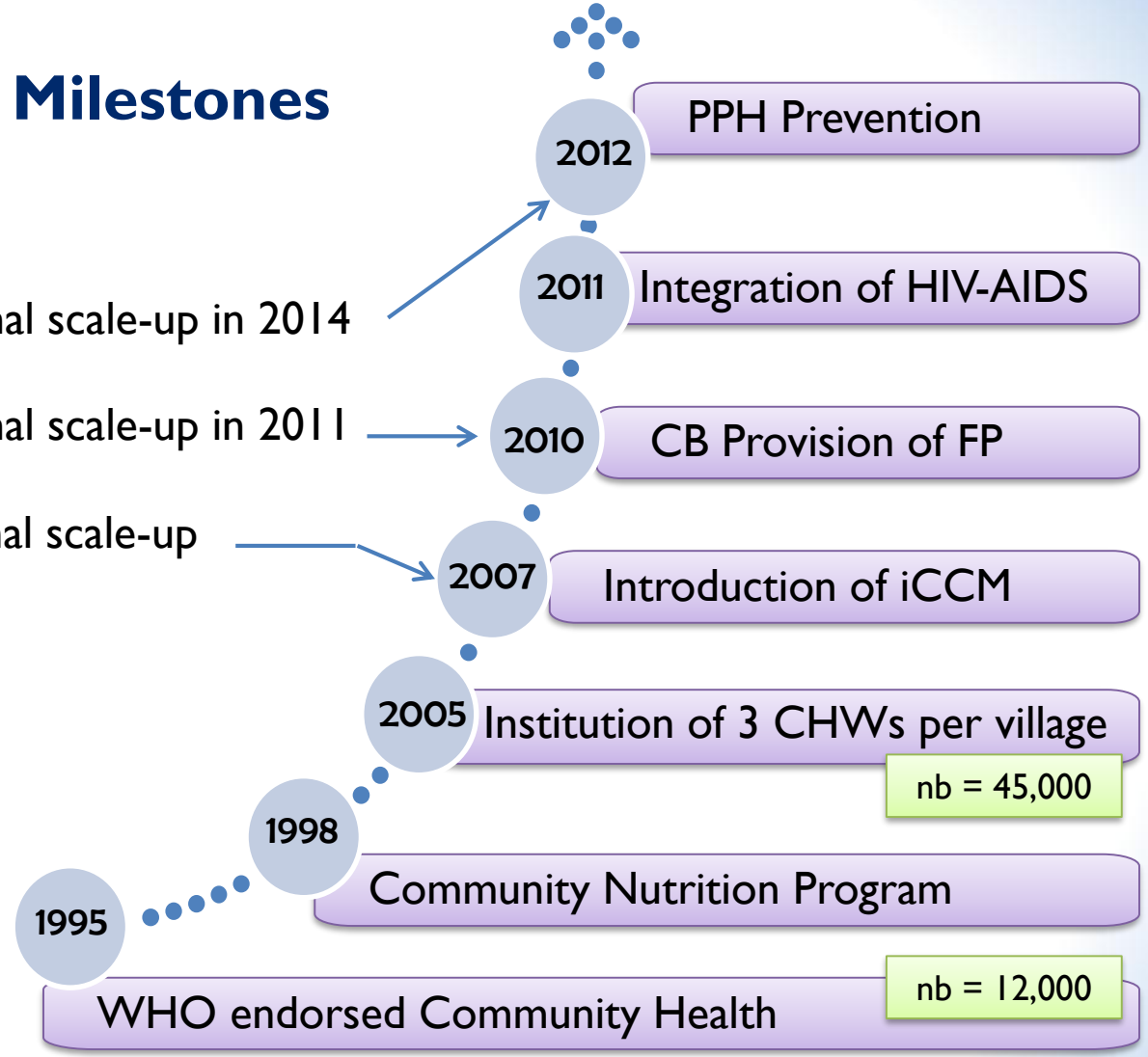
Community Health Milestones

Pilot in 3 districts before national scale-up in 2014

Pilot in 3 districts before national scale-up in 2011

Pilot in 8 districts before national scale-up

In 2015-2016, CHWs started treating malaria among adults countrywide

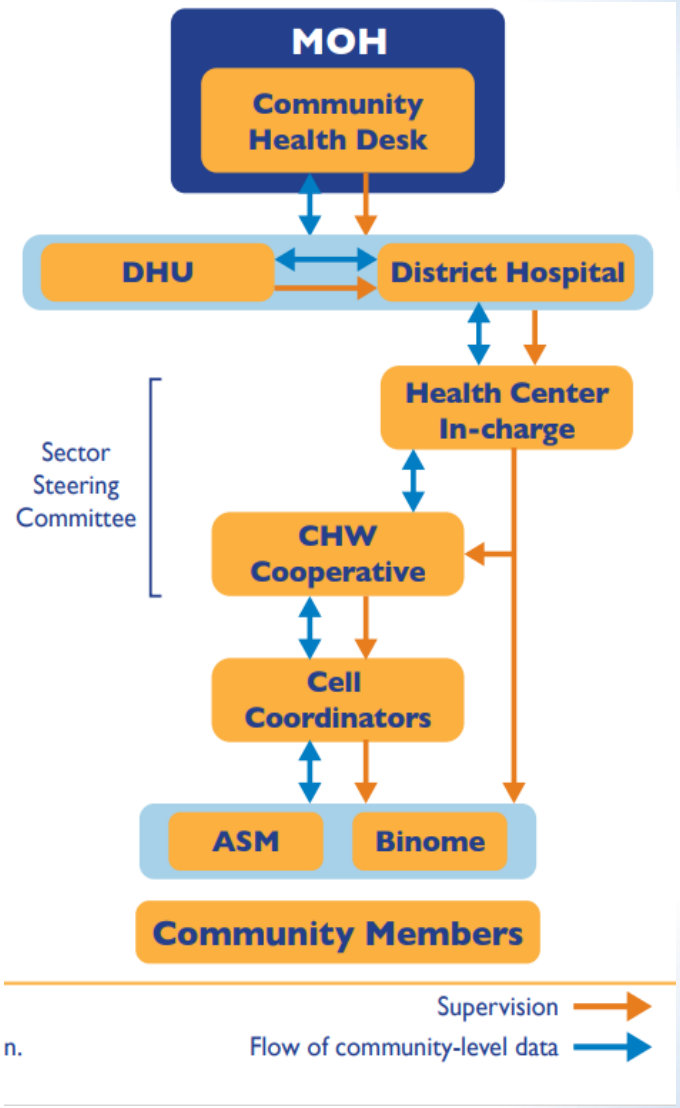


CHWs in the Health System

- Organization of the Health System :

Subdivision	Health Service
4 Provinces + the City of Kigali	8 referral hospitals 4 Provincial hospitals
