

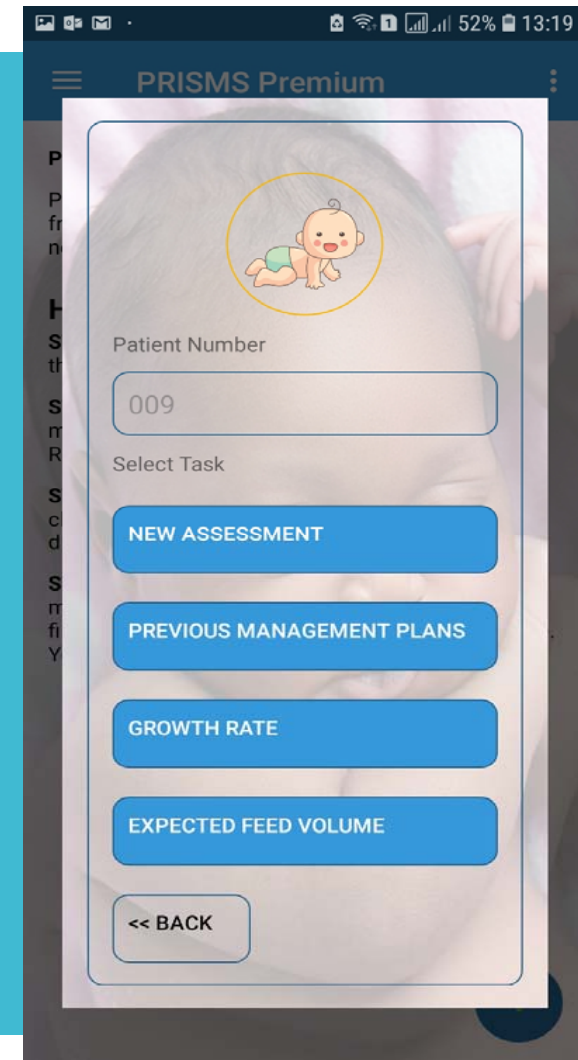
PRISMS

Protecting Remote Infant by SMS

(0-28days)

Saving Newborns Lives

Presentation By
Kusaasira Anitah
Research Assistant



Background

- Annually 2.6 million under fives deaths occur globally with the biggest portion in sub-Saharan Africa
- Neonatal deaths account for 96% of all under 5 deaths
- Up to 75% of these occur in the first week of life from preventable causes.


Why neonatal death is still high?

- Sick newborn care is considered highly specialized
- Most Frontline health workers feel inadequately trained to manage sick newborns

Therefore, there is need to empower frontline health workers to effectively manage sick newborns.

PRISMS

PRISMS Premium



Patient Number
009

Select Task

NEW ASSESSMENT

PREVIOUS MANAGEMENT PLANS

GROWTH RATE

EXPECTED FEED VOLUME

<< BACK

Fill In Your Assessment

Temperature (Celsius)

Color
--Please Select--

Heart Rate

Capillary Refill
--Please Select--

Degree of Dehydration
--Please Select--

Respiratory Rate (Per Minute)

Chest Indrawing
--Please Select--

Noisy Breathing
--Please Select--

Convulsions

Messages

Patient Number (PN) Entered: 009.
New PN: 2019/116.

Response: , Weight , Heartbeat, Respiration , [Capillary refill](#) ,
Jaundice :Normal.

Preterm baby: Highly vulnerable to infections.

High temperature: Undress baby, decrease environmental temperature and recheck in 1 hour.

Poor feeding - Weigh the baby, check blood glucose or [Give IV 10% dextrose](#), [NG \(Nasogastric\) tube feed](#) if unable to [Cup feed](#).

Pale: Do Hb estimation, consider blood transfusion.

Consider oral rehydration. Monitor intake & output.

Infection Signs: Consider complete blood count, blood cultures, [Give IM/IV antibiotics](#), consider lumbar puncture.

Research Objectives

Objective 1:

- To evaluate acceptability and feasibility of PRISMS among health workers (Paediatricians).

Objective 2:

- To conduct a pilot study to determine the feasibility and acceptability of using PRISMS in the delivery of newborn care at a rural health facility with no specialist paediatrician.

Methodology

- **Objective 1: (Testing PRISMS among Pediatricians – n=7)**
 - Formulated 12 simulated pediatric cases
 - Each pediatrician reviewed 6 randomly selected cases
 - Cases that were managed by health worker would also be managed by PRISMS for comparison of management
 - Questionnaires

Target: Qualitatively and quantitatively measure the acceptability and feasibility of using PRISMS in determining the management of patients for simulated paediatric cases.

Methodology continued..

- **Objective 2: (Testing PRISMS at a health facility with no specialist – Bwizibwera HCIV n=12)**
 - Did refresher training in newborn assessment
 - Training in using the technology – PRISMS
 - Cases under this objective were not simulated – enrolled real patients
 - Questionnaires

Target: acceptability and feasibility of using PRISMS among frontline health care workers at a rural health facility.

