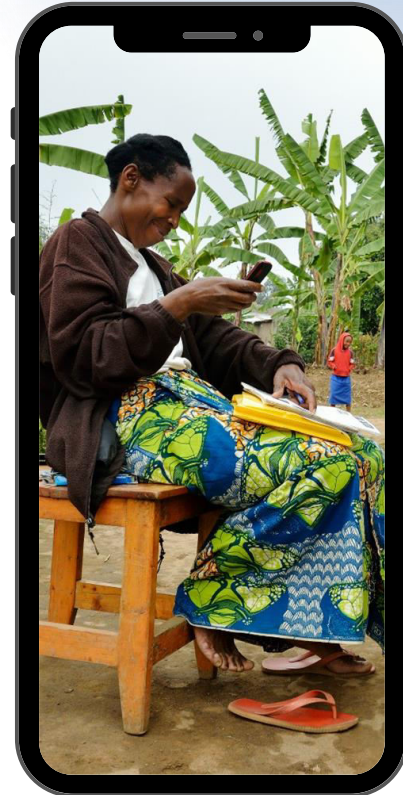Republic of Rwanda
Ministry of Health

Community EMR system

Implementation Progress September 2024

Presented by:

Digitization Directorate

Outline

- System overview
- Sneak peek into cEMR
- Pilot Summary
- Challenges Faced
- Key Lessons Learned
- Next steps and Scale-Up Plan

CHWs in cEMR training session
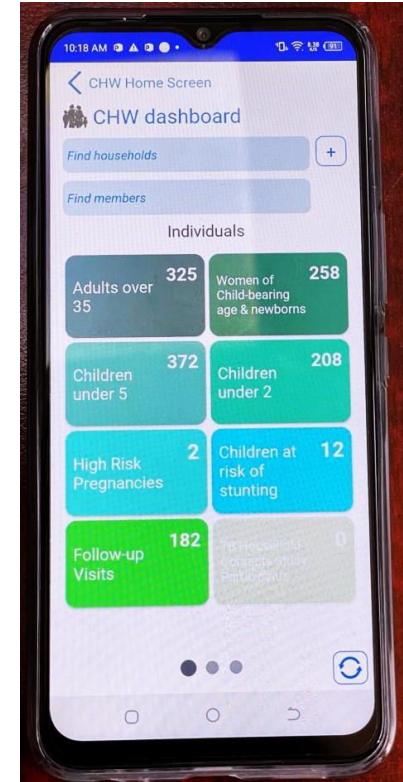
cEMR System Overview

- **System Background**
  - The cEMR system is a part of the Ministry of Health's priority initiative to digitize primary healthcare in Rwanda.
  - A Clinical Decision Support tool (mobile application) designed for roughly 60,000 CHWs in Rwanda with a focus on enhancing data accuracy, service delivery and evidence-based decision making
- **Key Modules:**
  - Household Registration, ICCM including Malaria Case Management, Growth Monitoring, Community Based Maternal and Newborn Health, NCD Screening, Stock Management and National Campaigns such as IRS, MDA, and LLINs bed net distribution.
- **Development Process:**
  - Collaborative development process involving MOH, RBC programs, and Partners
  - User-centric design with interactive prototyping (Figma)
  - User Acceptance Testing

Sneak Peek into cEMR system

The Community EMR system allows CHWs to:

- add new households
- add new members to households
- digitally register household information in their village, including:
  - Geo-location
  - Phone number
  - Structure and room information for spray campaigns
  - Hygiene and Sanitation information
  - Bednet and sleeping space information for bed net distribution campaigns

Members   Location   Structures   Sleep Spaces

The cEMR's integrated with Rwanda's **Social Registry**

The Community EMR guides and supports CHWs as they:

- assess community members for:
  - Malaria
  - Pneumonia
  - Diarrhoea
- treat simple cases in the community
- refer severe cases to a health center
- deliver prevention and awareness messages to change behaviours

***Th*e system also enables:**

- Continuous patient monitoring and follow-up, allowing CHWs to assess treatment effectiveness and escalate cases to higher levels (Health centers) as needed

The cEMR's integrated with Rwanda's **Shared Health Record**

ICCM

Aurore Uwimana

Malaria Treatment

Arthemether (20mg) + Lumefantrine (120mg)

Dispense 6 × 4-tablet blister packs

Patient takes
- X tablets
- twice a day
- for 3 days

	Dose	When
Tue, May 2	1	9:30 AM
	2	7:30 PM
Wed, May 3	3	9:30 AM
	4	9:30 PM
Thu, May 4	5	9:30 AM
	6	9:30 PM

Continue

Step 2: Danger Signs

Diarrhoea Assessment

⚠️ Aurore should be referred to a health center immediately

Refer to:

Centre de Santé Remera

Press **Send** to alert the health center of the situation via SMS message.