30 districts	35 district hospitals
416 Sectors	465 health centers
2,148 cells	44,511 CHWs
14,837 villages	

- All CHWs are organized into cooperatives. Each health center oversees one CHW cooperative



The Community Health Information Systems

The M&E system for community interventions is done through different national data collection and reporting tools managed by web based interface.

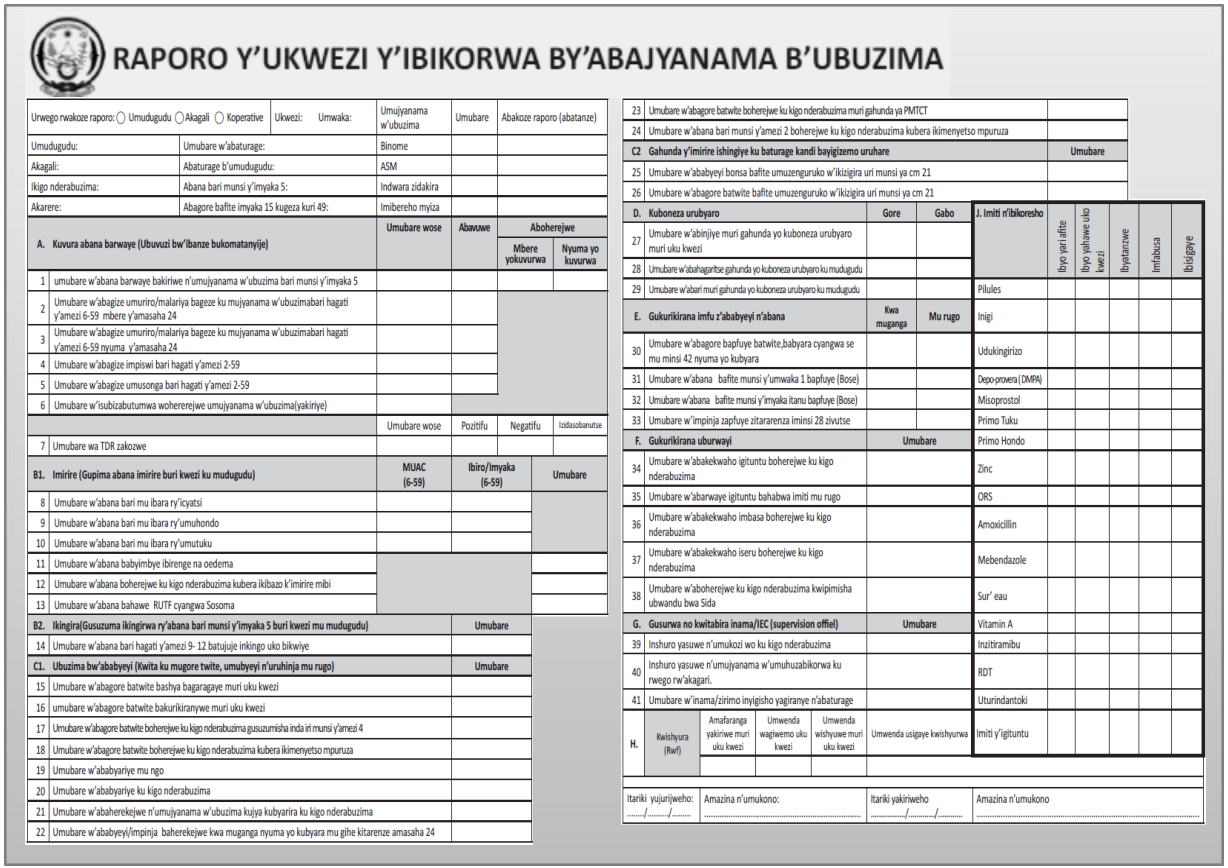
Tools include:

- National standard paper based source document (registers)
- Paper-based monthly summary form
- DHIS-2/SISCOM
- Rapid SMS

History of HIS for community Health Program

Year	Health Information system	Current status
1995-1998	• Paper based reporting only and excel sheet used at HC and Hospital	Excel no longer used
1998- 2007	• Paper based at village, cell and CHWs cooperative • Aggregated data managed using Access software	Access no longer used
2007-2010	• Paper based at village, cell and CHWs cooperative • Use of M-Ubuzima by CHWs Binomes • Use of Rapid SMS by CHWs ASMs • Access software to manage PBF data	M-Ubuzima no longer used
2012- to date	• Paper based at village, cell and CHWs cooperative • Use of HMIS-DHIS-2 that integrates over 11 modules including SISCOM, PBF, what was reported through M-Ubuzima, Maternal and child death surveillance (verbal autopsy).. • Use of Rapid SMS by all CHWs (Code card paper based, then send SMS of individual record)	

Services areas tracked



RAPORO Y'UKWEZI Y'IBIKORWA BY'ABAJYANAMA B'UBUZIMA

Urwego rwakoze raporo: ◯ Umudugudu ◯ Akagali ◯ Koperative	Ukwezi: Umwaka:	Umujyanama w'ubuzima	Umubare	Abakoze raporo (abatanze)
Umudugudu:	Umubare w'abaturage:	Binome		
Akagali:	Abaturage b'umudugudu:	ASM		
Ikigo nderabuzima:	Abana bari munsi y'imyaka 5:	Indwara zidakira		
Akarere:	Abagore bafite imyaka 15 kugeza kuri 49:	Imibereho myiza		

	A. Kuvura abana barwaye (Ubuvuzi bw'ibanze bukomatanyije)	Umubare wose	Abavuwe	Aboherejwe	
				Mbere yokuvurwa	Nyuma yo kuvurwa
1	umubare w'abana barwaye bakiriwe n'umujyanama w'ubuzima bari munsi y'imyaka 5				
2	Umubare w'abagize umuriro/malariya bageze ku mujyanama w'ubuzimabari hagati y'amezi 6-59 mbere y'amasaha 24				
3	Umubare w'abagize umuriro/malariya bageze ku mujyanama w'ubuzimabari hagati y'amezi 6-59 nyuma y'amasaha 24				
4	Umubare w'abagize impiswi bari hagati y'amezi 2-59				
5	Umubare w'abagize umusonga bari hagati y'amezi 2-59				
6	Umubare w'isubizabutumwa woherejwe umujyanama w'ubuzima(yakiriye)				

		Umubare wose	Pozitifu	Negatifu	Isidasobanutse
7	Umubare wa TDR zakozwe				

	B1. Imirire (Gupima abana imirire buri kwezi ku mudugudu)	MUAC (6-59)	Ibiro/Imyaka (6-59)	Umubare
8	Umubare w'abana bari mu ibara ry'icyatsi			
9	Umubare w'abana bari mu ibara ry'umuhondo			
10	Umubare w'abana bari mu ibara ry'umutuku			
11	Umubare w'abana babyimbye ibirenge na oedema			
12	Umubare w'abana boherejwe ku kigo nderabuzima kubera ikibazo k'imirire mibi			
13	Umubare w'abana bahawe RUTF cyangwa Sosoma			

	B2. Ikingira(Gusuzuma ikingirwa ry'abana bari munsi y'imyaka 5 buri kwezi mu mudugudu)	Umubare
14	Umubare w'abana bari hagati y'amezi 9- 12 batujuje inkingo uko bikwiye	