Preliminary Results

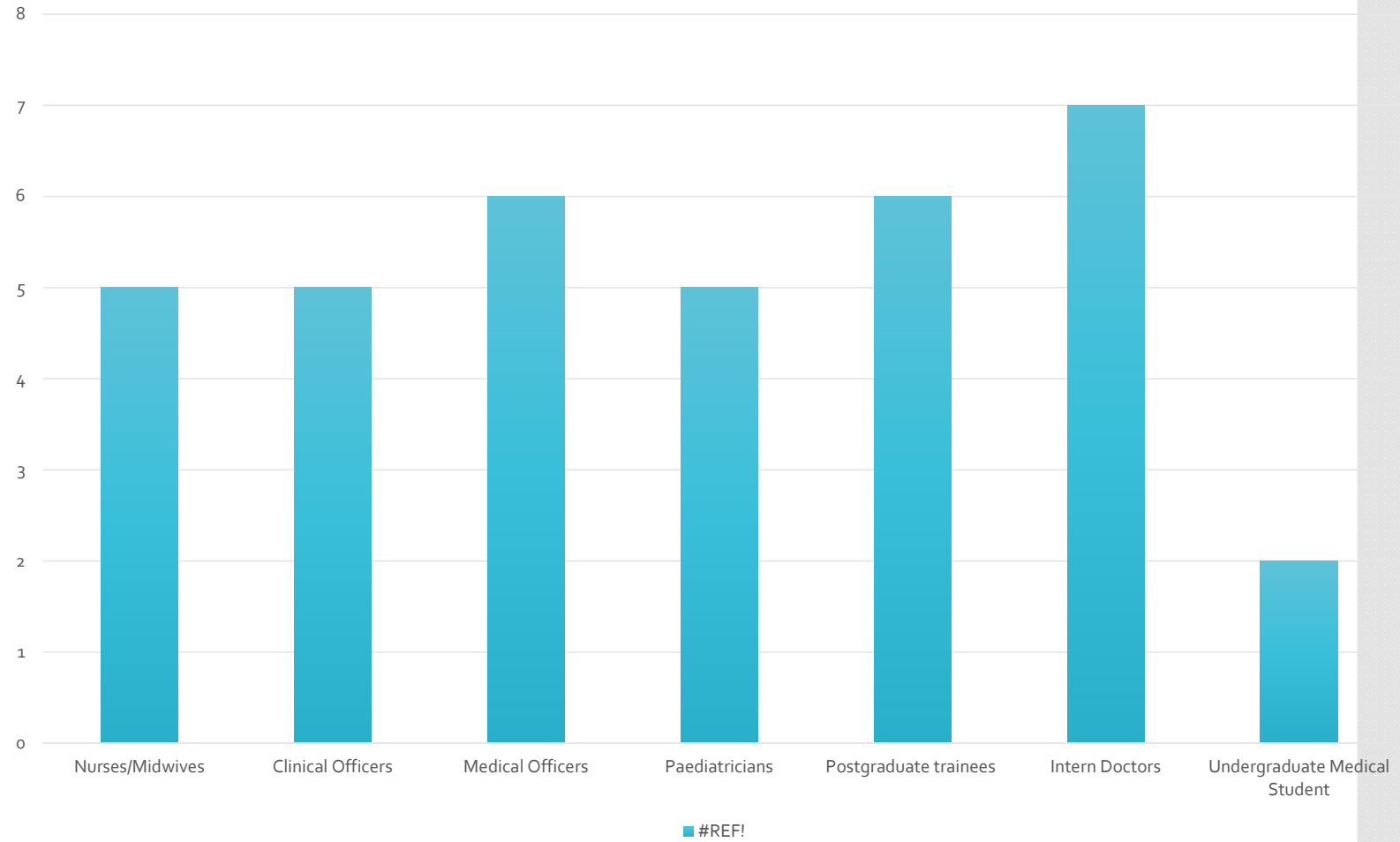
- Preliminary data: Analysis of data from our pilot project indicates the mean time to completion of patient assessment and development of a management plan using PRISMS was 2.2 minutes compared to 3.6 minutes without PRISMS. The difference is statistically significant with p value <0.0001 .
- Six of the seven pediatricians rated PRISMS as either good or very good in terms of ease of use.

Preliminary Results Cont'd

Parameter	Strongly disagree	Disagree	Neutral / Not sure	Agree	Strongly agree	%age
PRISMS provides sufficient management of the newborn	0	1	2	2	2	57.1%
I would use Prisms in the care of babies	0	0	2	3	3	85.7%
There were aspects of care that I missed but got reminded by PRISMS	0	1	0	4	2	85.7%
PRISMS provides comprehensive newborn management	0	1	2	4	0	57.1%
The investigations provided by PRISMS were adequate	0	0	0	6	1	100%
PRISMS can only be used outside Hospitals	2	2	2	1	0	14.3%
PRISMS should be used by all health workers	0	1	1	4	1	71.4%
PRISMS can be used in hospitals	0	0	1	4	2	85.7%
The cases were easy to manage	0	1	1	0	5	71.4%

Preliminary Results Cont'd

Cadre of health workers recommended to use PRISMS



Preliminary Results Cont'd

- All pediatricians recommended PRISMS for use by clinicians
- Five of the seven pediatricians rated PRISMS as either good or very good in terms of time to receive the feedback from the server
- Six of the seven pediatricians rated PRISMS as good in terms of time taken to complete filling information into the phone.

Currently,

- Doing a Randomised Controlled Trial (RCT) study.
- Deployed in 14 health facilities in Central and Rwenzori regions of Uganda
- The results will provide us with more evidence about the use of PRISMS in health facilities

Team Composition



Dr. Data Santorino (PI) - Ugandan Paediatrician, Lecturer and Master Trainer of Newborn programs



Dr. Francis Bajunirwe - Epidemiologist in the Department of Community Health at MUST. Experience in the design and analysis of clinical epidemiological studies.



Eng. Mukama Martin- Computer Engineer/Software Developer with 4 years experience in software development and system analysis.



Anitah Kusaasira - Midwife, Research assistant PRISMS.



- **THANK YOU**