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UGANDA: Establishing a Regional Learning Network to Improve Quality of Care for Mothers and Newborns

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Background

- There have been significant national-level commitments and policies in maternal-newborn health in Uganda in the last decade.
- Translating these national commitments into sub-national level action is the present challenge facing Ministry of Health (MOH) and development partners.
- The Uganda MOH therefore expressed interest in the development of a *Regional Learning Network (RLN)* as a way to strengthen the health system and improve MNH care and outcomes.

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Profile: Preterm Birth in Uganda

PRETERM BIRTHS AND DEATHS

Preterm birth rate (babies born <37 weeks): **14%**

Low birth weight rate (babies born <2,500g): **12%**

Babies born preterm per year: **226,000**

Ratio of boys to girls born preterm: **1.17**

Babies born per year <28 weeks: **11,000**

Impaired preterm survivors per year: **5,700**

Direct preterm child deaths per year: **12,500**

Source: http://www.everypreemie.org/wp-content/uploads/2016/02/Uganda.pdf

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What is the *goal* and the *intervention*?

- <u>Goal</u>: Improve MNH outcomes via achieving high quality MNH care in health facilities

- <u>Intervention</u>: the *Regional Learning Network* is a network of health facilities including and within the catchment of the regional referral hospital linked through QI collaborative and referral to provide quality newborn care services based on national standards and guidelines.

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Objectives

- Employ quality improvement methodology using tools and methods adapted to the Uganda settings, to address critical gaps in providing high quality MNH care

- Through the use of the QI methods and tools, produce new knowledge and learning on the best approaches to improve MNH care, coherent with the Uganda national policies.

- To spread, share, and document learning and develop institutionalized mechanisms of spread

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What is the *coverage*?

- RLN is a cross-sectional slice of the public health system
- 14 facilities in 6 districts of 1 out 5 regions of the country
- Learning and documenting how to improve quality of MNH services and create meaningful learning networks is the priority
- Plan to influence spread vertically (within the region) and horizontally (across regions), to achieve high coverage.

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Who are the *partners*?

- University Research Corporation (URC):
  - Implements Quality Improvement cycles , learning sessions and mentorship
- Saving Newborn Lives, Save the Children:
  - Focus on building functional network links among RLN facilities
  - Advocacy at district and National level.

- MOH /HRRH : Leadership and oversight
- District leadership: coordination, SCM, HR management, supervision

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Implementation Strategy

- **Network:**
  - Facilities organized in two levels of care, each level with clear clinical roles and tasks
  - Facilities coordinated for referrals and follow-up
- **Learning:**
  - Clinical knowledge and skills improved through:
    - Training center at Hoima RRH
    - Mentoring activities at facilities
  - **Quality Improvement:**
    - QI teams at each facility supported by URC Team at Hoima
    - Rapid improvement cycles and monitoring of indicators
    - Quarterly Learning Sessions

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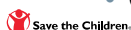
PROFILE OF NEWBORNS CARED FOR, AT LEVELS OF CARE IN THE NETWORK

	Standard Newborn Care	Standard plus Special Newborn Care
	HCIV/HCIIIs and District Hospital	**Regional Referral Hospital**
Profile of newborns cared for	- All term newborns - LBW > 1500g - GA 32-36 weeks - Birth asphyxia - Meconium staining - Possible infection	- All term newborns - All LBW and preterms born at RRH or referred - Babies with complications: 　o Severe jaundice 　o Meconium aspiration 　o Encephalopathy 　o Severe infection/Sepsis 　o RDS, Convulsions 　o Mechanical ventilation, 　o neonatal surgical problems & cong.