	C1. Ubuzima bw'ababyeyi (Kwita ku mugore twite, umubyeyi n'uruhinja mu rugo)	Umubare
15	Umubare w'abagore batwite bashya bagaragaye muri uku kwezi	
16	umubare w'abagore batwite bakurikiranywe muri uku kwezi	
17	Umubare w'abagore batwite boherejwe ku kigo nderabuzima gusuzumisha inda iri munsi y'amezi 4	
18	Umubare w'abagore batwite boherejwe ku kigo nderabuzima kubera ikimenyetso mpuruza	
19	Umubare w'ababyariye mu ngo	
20	Umubare w'ababyariye ku kigo nderabuzima	
21	Umubare w'abaherekejwe n'umujyanama w'ubuzima kujya kubyarira ku kigo nderabuzima	
22	Umubare w'ababyeyi/impinja baherekejwe kwa muganga nyuma yo kubyara mu gihe kitarenze amasaha 24	
23	Umubare w'abagore batwite boherejwe ku kigo nderabuzima muri gahunda ya PMTCT	
24	Umubare w'abana bari munsi y'amezi 2 boherejwe ku kigo nderabuzima kubera ikimenyetso mpuruza	

	C2 Gahunda y'imirire ishingiye ku baturage kandi bayigizemo uruhare	Umubare
25	Umubare w'ababyeyi bonsa bafite umuzenguruko w'ikizigira uri munsi ya cm 21	
26	Umubare w'abagore batwite bafite umuzenguruko w'ikizigira uri munsi ya cm 21	

	D. Kuboneza urubyaro	Gore	Gabo
27	Umubare w'abinjiye muri gahunda yo kuboneza urubyaro muri uku kwezi		
28	Umubare w'abahagaritse gahunda yo kuboneza urubyaro ku mudugudu		
29	Umubare w'abari muri gahunda yo kuboneza urubyaro ku mudugudu		

	E. Gukurikirana imfu z'ababyeyi n'abana	Kwa muganga	Mu rugo
30	Umubare w'abagore bapfuye batwite,babyara cyangwa se mu minsi 42 nyuma yo kubyara		
31	Umubare w'abana bafite munsi y'umwaka 1 bapfuye (Bose)		
32	Umubare w'abana bafite munsi y'imyaka itanu bapfuye (Bose)		
33	Umubare w'impinja zapfuye zitararenza iminsi 28 zivutse		

	F. Gukurikirana uburwayi	Umubare
34	Umubare w'abakekwaho igituntu boherejwe ku kigo nderabuzima	
35	Umubare w'abarwaye igituntu bahabwa imiti mu rugo	
36	Umubare w'abakekwaho imbasa boherejwe ku kigo nderabuzima	
37	Umubare w'abakekwaho iseru boherejwe ku kigo nderabuzima	
38	Umubare w'aboherejwe ku kigo nderabuzima kwipimisha ubwandu bwa Sida	

	G. Gusurwa no kwitabira inama/IEC (supervision offiel)	Umubare
39	Inshuro yasuwe n'umukozi wo ku kigo nderabuzima	
40	Inshuro yasuwe n'umujyanama w'umuhuzabikorwa ku rwego rw'akagari.	
41	Umubare w'inama/zirimo inyigisho yagiranye n'abaturage	

