

WEBINAR: IMPROVING NEWBORN HEALTH IN REFUGEE OPERATIONS

UNHCR

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**OPERATIONAL GUIDELINES ON
IMPROVING NEWBORN HEALTH
IN REFUGEE OPERATIONS**



Agenda

- Global context and epidemiology of newborn health
- Newborns in refugee contexts
- Essential Components of Care
 - Childbirth, EmONC and Essential Newborn Care
 - Interventions targeting 3 Leading Causes of NN Mortality
- Community-level interventions
- Staffing and Capacity Building
- Essential Supplies and Equipment
- Monitoring Newborn Care Services
- Case Study: Dr. Dina Jardaneh, Public Health Officer Jordan

OBJECTIVES of WEBINAR



TO UNDERSTAND THE
GLOBAL BURDEN OF
NEONATAL DEATHS



TO BECOME
FAMILIAR WITH THE
UNHCR
OPERATIONAL
GUIDELINES



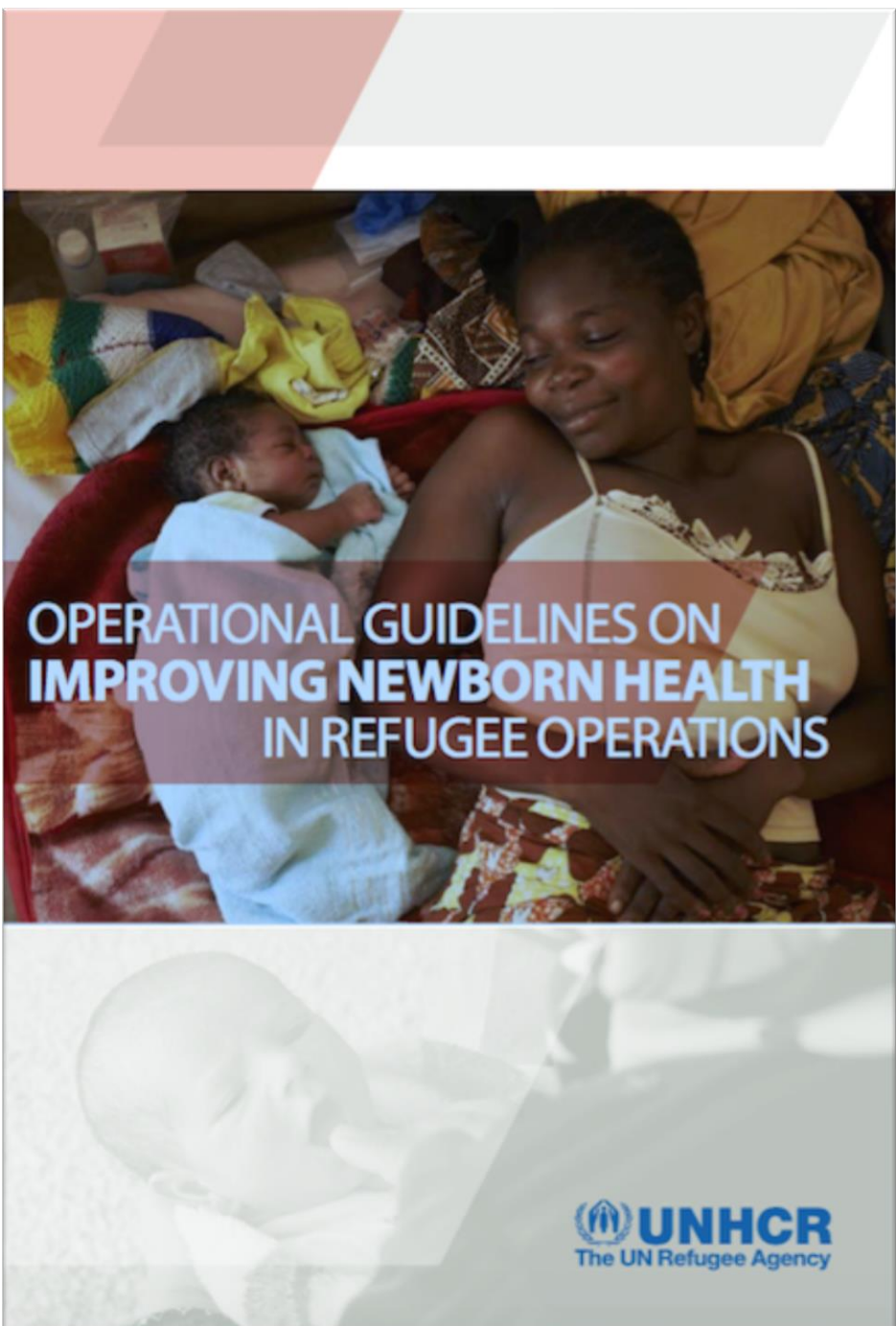
TO BE FAMILIAR
WITH THE HIGH
IMPACT PRACTICES
THAT CAN BE
IMPLEMENTED IN
YOUR PROJECTS



