Smart Discharges Implementation in Gulu District

**Dr. Kenneth Caana
District Health Officer
Gulu**

A Quality Improvement Intervention

Smart Discharges QI Overview

Goal: To improve patient outcomes for children recovering from severe infection though implementation of the Smart Discharges Quality Improvement (QI) intervention in Gulu District.

Target: Health workers, caregivers, and village health teams.

Approach:
- Evaluate impact of QI intervention on discharge practices
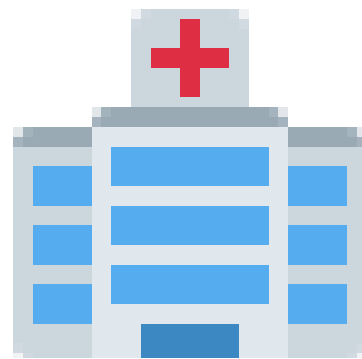- Assess effectiveness of community based referral system

Timeline: Dec 2020 - Present

Gulu District Implementation Sites
(pre- Gulu District & Gulu City divide)

2 Hospitals

9 Health Centres

- Angaya HCIII
- Awach HCIV
- Aywee HCIII
- Bardege HCIII
- Cwero HCIII
- Gulu Regional Referral Hospital
- Labworomor HCIII
- Layibi Techo HCIII
- Pabwo HCIII
- Patiko HCIII
- St Marys Lacor Hospital

QI Approach

- Health worker and VHT **training**

- **Facility QI assessment** at baseline, 4-months and 8-months post-training

- **QI planning & reporting**

- Smart Discharges **risk assessment** at time of admission using tablets

- **Community linkage** to care via SMS

  - Facilities notify VHTs of follow-up referral via SMS

  - Follow up visits by VHTs to assess a child's recovery

Baseline Facility QI Assessment
Key Gaps

No facilities had a policy or guide for discharging patients.

- Assessment of child's vulnerability was based on providers' opinions.

- Few facilities began discharge planning at admission.

No post-discharge community linkage to care.

Key **discharge counselling topics** not routinely provided.
e.g. immunization, medication side effects, and recovery.