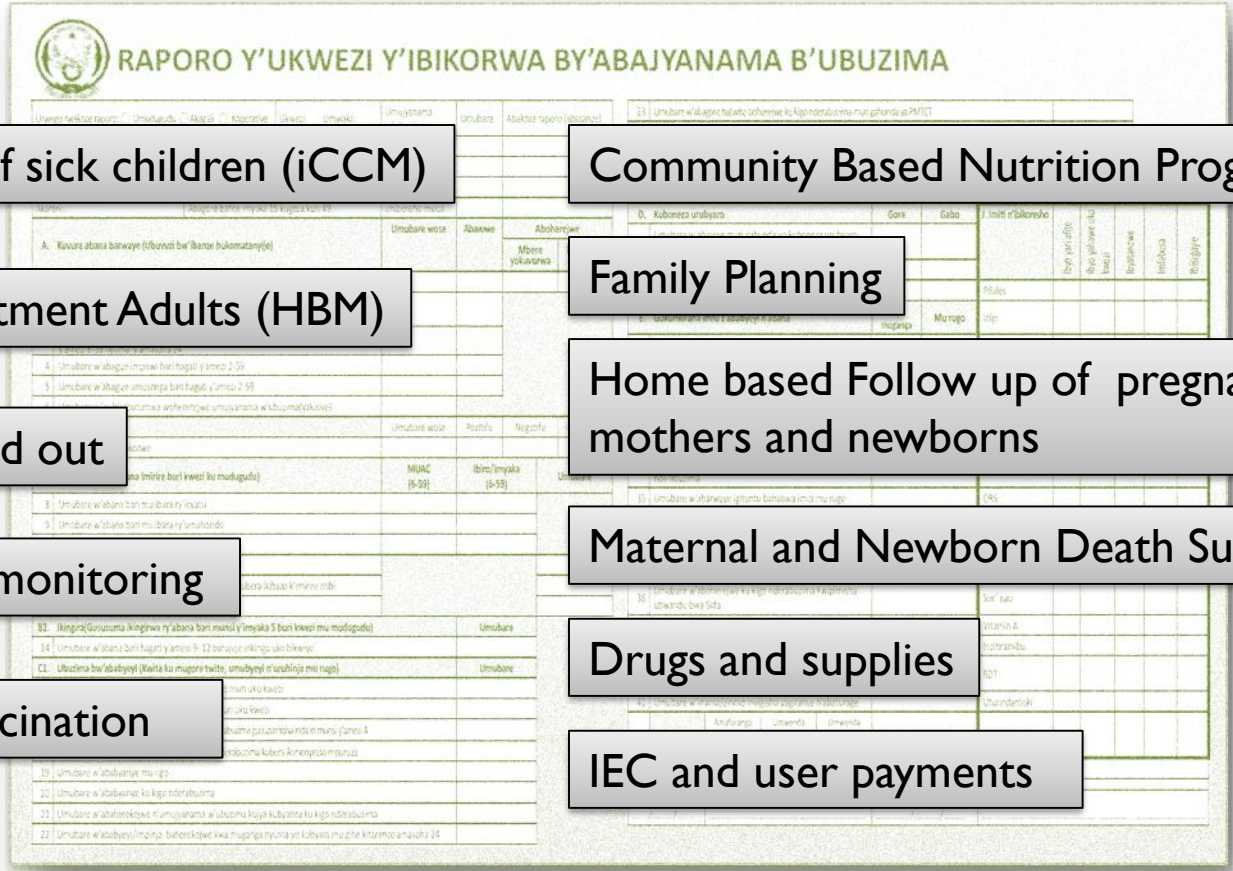
H.	Kwishyura (Rwf)	Amafaranga yakiriwe muri uku kwezi	Umwenda wagiwemo uku kwezi	Umwenda wishyuwe muri uku kwezi	Umwenda usigaye kwishyurwa

J. Imiti n'ibikoresho	Ibyo yari afite	Ibyo yahawe uko kwezi	Ibyatanzwe	Imitabusa	Ibisigaye
Pilules					
Inigi					
Udukingirizo					
Depo-provera (DMPA)					
Misoprostol					
Primo Tuku					
Primo Hondo					
Zinc					
ORS					
Amoxicillin					
Mebendazole					
Sur' eau					
Vitamin A					
Inzitiramibu					
RDT					
Uturindantoki					
Imiti y'igituntu					

Itariki yujurijweho: ...../...../..... Amazina n'umukono: ..... Itariki yakiriweho ..... Amazina n'umukono .....

CHW monthly report form

Services areas tracked

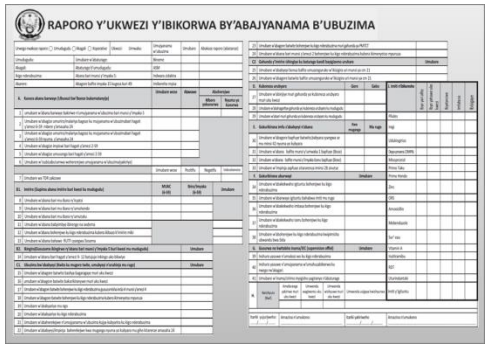


- Treatment of sick children (iCCM)
- Malaria Treatment Adults (HBM)
- RDTs carried out
- Nutritional monitoring
- Under-5 vaccination
- Community Based Nutrition Program (CBNP)
- Family Planning
- Home based Follow up of pregnant women, mothers and newborns
- Maternal and Newborn Death Surveillance
- Drugs and supplies
- IEC and user payments