TO MOTIVATE YOU
TO ASSESS YOUR
OWN PROJECT
SITES AND MAKE A
PLAN TO FILL GAPS



TO SHARE YOUR
EXPERIENCES AND
IDEAS WITH ONE
ANOTHER



Background and Rationale

- “Newborn” or “neonate” is a baby in the first 28 days of life
- Globally, 7000 newborns die every day, 2.5 million every year¹
- Of the 16 countries with the highest neonatal mortality rates, 11 have experienced recent humanitarian crisis²
- Most neonatal deaths are **preventable with simple, low-cost interventions**
- Many of these interventions **are not implemented, or need to be scaled-up, in refugee operations**
- *Operational guidelines on improving newborn health in refugee operations* developed in 2013 to help give direction on essential services for newborns.

Sustainable Development Goal (SDG) Target 3.2:

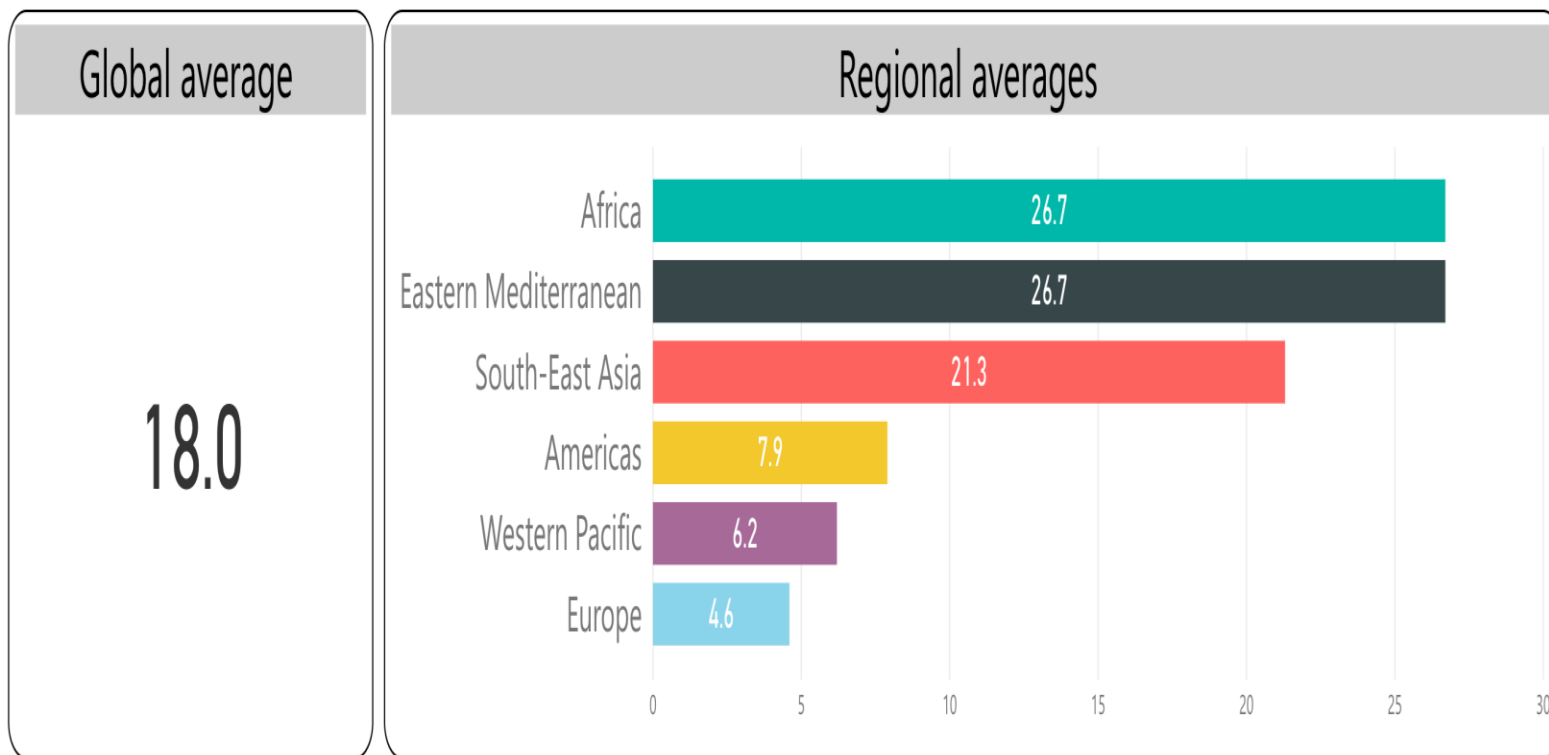
By 2030, reduce neonatal mortality to at least 12 per 1,000 live births