CONTENT OF CARE, BY LEVELS OF CARE IN THE NETWORK

	Standard Newborn Care	Standard plus Special Newborn Care
	HCIV and District Hospital	Regional Referral Hospital
Content of Care	Newborn: • Essential Newborn Care • Resuscitation (HBB) • Oxygen administration • Breastfeeding/tube feeding • KMC • IVF administration • Antibiotics Mother (Essential Obstetric Care): • Safe, clean delivery • Prolonged/obstructed labor • ACS for threatened preterm birth • Mgt of fever/chorioamnionitis • Mgt of PPROM • Mgt of severe Preeclampsia	Newborn: ▪ Essential & sick newborn care ▪ Essential Obstetric Care ▪ Oxygen therapy ▪ CPAP ▪ Phototherapy ▪ Mgt of hypoglycemia ▪ IV fluid and drugs administration ▪ Tube feeding ▪ Selected surgical interventions

Indicators Monitored

Impact

- Early institutional newborn mortality rate (live births deaths before discharge)
- Fresh stillbirths rate
- Case-fatality rates

process

- % newborns receiving essential newborn care components (bundle indicator)

- % of mothers presenting threatened preterm birth (<34 weeks) who received ACS in accordance to WHO guidelines

- % deliveries in which labor was correctly monitored with a partograph

Indicators cont'd

Process indicators

- % prolonged labor cases in which a appropriate action was taken

- % newborns not breathing spontaneously successfully resuscitated

- % newborns either preterm or LBW who received KMC

- % newborns with suspected severe bacterial infection given indicated antibiotics

Input indicators

- Score of health care workers' knowledge on essential newborn care

- % key newborn care drugs available at facility

- % key newborn care supplies available at facility

Activities implementated so far

URC team

- Facility baseline assessment
- Setting up of fxnal skills lab
- 3 clinical trainings
- Formed trained QI teams
- Conducted 1st learning session and QI training
- mentorship to QI teams

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- Equip skills lab and facilities
- RMNCH Scorecard dissemination.
- District level MNCH working group
- Advocacy (media, political leaders, local leaders, CSOs, opinion leaders)
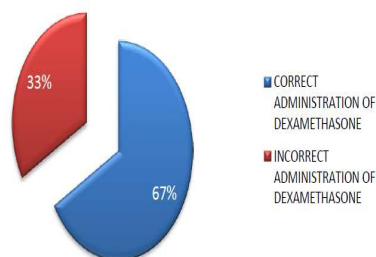- MPDSR training, tools, structures.

