Save the Children

Feasibility and Effectiveness of the *Newborn Health in Humanitarian Settings Field Guide*

Findings from the baseline study in Bosaso, Somalia

Rationale for the *Field Guide*

- Despite improvements globally in newborn health, relatively poor outcomes persist in areas plagued by conflict or political instability
- Of the 15 countries with the highest neonatal mortality rates in the world, 14 are characterized by chronic conflict or political instability.
- International standards define emergency obstetric care and essential newborn care, yet these interventions remain poorly funded and poorly provided in humanitarian responses
- Women and newborns are particularly vulnerable, and responses do not match their burden of morbidity and mortality
- **Response assessments, supply kits, intervention packages, and indicators are largely missing newborn components**

Increasing attention

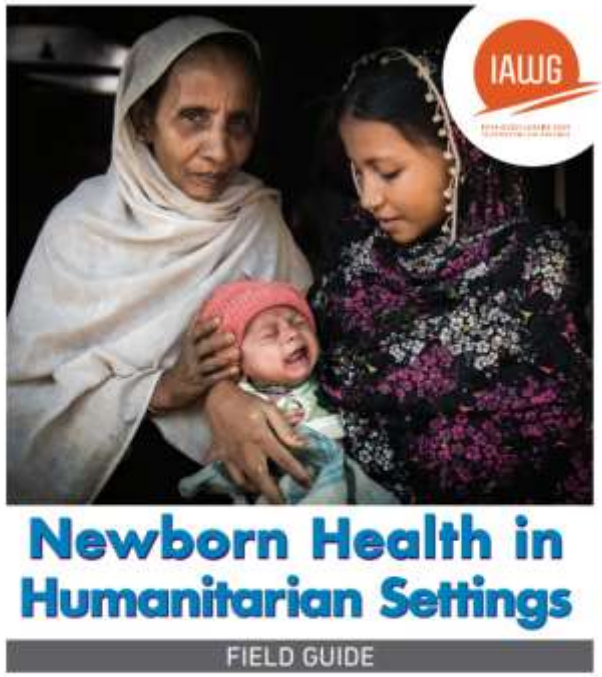
2011

2016/18

South Sudan & Somalia Pilot Study

The Field Guide

- Inter-agency collaboration, endorsed by WHO
- Companion to the *Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings* (IAFM) and *Minimum Initial Service Package* (MISP)
- Prioritizes critical health services and supplies to prevent and manage the three main causes of newborn death at each level of care
- Tested in South Sudan and Somalia



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Essential Newborn Care
Basic Care Required for Every Baby

Includes:

- **Thermal Care**
  - Delayed bathing
  - Drying
  - Keeping baby warm through skin-to-skin
- **Infection Prevention**
  - Handwashing for all caregivers
  - Hygienic umbilical cord and skin care
- **Feeding Support**
  - Early and exclusive breastfeeding
- **Postnatal Care**
  - Monitoring for danger signs of infections
  - Identifying babies requiring additional care

Newborn Health in Somalia:

- NMR : 46 deaths / 1000 livebirths
- MMR : 850 deaths / 100,000 livebirths
- U5 Mortality : 146 / 1000 livebirths

What's the feasibility and effectiveness of implementing the Newborn Field Guide in a context like Somalia?

Newborn Field Guide Testing in Somalia

The purpose of this study is to evaluate the feasibility and effectiveness of implementing newborn care services (a package of newborn care interventions and medical supply kits), as recommended in the *Newborn Health in Humanitarian Settings Field Guide*, through the use of mixed methods and multiple data sources.

Aim 1: Measure the effectiveness of the newborn health package to improve facility-based essential newborn care practices and quality of care for newborns

Aim 2: Assess the feasibility of integrating and delivering the newborn health package in an existing primary health care program

Baseline – Intervention – Endline

Study Design
Baseline Assessment of Essential Newborn Care

Baseline:

- **Health Facility Readiness Assessment**
- **Direct Observation**
- **Provider Skills Assessment**
- Postpartum Interview
- Register Review

Health Facility Assessment

- Structured questionnaire on the availability and readiness of the facility to provide essential newborn care (n = 4 facilities)

Direct Observation

- Direct observation of clinical practice during delivery and the immediate postnatal period
- External observers used a standard checklist on tablets in KoBo toolbox software

Provider Skills Assessment

- Clinical trainers from Nairobi assessed midwifes and nurses at each facility on their knowledge and skills to provide essential newborn care through simulated cases