Key Program Achievements

Individuals Trained

107 Health Workers

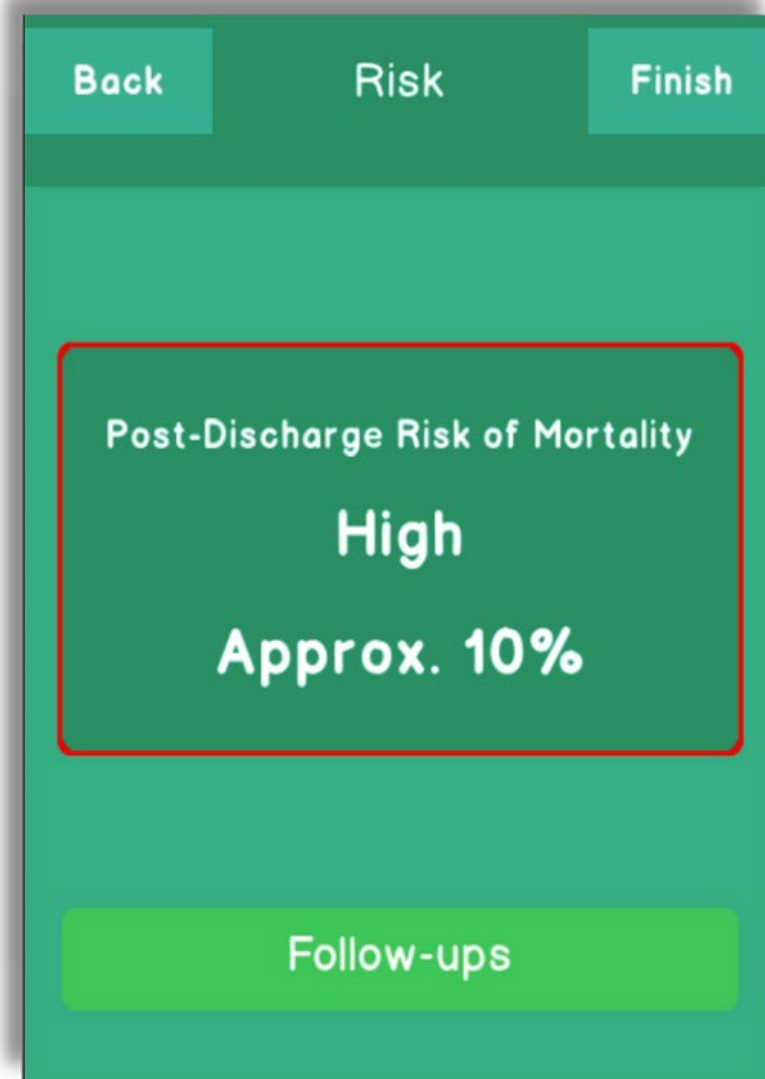**23 Health Assistants**

326 VHTs

82% of health workers had improved knowledge and awareness of discharge care post-training

Smart Discharges Gulu District Model

**Risk Assessment at admission
Follow-up referral at discharge**

VHT receives follow-up schedule notification and reminders

VHT follows up with vulnerable child in the community

Smart Discharges PARA App