Neonatal mortality rate (per 1000 live births)

Year : 2017

47% of deaths among children under five were newborns in 2017

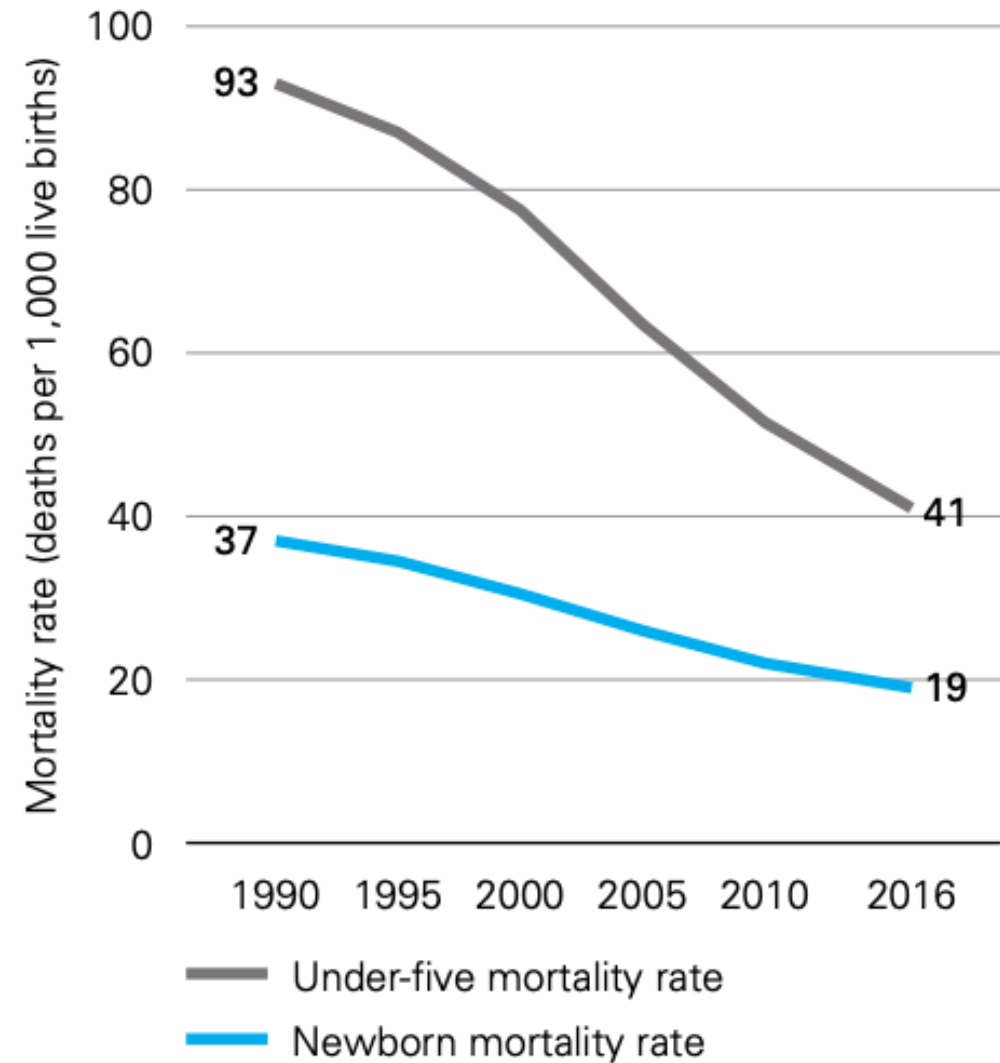
Last updated : 2019-02-05



Neonatal mortality rates are decreasing more slowly than U5 rates

Neonatal deaths now account for 47% of all U5 deaths (2017)

- Lack of political will/attention
