

# Smart Discharges & eCHIS

## Community Linkage to Care in Buikwe District

Ms. Sheila Karungi  
Malaria Consortium



THE REPUBLIC OF UGANDA  
MINISTRY OF HEALTH



# Overview

## Challenge:

- VHTs struggled with paper reports, inaccuracies, and fragmented digital tools.
- Low VHT reporting at national level, including Buikwe district.
- Non-user friendly community data.
- Costly mentorship/supervision mechanisms.
- Poor iCCM commodities consumption monitoring and quantification.

## Solution:

- Implement a national electronic Community Health Information System (eCHIS) for better coordination and interoperability with health systems.

# Electronic Community Health Information System (eCHIS)

A mobile platform

## At the community level

- Supports guideline-based quality of care provision.
- Aids in managing health extension programs.
- Collects and utilizes demographic data.
- Gathers health services delivery information.
- Tracks service utilization.
- Reports into HMIS in nearly real-time

# About eCHIS

- Owned by the MOH. The one community health digital solution endorsed by the MOH.
- Powered by open-source technologies: Community Health Toolkit (CHT) and OpenSRP.
  - Integrate data into a unified management and visualization platform.
- Supports VHTs and Health Assistants in providing various healthcare services.
  - Antenatal care, postnatal care, nutrition, immunization, iCCM, malaria, HIV, TB, stock monitoring workflows and GPS location.
- Other features:
  - DHIS2 integration, translated into Luganda, data quality tool.

# eCHIS & Smart Discharges implementation in Buikwe District - 2021



## eCHIS Implementation

- VHTs trained & equipped
- District-led supervision supported
- Translation
- Research

## eCHIS Technology

- Technical service design
- Development of tools and workflows

## Smart Discharges Implementation

- Health worker & VHT training on discharge care and QI
- Support supervision

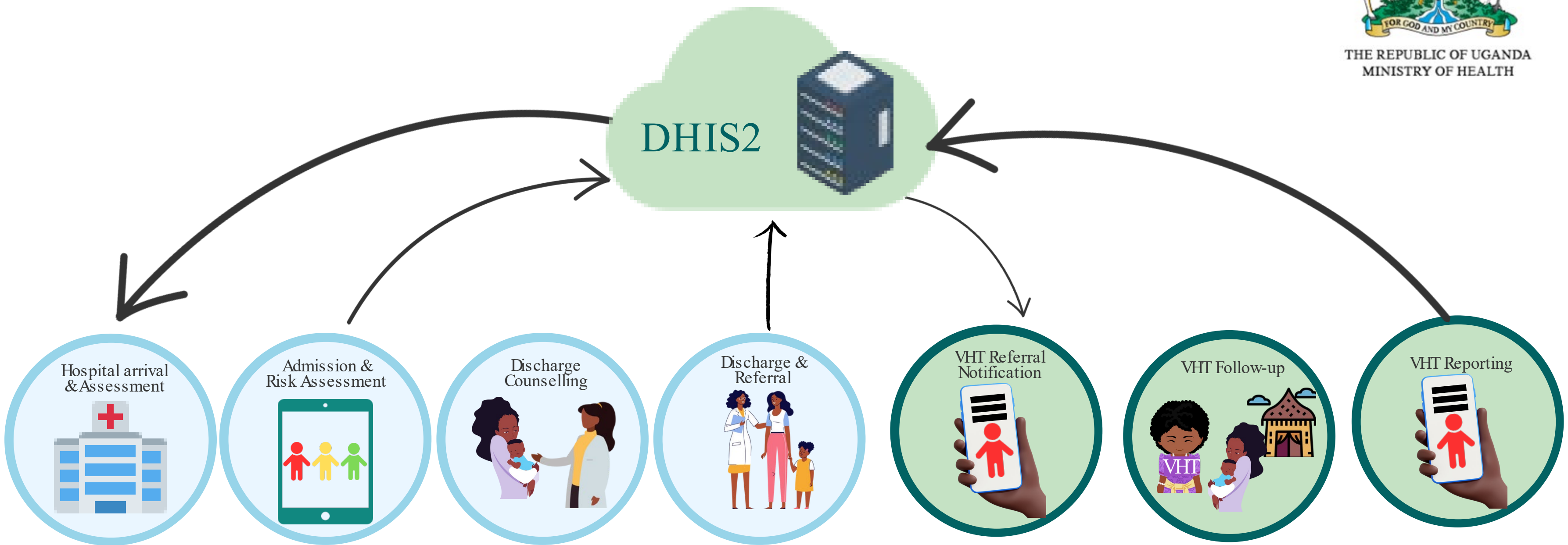
## Smart Discharges Technology

- Integrate facility-based risk-prediction & follow-up referral scheduling with eCHIS
- Research