Facility Readiness Assessment

Baseline

- Four primary health facilities in Bosaso, Somalia serving the internally-displaced population
- All offered 24/7 BEmOC services
- Combined catchment population of 135,000 with an estimated 34,000 WRA
- Structured Questionnaire – Infrastructure, HR Capacity, Equipment & Supplies

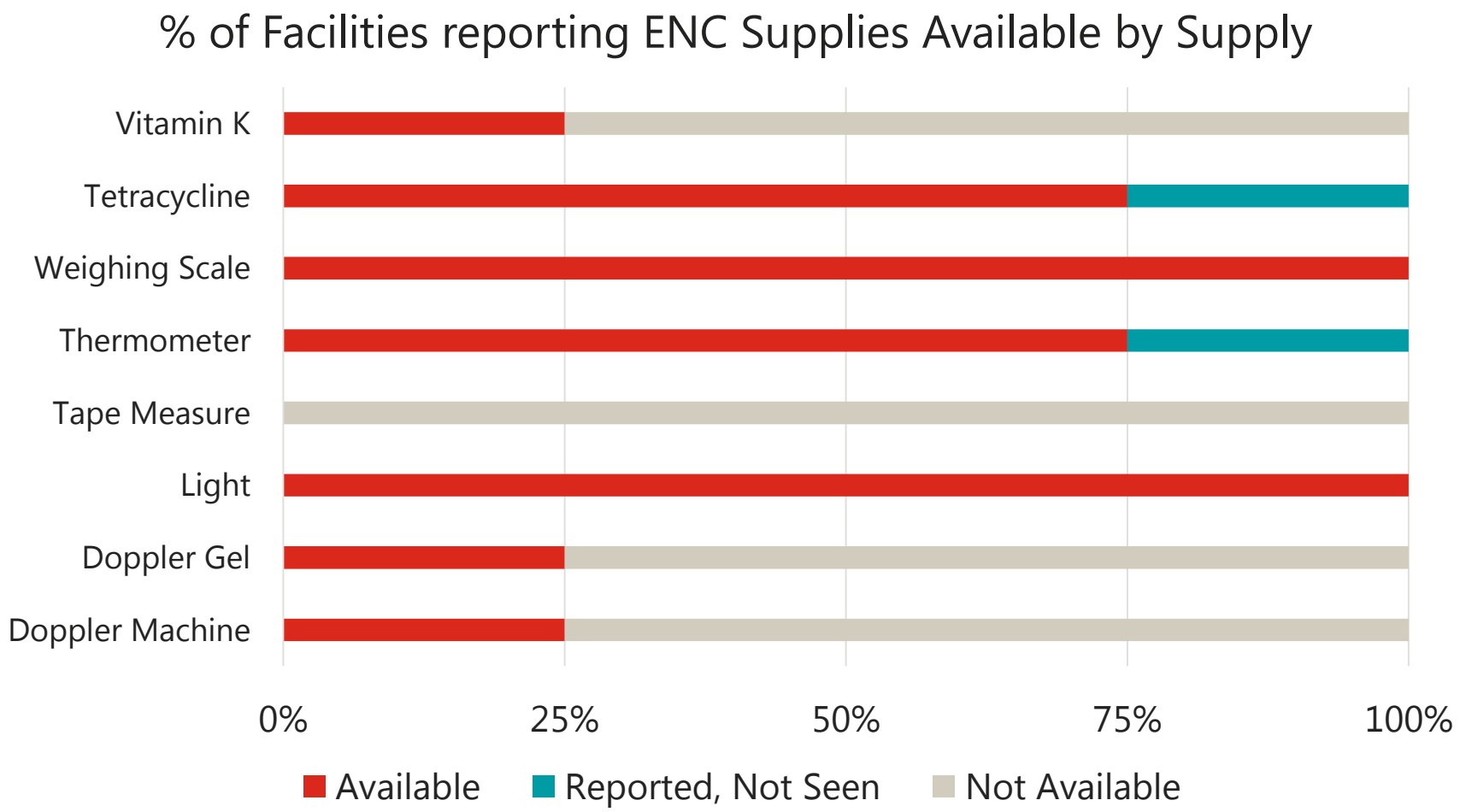
HF Infrastructure for Essential Newborn Care

Baseline Findings

- None of the facilities had a neonatal unit or inpatient care capacity
- 4 of the 4 facilities reported a consistent source of running water
- 3 of the 4 facilities reported reliable electricity
- All 4 facilities were within a 4 kilometer radius of the referral hospital
- Ambulance service shared among the 4 PHCs, provided by iNGO