- Many health policies have not paid much attention to the newborn – focused more on maternal and child health
- Required health interventions are different than those for older infants/children
- Rwanda: On Track: has increased access to health services; certification of health facilities; increased neonatal services; FP



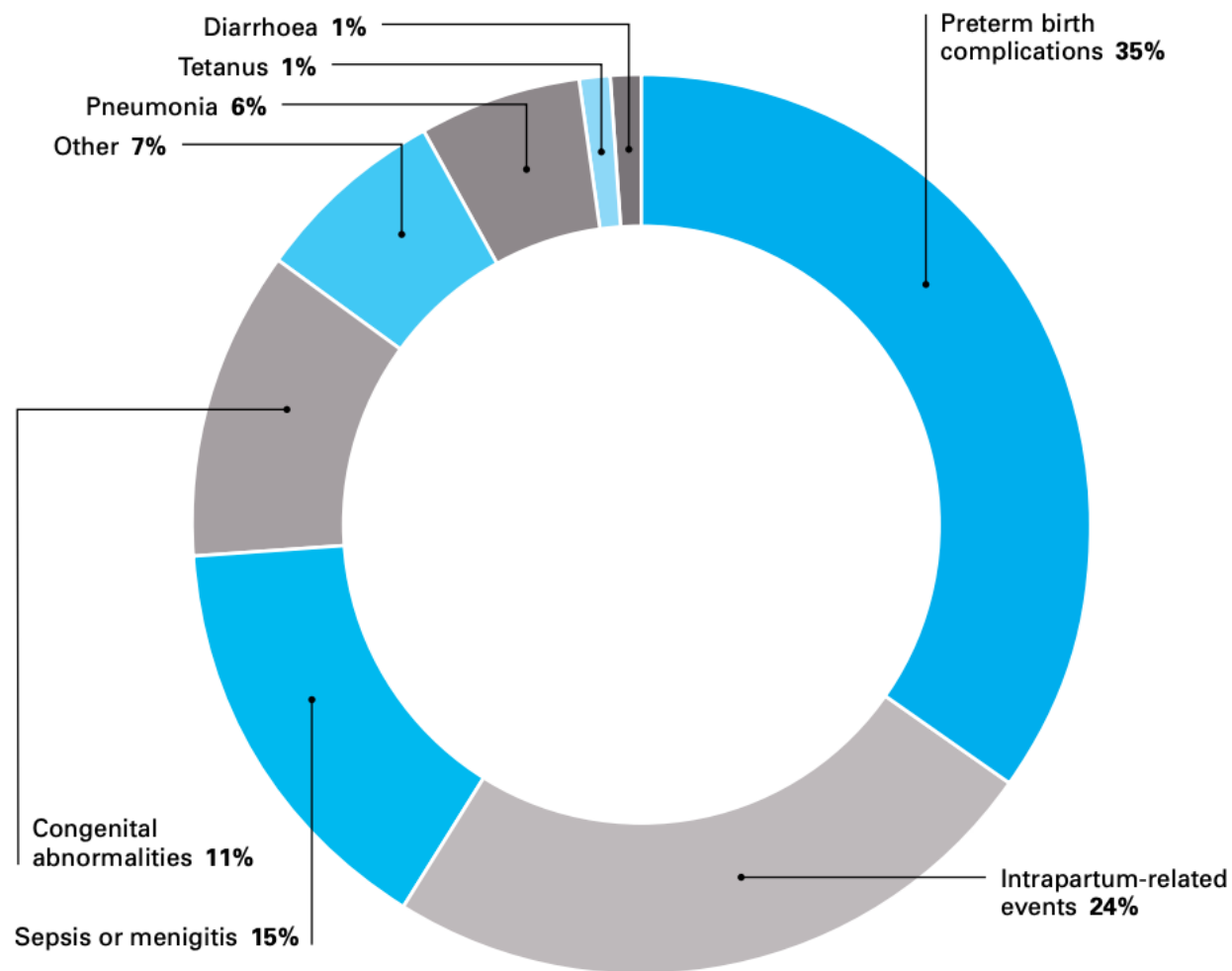
Source: United Nations Inter-agency Group for Child Mortality Estimation, 2017.