Send

Message has been sent

Done

Pilot Summary

With support from the USAID Tubeho Project implemented by Jhpiego, SFH and FIND; the MOH and RBC conducted the pilot phase to 600 CHWs across 5 districts under 36 selected health centers. The aim was to assess system functionality, gather user feedback, and inform nationwide scale-up.
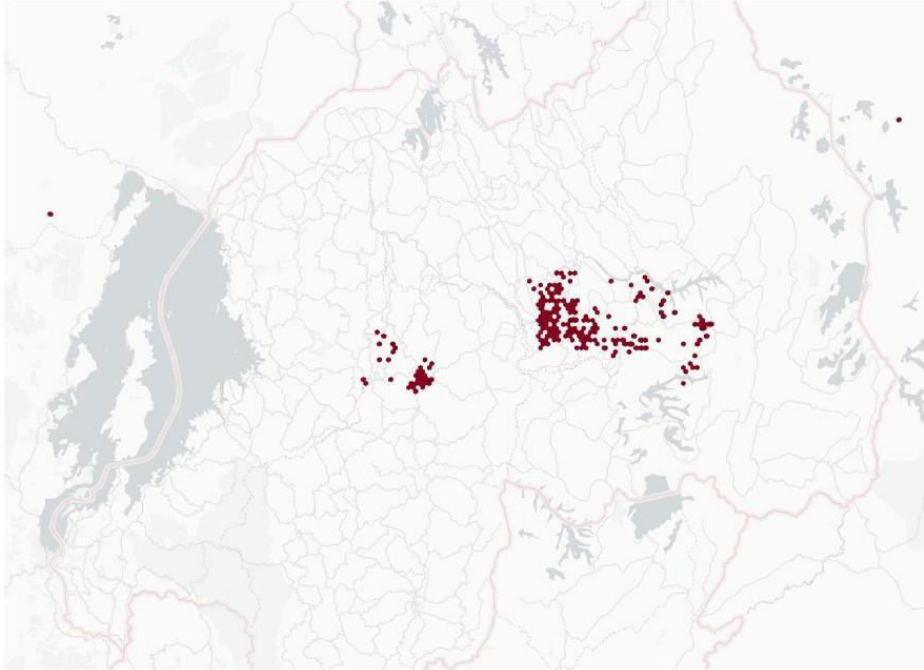
Key Activities include:

- Trained 60 master trainers from the MOH, RBC, and SFH on eCHIS and 144 health center staff

- 600 CHWs have been equipped with smartphones, internet connectivity and comprehensive training on cEMR utilization

- Supported CHWs with ongoing supervision, mentorship and technical assistance

ToT session for 60 master trainers

Pilot Coverage

36 sectors under 5 districts where was piloted. (Rwamagana, Muhanga, Kicukiro, Nyarugenge and Gasabo)

Snapshot of Pilot Progress in Numbers

- 75, 594 Enrolled Households

- 4,039 General Assessments performed

- 2,087 Malaria Assessments performed (559 simple cases treated)

- 416 Pneumonia Assessments performed (278 simple cases treated)

- 179 Diarrhea Assessments performed (131 simple cases treated)

Challenges Faced

- **Human Capacity & Training**
  - Limited digital literacy among CHWs required extensive training periods

  - Resource-intensive cascaded training model, especially in remote areas

  - High cost for supportive supervisions
- **Infrastructure & Technical Barriers:**

  - Unstable internet connectivity in some areas (low network coverage) hindered real-time data transmission.

  - **Device management issues:** damaged, stolen, or deleted the system on smartphones

Key Lessons Learnt

- **Training and Support**
  - Hands-on, continuous training is crucial for sustained system adoption
  - Need for decentralized support to provide timely on-site assistance (engaging health centers and digital ambassadors
- **System Design**
  - Importance of offline functionality to maintain data capture in low- connectivity areas

- Technical Review & Validation Meetings, Supportive supervisions and on-the-job training
- High cost of implementation (especially cascaded trainings of CHWs, gadgets and internet connectivity) requiring stakeholder engagement, partnerships & and collaboration

Next Steps

- Deploy cEMR to 938 CHWs in Nyabihu district
    - Training of trainers for 16 HCs has been completed
    - Cascaded training of 938 CHWs' scheduled to start on 30th September

- Device/smartphones acquisition for all CHWs

- Rollout cEMR system to all CHWs

Q&A Session

Murakoze

Scale-Up Plan

Province	District	Hospital Cactment Area	Total # of HCs	Total # of CHWs	Tentative Start Date
Kigali City	Nyarugenge	Nyarugenge	10	1135	November 2024
		Muhima			
	kicukiro	Masaka	9	1332	December 2024
	Gasabo	Kibagabaga	15	2004	December 2024
		Kacyiru			
East	Rwamagana	Rwamagana	16	1896	October 2024
North	Rulindo	Rutongo	22	1976	December 2024
South	Muhanga	Kabgayi	16	1403	November 2024
		Nyabikenke			
	Nyanza	Nyanza	17	1639	November 2024
West	Nyabihu	Shyira	16	1876	September 2024
	8	**11**	**121**	**13261**	
	DISTRICTS	HOSPITALS	HEALTH CENTERS	CHWs	