Baseline Assessment

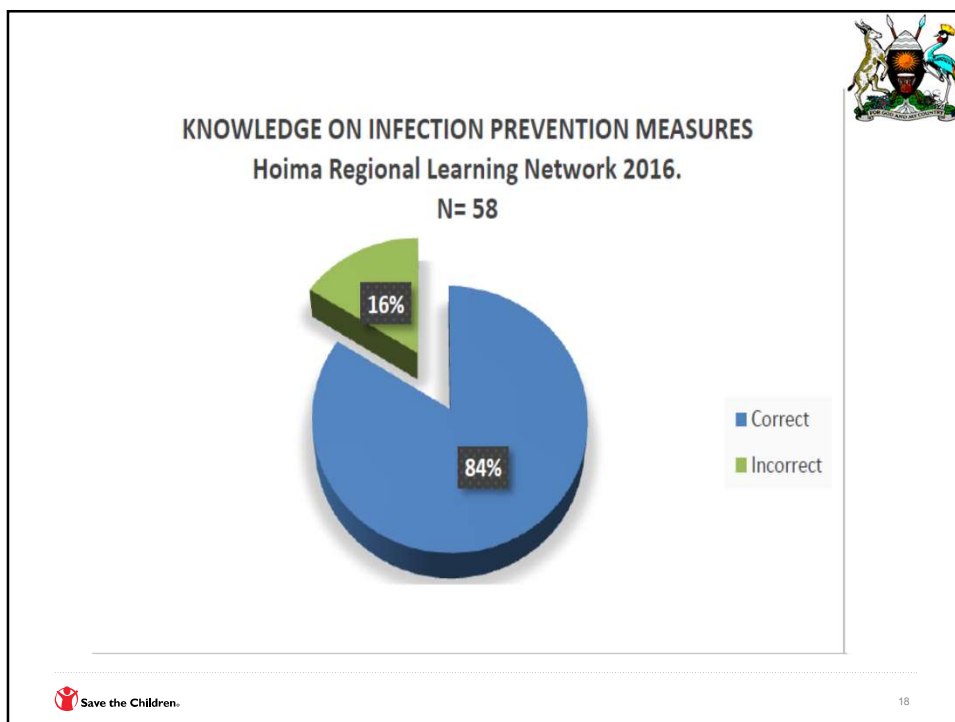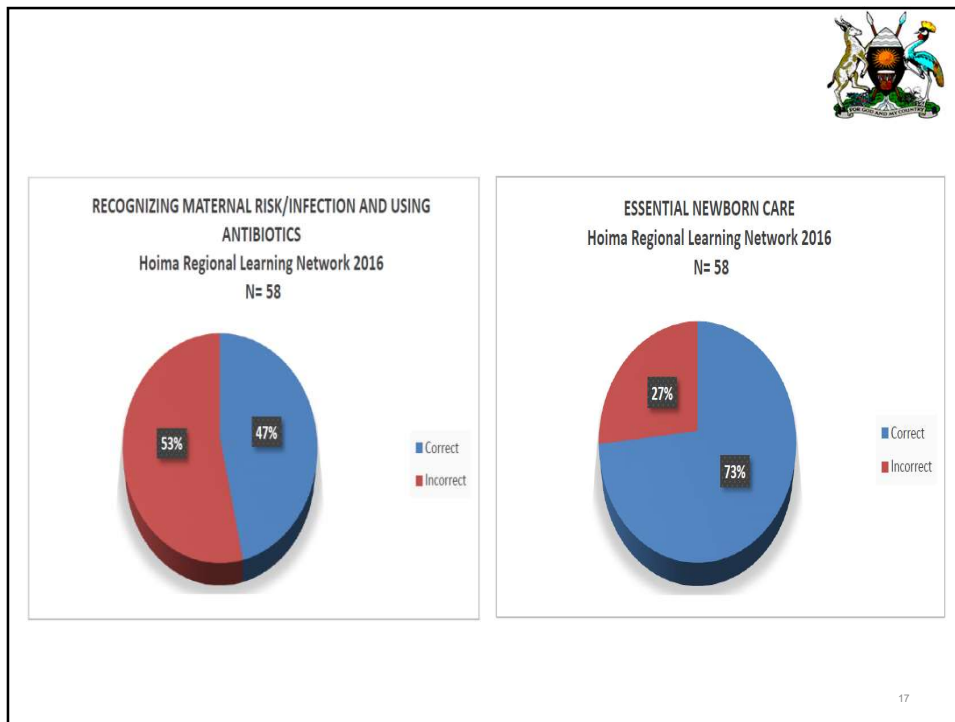| AIM	Quantitatively -status of the quality of newborn care
Method	Defined quality standards and established indicators based on Uganda MoH and WHO guidelines.
Data Source	Maternity registers, clinical records, direct observations using a checklist, and interviews
Areas Assessed	1. Knowledge of health workers about newborn care 2. Infrastructure and personnel availability 3. Availability of essential drugs and supplies 4. Existing QI Activities 5. Labour monitoring using Partograph 6. Essential newborn care 7. Infection control & prevention

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% ASSESSMENT FOR PREMATURITY AT ANY GA.
Hoima Regional Learning Network 2016.
N= 315 OBSERVATIONS