SMS Message

Individualized follow-up schedule

Key Program Achievements

Health worker assessed 3,717 children for post-discharge vulnerability upon hospital admission among 11 health facilities

1,821 (49%) <u>at-risk</u> children received post-discharge referrals to either their local health centre or a VHT

Risk categorization among 3,717 children assessed

10.8%

32.8%

51.0%

5.4%

- low
- moderate
- high
- very high
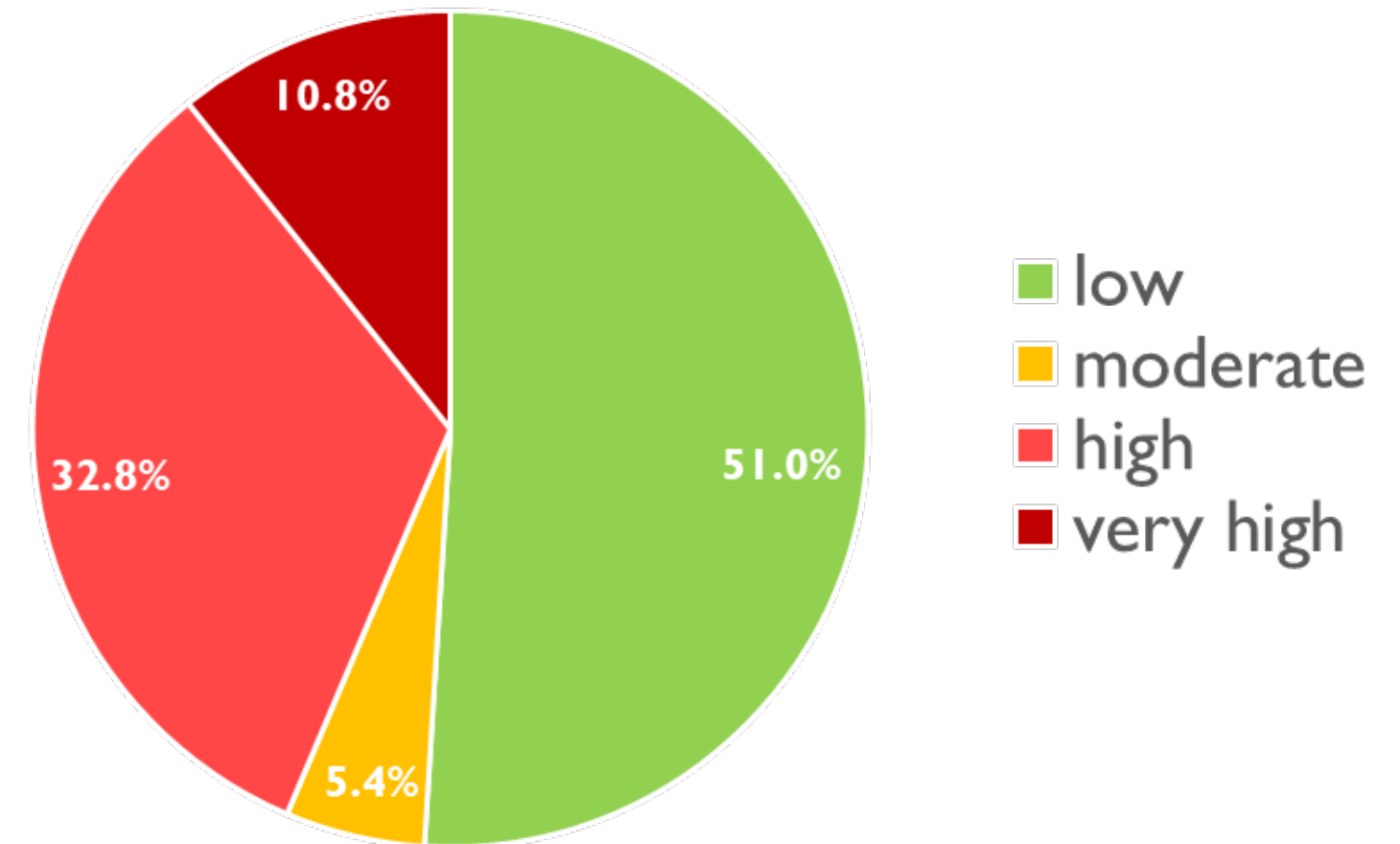
QI Reports