CHW monthly report form

The SISCOM monthly summary form

Paper based tool


RAPORO Y'UKWEZI Y'IBIKORWA BY'ABAJYANAMA B'UBUZIMA

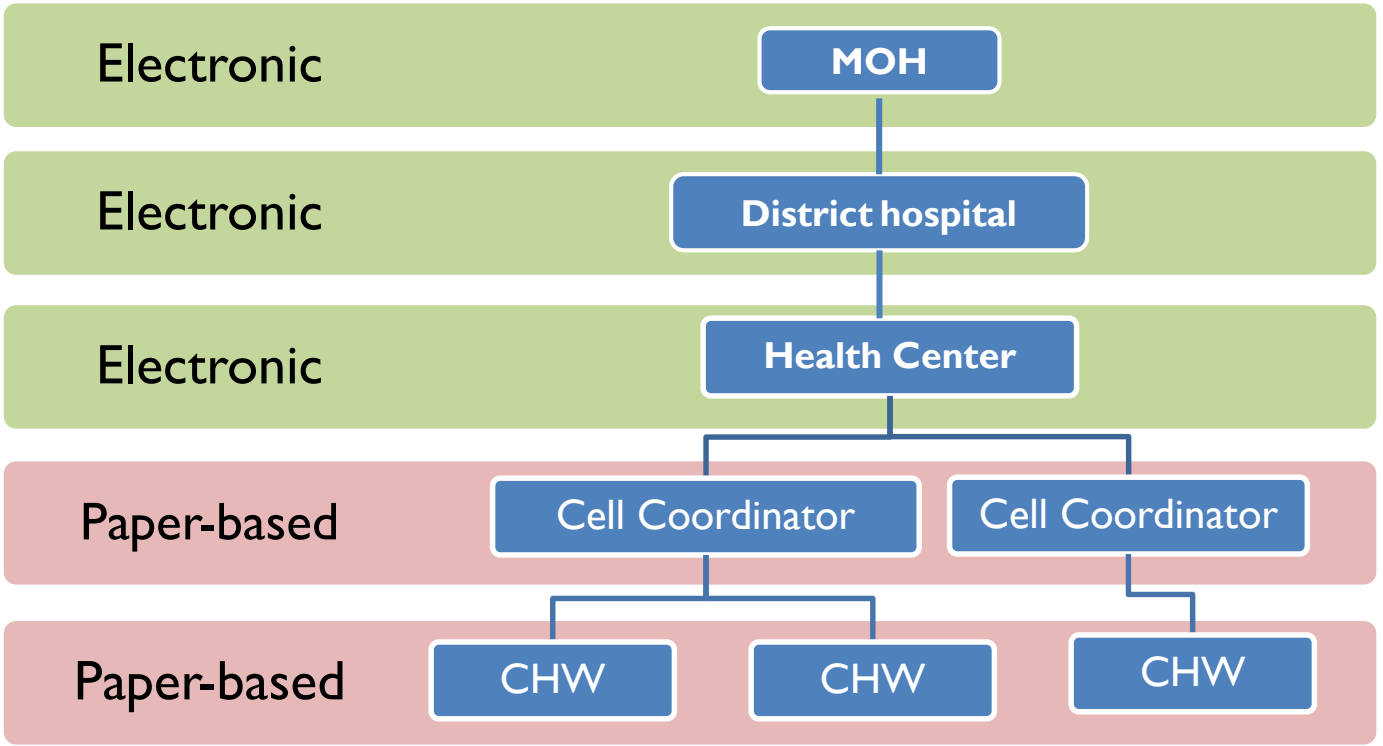
Paper based reporting tools from village level to HC/Data manager

The second aggregation that generate the monthly report paper based is done at CHWs cooperative then the summary form is sent to HC data manager who carry data entry into DHIS-2/SISCOM

The first aggregation is done at cell level by cell coordinator who compile all reports from village then send the summary form to CHWs cooperative in catchment area of HC

Each CHW report monthly activity by recounting data from national source document (registers) used for documentation of services offered then the 3 CHWs at village level refills the summary form and send the report to cell coordinator