# Concept

Interoperability  
2-way reporting between  
facility and community



**Smart Discharges**  
Pediatric Risk Assessment App (PARA)

**eCHIS**





# Smart Discharges (PARA)

# eCHIS

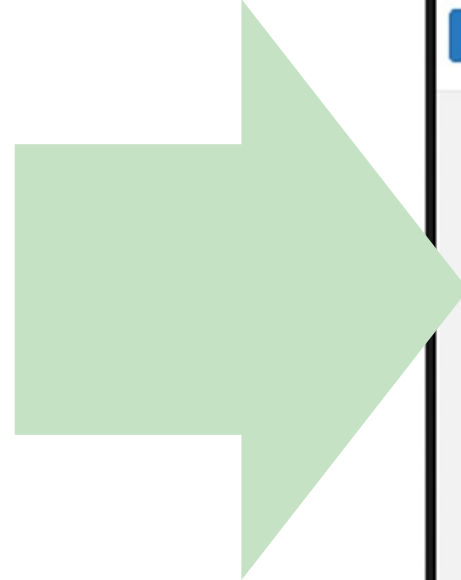
Back Risk Finish

Post-Discharge Risk of Mortality

**High**

Approx. 10%

Follow-ups



Smart Discharge Followup

Smart Discharge Followup

Due Date Due today  
Fri, Mar 18th, 2022

Assess Child Mark as Complete

Smart Discharge Notification

FROM THE SMART DISCHARGES PROGRAM

A child from your area was discharged today. Please complete 3 follow-up visit(s) to assess recovery.

Child: Ann Doe

Please find this child in the list below. If they do not appear, please create a New Person, then return and complete this form. \*

This field is required

CHILD INFO

Ann Doe, Girl, 2.4 months old

DOB: January 1, 2022

Location: Test Subvillage

Head of Household: Jane Doe

Phone: 0123456789

Discharging Facility: TEST Facility

Smart Discharge Follow-up Results

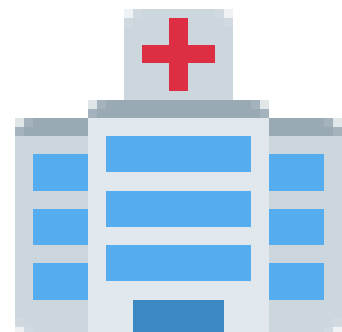
Please confirm your visit with Ann Doe

Did you follow-up with this patient? \*

Yes

No

Submit



# Key Achievements

## Training:

36 Health workers

344 VHTs

19 VHT trainers

## Implementation:

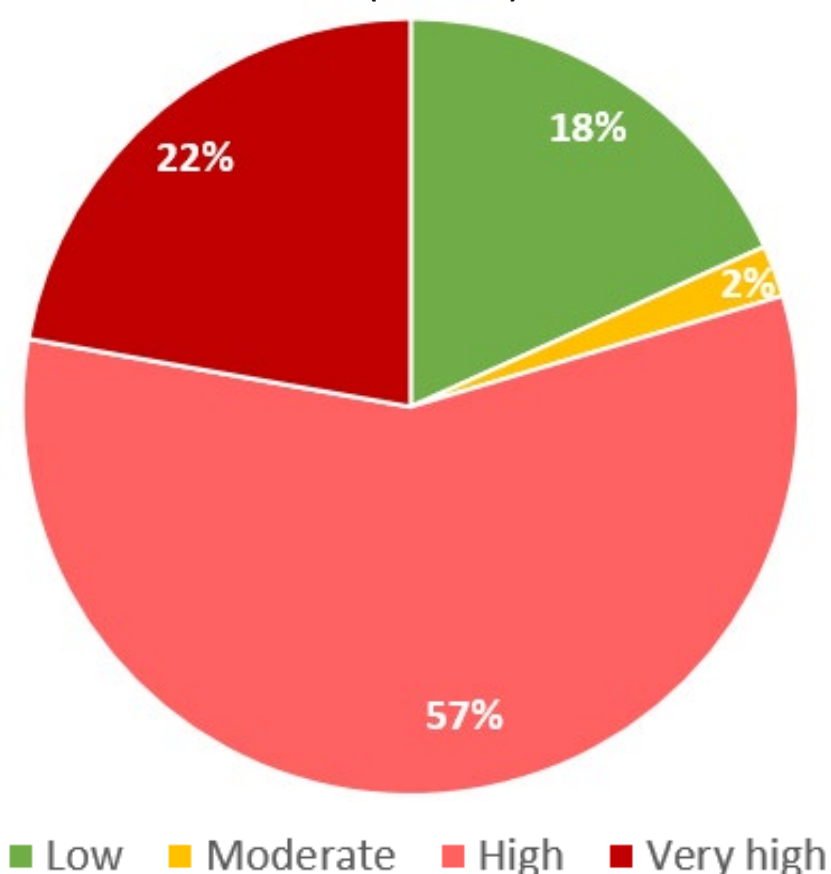
3 facilities

- Kawolo Hospital, St. Charles Lwanga Buikwe Hospital, St. Francis Nyenga Hospital