Facility-based QI reports received at baseline, 4-months, and 8-months post-training to notify care teams of the **impact of their work.**

QI plan co-developed at baseline and reviewed at each time point.

Steps in the Discharge Process Assessment Summary (n=6)

QI Status	Pre-intervention	4-month	8-month
Good	3	6	6
To be improved	3	0	0

This represents a +50% change from pre-intervention.

Item: Steps in the Discharge Process	Pre-intervention	4-month	8-month
Risk assessment for post-discharge vulnerability at admission	❗	✅	✅
Patient/caretaker consultation at admission	✅	✅	✅
Discharge planning	✅	✅	✅
Discharge order by an in charge	❗	✅	✅
Patient/Caretaker discharge education	✅	✅	✅
Follow-up referral	❗	✅	✅

✅ = Good. Item was checked as a step in the discharge process.
❗ = Inadequate. Item was not checked as a step in the discharge process and needs to be improved at this facility.
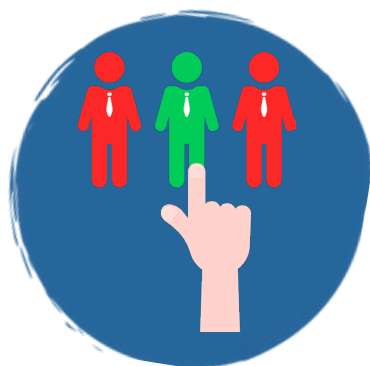NA = Not applicable.
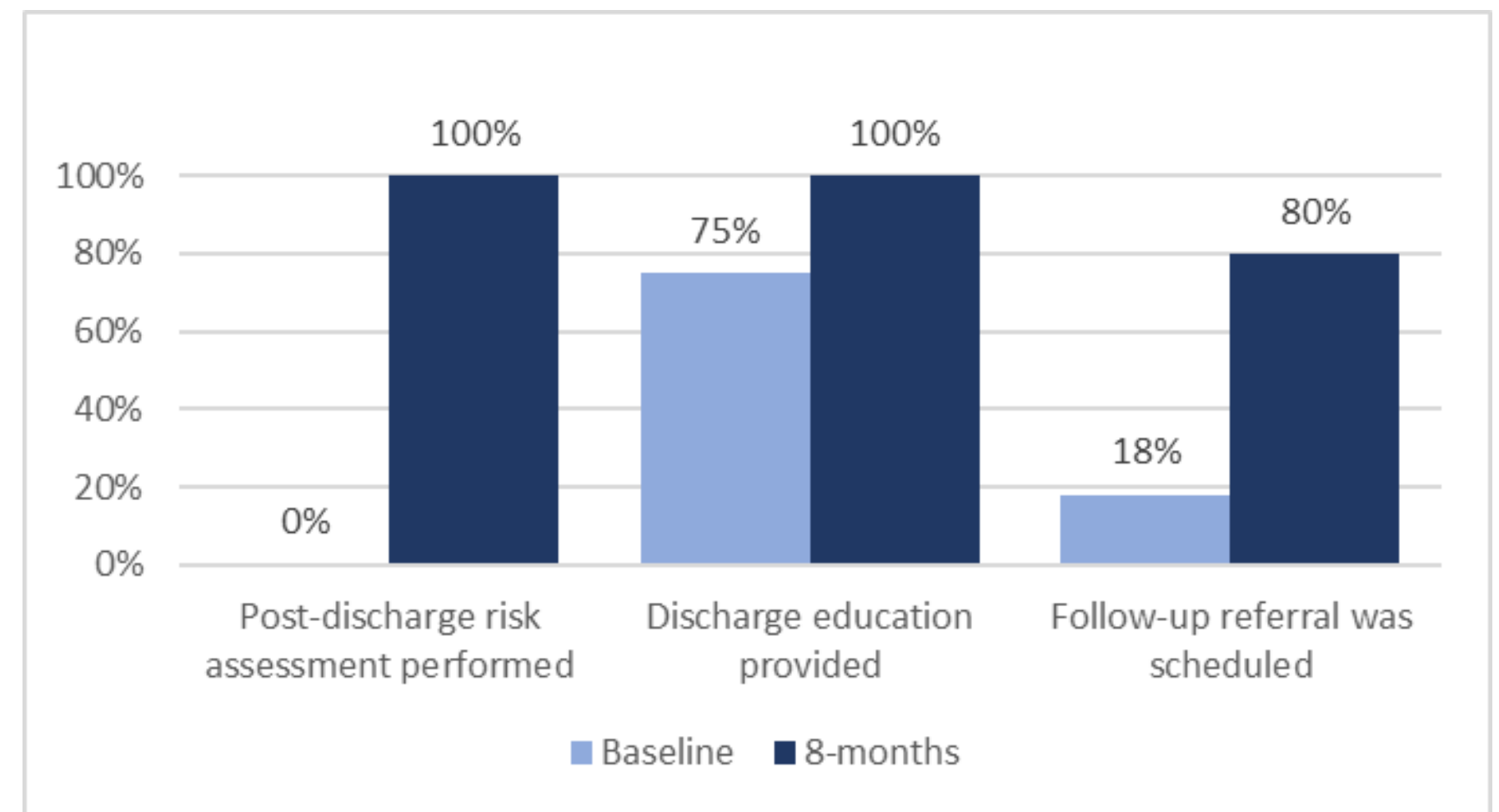
Key Discharge Practice Improvements