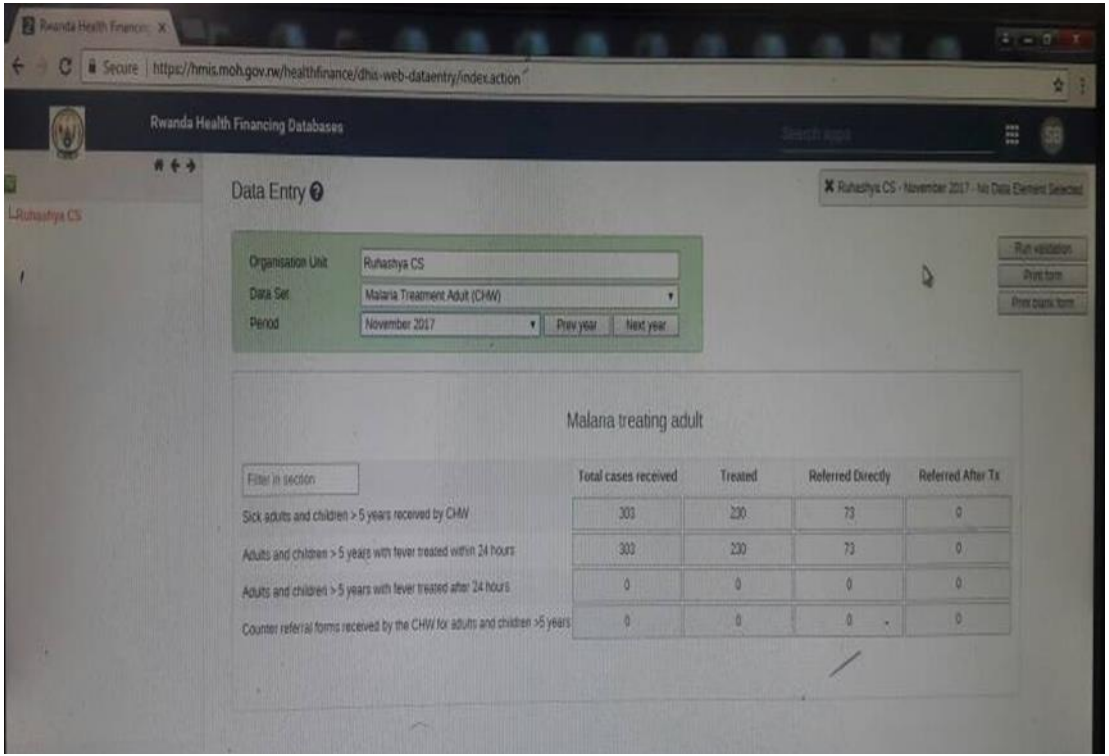
Data flow system



Electronic system from the Health Center→Up

Equipment available at Health Facilities

The coordinator of CHW cooperative submit the monthly summary form to HC data manager who enters aggregated data into DHIS-2/SISCOM



The data entry screen of DHIS-2-HMIS/SISCOM

Rapid SMS

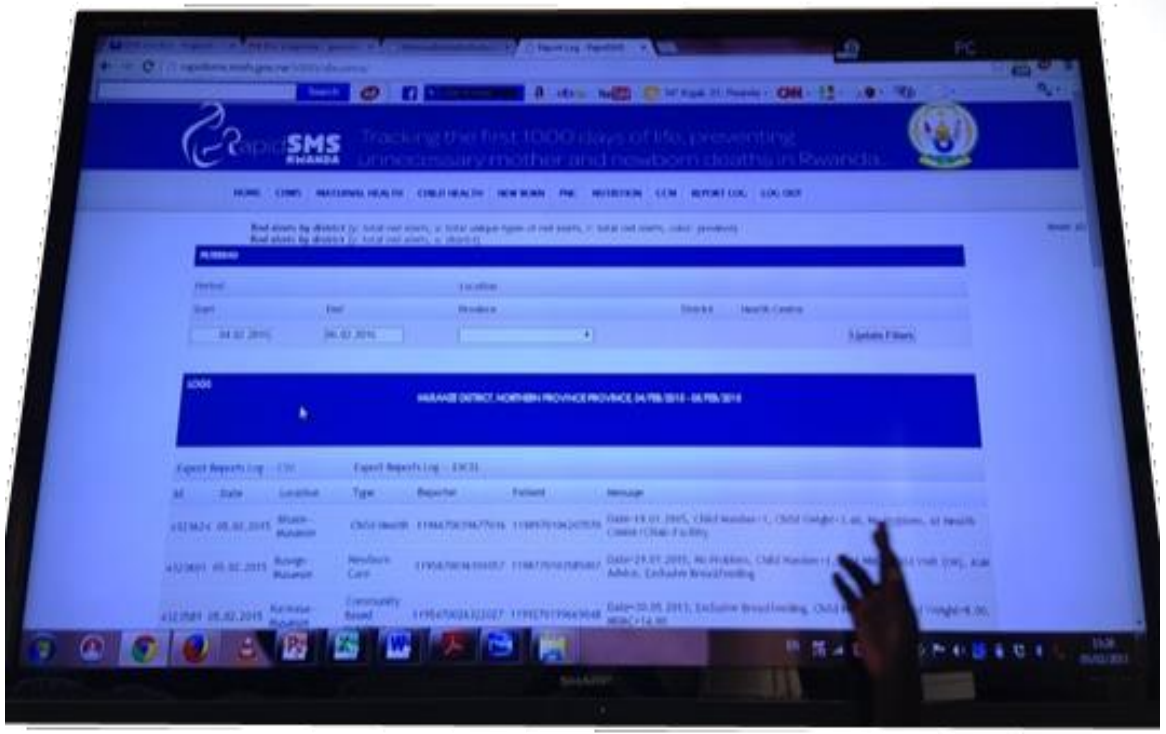
CHW sending Rapid-SMS from his cellphone

Text-messaging tool used by CHW to track pregnant women and track the first 1000 days of life up to 5 years

Examples of information submitted:

- Woman's pregnancy and delivery
- Children under five identified with danger sign
- Tracking referrals (track alert sent and responses)
- Maternal and under five deaths