7 sub-counties



Risk stratification in Buikwe  
(n=900)



## Improved Care

900 children assessed for risk of post-discharge mortality and morbidity

**736 (82%)** children deemed at-risk and received a post-discharge referral to a VHT.

## User Ability Testing

- UAT completed with workers
- App issues identified were addressed
  - Remaining issues outside of the scope of the project (e.g. health worker shortages)

## Partnership

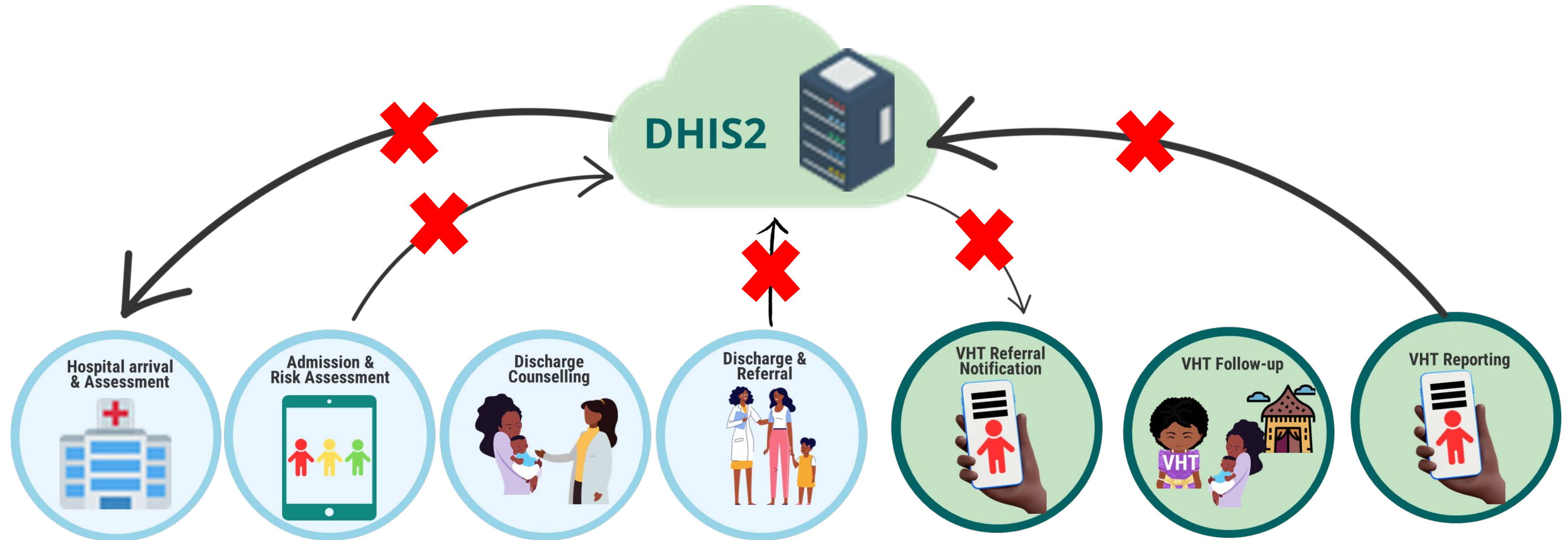
Strong partnerships developed between MOH, Malaria Consortium, Medic, DHT, facilities, Medic, WALIMU, UBC,



# Challenges

## MOH APPROVAL PENDING

- System fully tested
- Need to move from “demo” to “production”



**Smart Discharges**

Pediatric Risk Assessment App (PARA)

**eCHIS**

# Temporary Solution

- VHT notified of follow-up referrals via SMS
  - No ability for 2-way reporting between the facility and VHT
  - No national level **automated reporting** to DHIS2 of facility patient data in Buikwe
  - No data storage on MOH servers
  - Data on Risk prediction, discharge diagnosis, mortality still being sent to Smart Discharges serves.

# Barriers to Sustainability

- Approvals pending for eCHS-Smart Discharges integration
- No current integration of post-discharge care into iCCM guidelines
- Patient centered facility to community transitions
- Based on individualized risk of post-discharge vulnerability