15
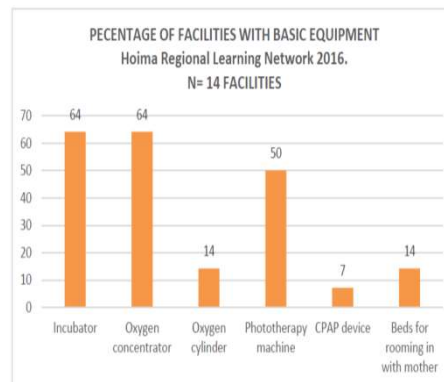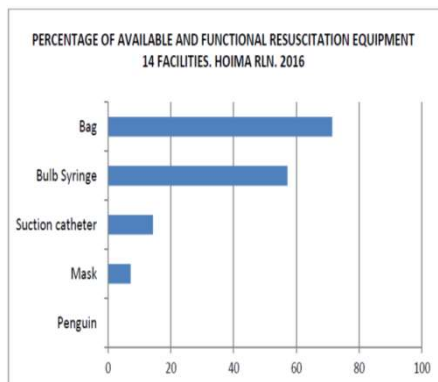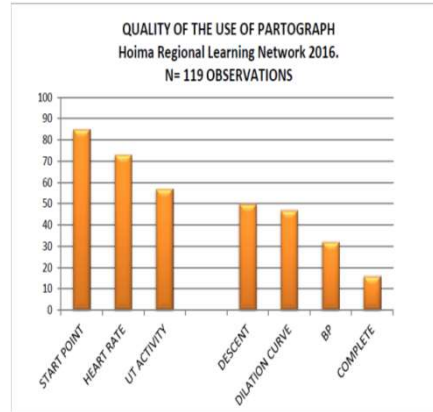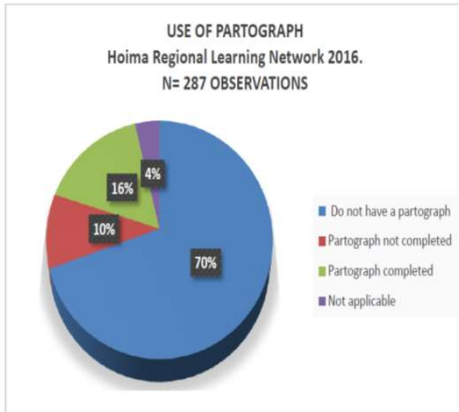85

■ ASSESSED BY ANY METHOD
■ NON ASSESSED
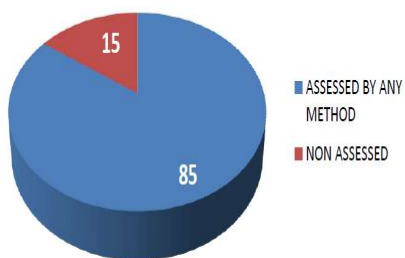
ADMINISTRATION OF DEXAMETHASONE IN PREMATURE DELIVERIES (24 TO 34 W GA)
N= 12 mothers who received dexamethasone out 96 preterm deliveries

33%
67%

■ CORRECT ADMINISTRATION OF DEXAMETHASONE
■ INCORRECT ADMINISTRATION OF DEXAMETHASONE

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RECOGNIZING MATERNAL RISK/INFECTION AND USING
ANTIBIOTICS
Hoima Regional Learning Network 2016
N= 58

53% 47%

■ Correct
■ Incorrect

ESSENTIAL NEWBORN CARE
Hoima Regional Learning Network 2016
N= 58

27%

73%

■ Correct
■ Incorrect

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KNOWLEDGE ON INFECTION PREVENTION MEASURES
Hoima Regional Learning Network 2016.
N= 58

16%

84%

■ Correct
■ Incorrect

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What are we doing?

Training sessions

Partograph use demos

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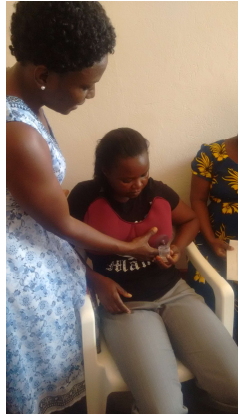# Practicums at Hoima RRH skills lab

Practical session on NGT feeding

Neonatal resuscitation practicum

Demonstrations at skills lab cont'd

Breastfeeding support   **Kangaroo Father Care**

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Mentorship on ENC at Hoima RRH

- Trainee demonstrates TEO application in ENC

- Trainee demonstrates Cord care

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KMC at Hoima Newborn unit

Trained QI teams set up in all 14 facilities

Planned activities

- Start first rapid improvement cycle –Dec 2016

- Continuing activities- district coordination meetings, mentorship, learning sessions and QI cycles

- Distribution of procured equipment informed by Baseline.

- Continuous data quality assurance (DQA)- working with districts and regional performance monitoring Team-(RPMT)

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