Leading Causes of Neonatal Mortality

Globally, the three leading causes are:

1. Preterm birth complications
2. Intrapartum-related events (i.e. birth asphyxia)
3. Serious infection (sepsis, meningitis)¹

Up to 40% of neonatal deaths occur within the **first 24 hours** of birth and nearly 75% in the **first week** of life².



Source: United Nations Inter-agency Group for Child Mortality Estimation, 2017.

Neonatal mortality rates in humanitarian settings

Among countries with the highest neonatal mortality, many face humanitarian situations, including population displacement.

Many of these countries also have poor baseline socioeconomic status and weak health systems

Neonatal mortality rates across 27 countries with protracted emergencies

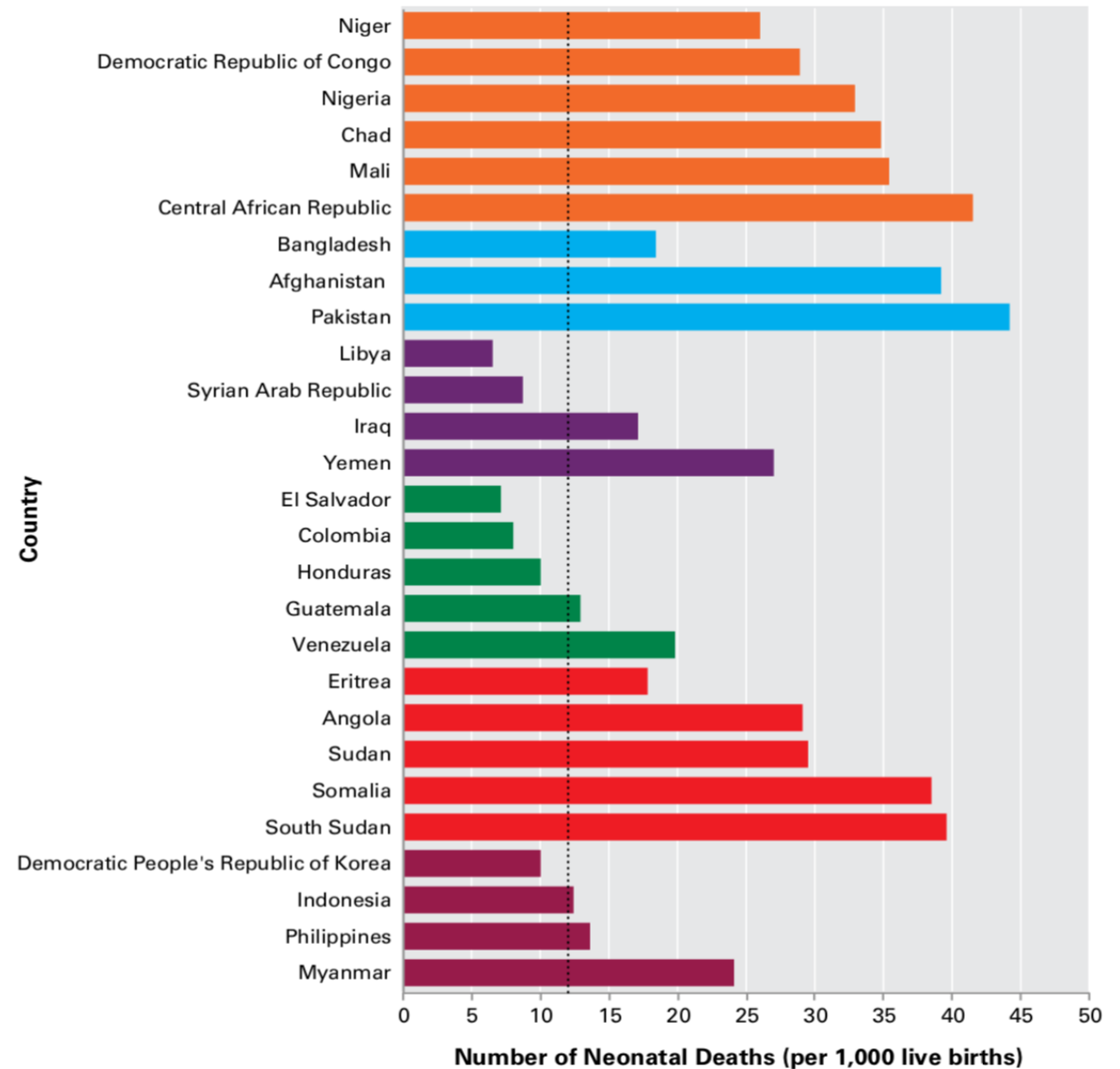


Figure Source: pg 6 IAWG (2019): **SURVIVING DAY ONE: Caring for Mothers and Newborns in Humanitarian Emergencies on the Day of Childbirth**