Data use

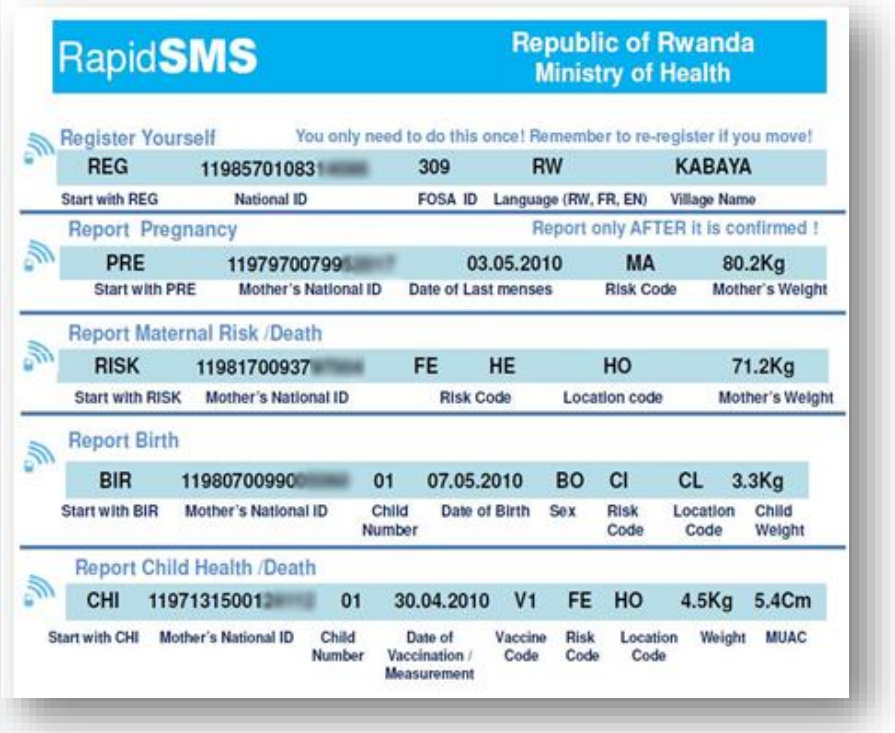


RapidSMS data accessed at District Hospital

Summary of Community Data Use

System	Main Clients	Use
Rapid SMS	Primary level health facilities	Respond to maternal and child health emergencies
HMIS/SISCOM	CHW	Drug and supply management
	Primary level health facilities	Support community health workers within the catchment area
	Local administration: village, cell, sector, district	CHWs data is used for planning, setting and monitoring health related performance contracts
	Central: RBC/MOH and development partners	Informed policies, establishment of strategies, supply chain management, research, PBF

Use of Rapid SMS



Instructions for sending Rapid-SMS

- The system sends automated, actionable responses to CHWs when reported events indicate risk, or when antenatal care visits or deliveries are due
- Health facilities are notified to prepare for an anticipated delivery and/or to provide ambulance transport

Feedback Mechanism and Data Quality

National

- Quarterly community sub-technical working group meeting
- Quarterly and annual analysis of community data
- Biannual integrated supervision including community DQA

DH

- Quarterly analysis of CH data to inform decision by Management Team
- Biannual DQA of community data (quality control paper vs. electronic)

HC

- Monthly meeting at HC level to review reported data and link data to quality of service provision
- Mentorship including community DQA

Community

- Monthly CHWs meeting with cell coordinator to review reported data

Community Performance-Based Financing

Incentives to cooperatives in exchange of their performance based on two categories of indicators:

Pay-for-reporting:

Quarterly payment based on the timely submission of quality data reports related to 29 indicators.

Conditions:

1. **Report Quality:** Timeliness, Accuracy and Completeness of Report
2. **Cooperative Quality:** Legal status, Presence of President, Bank account, …

Pay-for-indicators:

Additional payment for improvement in five targeted areas (Nutrition, ANC, SBA, FP referrals and FP new users LTPM)

The average quarterly payment is $900 per cooperative for a 100% quality score

Successes and Challenges

Examples of Successes

- All CHWs are using standard data collection tools (registers, flipcharts and summary forms)
- All CHWs are equipped with a mobile phone regularly loaded with airtime for Rapid SMS, communication with HC and other CHWs
- The DHIS-2/SISCOM functional countrywide
- A strong feedback and coordination mechanism is in place and functional
- The PBF include the CHW reporting rate

Remaining challenges

- Turnover of trained CHWs
- High workload for CHWs
- Inadequate response rate on alerts sent through Rapid SMS
- Disaggregation of data (eg: FP not disaggregated by method)
- Disparities in CHWs activity as per instructions for Rapid SMS
- Sub-optimal use of data

Thank you

For more information, please visit

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