Major improvements in discharge practices at 8-months post training.

Adopted as **routine discharge practices:**

- **Risk assessment**
- **Discharge counselling**
- **Follow-up referral scheduling**
- **Community follow-up with VHTs**

Observed discharge practice improvements at 8-month follow-up
n=55 observations; 5 observation per each of the 11 implementation facilities

Bar chart data:
- Post-discharge risk assessment performed: Baseline 0%, 8-months 100%
- Discharge education provided: Baseline 75%, 8-months 100%
- Follow-up referral was scheduled: Baseline 18%, 8-months 80%

Legend: Baseline, 8-months

Key Discharge Practice Improvements

Comprehensive discharge counselling

- **Major improvements** in discharge <u>care topics</u> provided to caregivers
  - Immunization
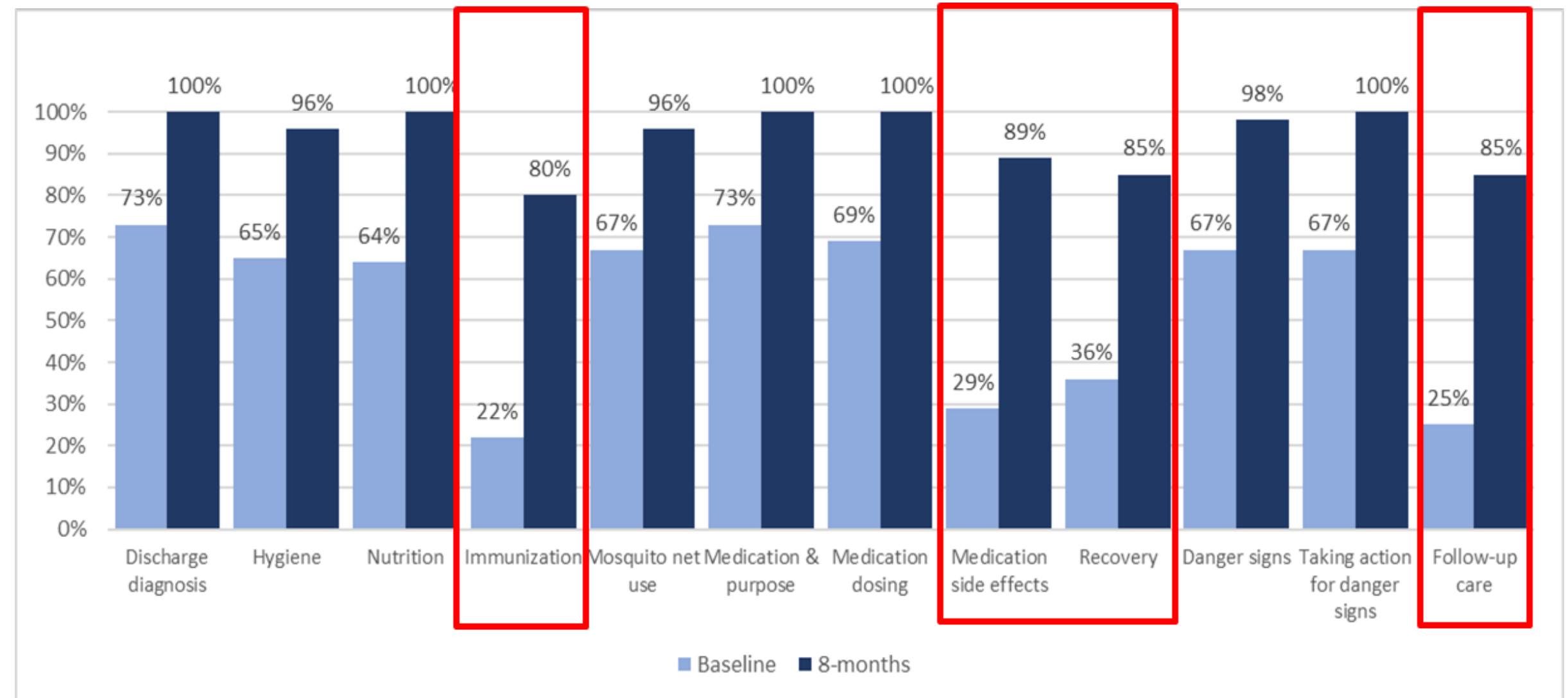 - Medication side effects
  - Recovery
  - Follow-up care

Discharge Counselling Topics Provided at baseline and 8-months

n=55 observations; 5 observation per each of the 11 implementation facilities

Bar chart showing Baseline vs 8-months percentages:
- Discharge diagnosis: 73% / 100%
- Hygiene: 65% / 96%
- Nutrition: 64% / 100%
- Immunization: 22% / 80%
- Mosquito net use: 67% / 96%
- Medication & purpose: 73% / 100%
- Medication dosing: 69% / 100%
- Medication side effects: 29% / 89%
- Recovery: 36% / 85%
- Danger signs: 67% / 98%
- Taking action for danger signs: 67% / 100%
- Follow-up care: 25% / 85%

Legend: ■ Baseline ■ 8-months

Caregiver Satisfaction

- Major improvements in **caregiver satisfaction** with discharge care received

- Caregivers grateful to be given the **opportunity to ask questions** during discharge counselling

Barriers to Sustainability

- Server space

  - Need to have clinical data hosted at the MOH servers

- Current/Future integration with EMR

  - Seamless care

- Registration of VHT phone numbers (for expansion)

- No 2-way communication

  - Feedback from community to facility

Smart Discharges Community Linkage to Care:
VHT experience providing post-discharge follow-up in Gulu District

Ms. Foska Aballo
VHT, Gulu District

Community Benefits of Smart Discharges

- Improved knowledge and simplified counselling by use of job aids

  - (e.g. Mother Counselling Card, Community Health Worker counselling Card)

- Bridged gap between health facilities and VHTs

- Build trust of VHTs by the community

- SMS notifications help VHTs to keep on track with patient follow-up schedules

- "Mothers are really appreciating Smart Discharges program for supporting VHTs in saving the lives of young children as they follow them up to home. This gives hope and love for the VHTs and family" – VHT

Summary of Barriers to Sustainability

- How do we secure MOH servers space for hosting clinical data?

- How do we obtain necessary approvals for eCHIS-Smart Discharges integration?

- How do we integrate comprehensive/patient-centred post-discharge care into iCCM guidelines?

- How do we ensure phone registration of VHTs

- How do we enable 2-way communication between facilities and VHTs

- How do we ensure that current and future EMRs in Uganda can easily incorporate clinical decision support systems developed by researchers?