Essential Newborn Care

Equipment and Drug Availability



Essential Newborn Care
Thermal Care

Supplies for Thermal Care:

- Baby Blankets – 0 / 4 facilities
- KMC Wraps – 0 / 4 facilities
- Towel for Drying – 0 / 4 facilities

Thermal Care Observed:

n = 243 livebirths

Care Provided	Observed
Newborns were dried immediately	239 **(98%)**
Newborns were not bathed within the first 6 hours, as observed at the health facility	241 **(99%)**
Newborns placed on mother's chest for skin to skin contact after the cord is cut	21 **(9%)**
Mothers and newborns were covered together with a blanket	5 **(2%)**
Newborn was covered with a cap in the first few minutes after birth	1 **(0.4%)**

Essential Newborn Care
Infection Prevention & Hygiene

Supplies for Infection Prevention and Hygiene:

- 100% of facilities had latex gloves in stock
- 100% of facilities had running water 24/7

Infection Prevention Observed:

n = 253 deliveries

Care Provided	Observed
Birth attendant washes hands with soap and water before examining patient	51 **(20.2%)**
Birth attendant wore clean gloves	251 **(99.2%)**
The stump of the umbilical cord is left without dressing (n= 246)	100 **(40.6%)**

Essential Newborn Care
Feeding Support

Feeding Support Observed:

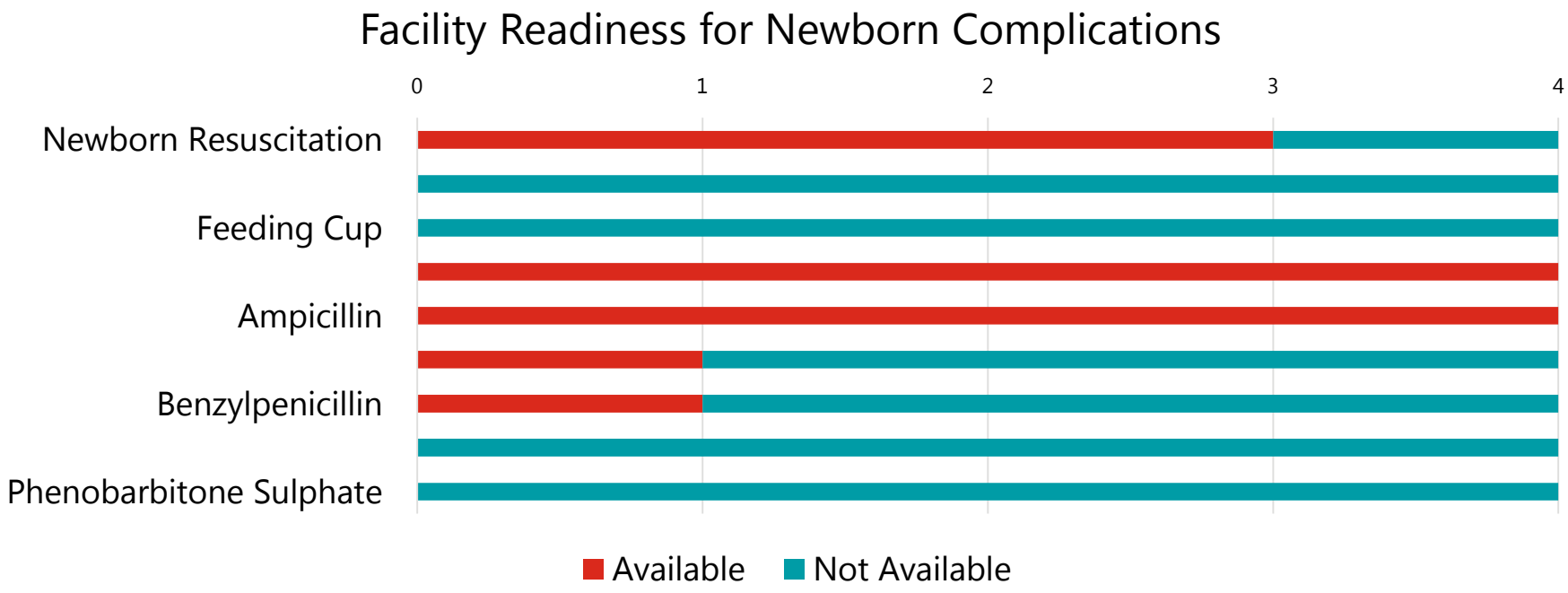
n = 246 livebirths

Care Provided	Observed
Newborn is placed on mother's abdomen or chest in skin to skin contact immediately	21 (8.5%)
Newborn remains in skin to skin contact for at least 60 minutes and until after the first breastfeed	6 (2.4%)
Mother is given time to self-attach newborn to the breast or signs of newborn readiness to initiate breastfeeding are pointed out	45 (18.3%)
Initiation of breastfeeding is observed in the first 60 minutes after birth	74 (30.1%)
If newborn and mother need to be moved from delivery room before first feed, they moved together maintaining skin contact (n= 124, not including mother/baby pairs that did not need to be moved before first feed)	3 (2.4%)
If there is immediate need to separate newborn and mother, then skin contact and initiation of breastfeeding is provided as soon as newborn and mother are stable (n= 110, not including mother/baby pairs that did not need to separate immediately)	11 (10.0%)

Essential Newborn Care
Monitoring Newborn Complications

Supplies Available:

- 3 of the 4 facilities were able to provide resuscitation to newborns
- None of the facilities had wraps or inpatient space to offer KMC
- Only 1 facility was able to treat newborn sepsis



Essential Newborn Care
Monitoring Newborn Complications

Care Provided:	Observed: N (%)
Written guidelines for resuscitation and care of newborn are available in health facility	0 (0.0%)
A poster for resuscitation of newborn is clearly visible and available in delivery room	0 (0.0%)
A clean surface is set up for resuscitation in labor room	23 (9.4%)
A functioning self- inflating bag with relief valve is available and ready to use in labor room	37 (15.0%)
Term baby size masks are available and ready to use in labor room	43 (17.5%)
Preterm size masks are available and ready to use in labor room	4 (1.6%)
Suctioning devices are available and in good working conditions	23 (9.4%)
If a newborn is not breathing, is resuscitation initiated according to HBB flowchart (n= 34, not including newborns recorded as breathing)	11 (32.3%)

Human Resources

Baseline Findings

- The total number of health providers at each facility ranged between 13 and 16, with an **average of 14.5 personnel**
- Only one of the facilities did not have a qualified health care provider present or on call at all times
- The primary barriers identified to providing newborn care services were cited as "**management issues**" and "**training issues**"

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Catchment population	32,000	34,171	39,564	29,000
Average deliveries / mo.	55	74	44	93
Cohort	n / %	n / %	n / %	n / %
Registered Nurse	3 / 21	6 / 38	3 / 20	3 / 23
Auxiliary Nurse	6 / 43	7 / 44	6 / 40	3 / 23
Midwife	3 / 21	3 / 19	4 / 27	4 / 31
Community Midwife	2 / 14	0 / 0	2 / 13	3 / 23

Essential Newborn Care

Baseline Provider Skills Findings

Providers were assessed by master trainers on their ability to provide essential newborn care in two scenarios.

ENC for Newborn with no complications:

- Average score among midwives was 41% with score ranging from 15% to 65%
- Average sore among nurses was 78% with score ranging from 60% to 95%
- **66.7% (8/12) scored below 60%**

ENC for newborn with intrapartum complications (birth asphyxia):

- Average score among midwives was 31% , range 10-90%
- Average score among nurses was 95%, range 90-100
- **75% (9/12) scored below 60%**

Newborn Complications

Baseline Provider Skills Findings

Provider skills for newborn resuscitation were assessed based on two scenarios:

Resuscitation Scenario 1

- Average score among midwives 66%, with a range of 25% to 92%
- Average score among nurses 29%, with a range of 17% to 42%
- **50% (6/12) scored below 60%**

Resuscitation Scenario 2

- Average score among midwives 26%, with a range of 5% to 52%
- Average score among nurses 19%, with a range of 5% – 33%
- **All (12/12) scored less than 60%**

What Came Next:

Intensive Clinical Training in intrapartum care for mother and newborn

- Seven day training + two additional days for in-charge / supervisors
- Trainers brought in from Nairobi
- Refresher was required
- Included proper record keeping

Delivery of complete newborn supply kits to all four facilities

Challenges:

- Unable to establish supportive supervision system due to lack of supervisors in-country and reliance on international trainers
- Unable to reach saturation of health care providers in one training
- High turnover of staff in project and facility

Addressing the health facility readiness gaps alongside quality assurance is critical to improve newborn survival in complex humanitarian situations like Somalia.

Provision of drugs and medical supplies should be **coupled with strengthening providers' clinical skills** and advocating for necessary policy shifts.

Implementing the *Newborn Field Guide* aims to address these critical gaps and lead to improved care and for mothers and newborns in Somalia.

THANK YOU

Save the Children.