What about newborns in refugee settings?

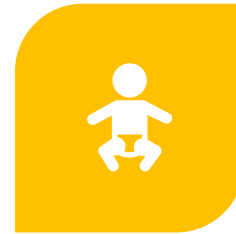
UNHCR has been **increasing its focus on maternal and newborn health** in recent years. Activities include:



RESEARCH:
MATERNAL AND NEONATAL
MORTALITY RATES ARE OFTEN
BETTER THAN HOST RATES IN
POST-EMERGENCY CAMP
SETTINGS



2013 FARCHANA CAMP IN
CHAD: 1. MAIN CAUSES OF
NEONATAL MORTALITY IN
REFUGEE CAMPS THE SAME AS
GLOBAL TRENDS. 2. HIS
REPORTS SEVERELY UNDER-
REPRESENTED ACTUAL NMR
(HIS 3.5 PER 1000; 49 PER 1000
USING STUDY METHODS
(CAPTURE-RECAPTURE))



2013 DEVELOPMENT OF
NEONATAL DEATH AUDIT
PROCESS IN JORDAN (WITH US
CDC) IN RESPONSE TO
INCREASED NEONATAL
MORTALITY RATES



BILL AND MELINDA GATES
FOUNDATION "SAVING
NEWBORN LIVES" PROJECT:
SOUTH SUDAN, JORDAN,
KENYA 2016-2018; CHAD,
CAMEROON, NIGER 2018-
2020.



NEW UNHCR OPERATIONAL
GUIDELINES (NEWBORN,
MATERNAL, FAMILY
PLANNING, ADOLESCENT SRH)

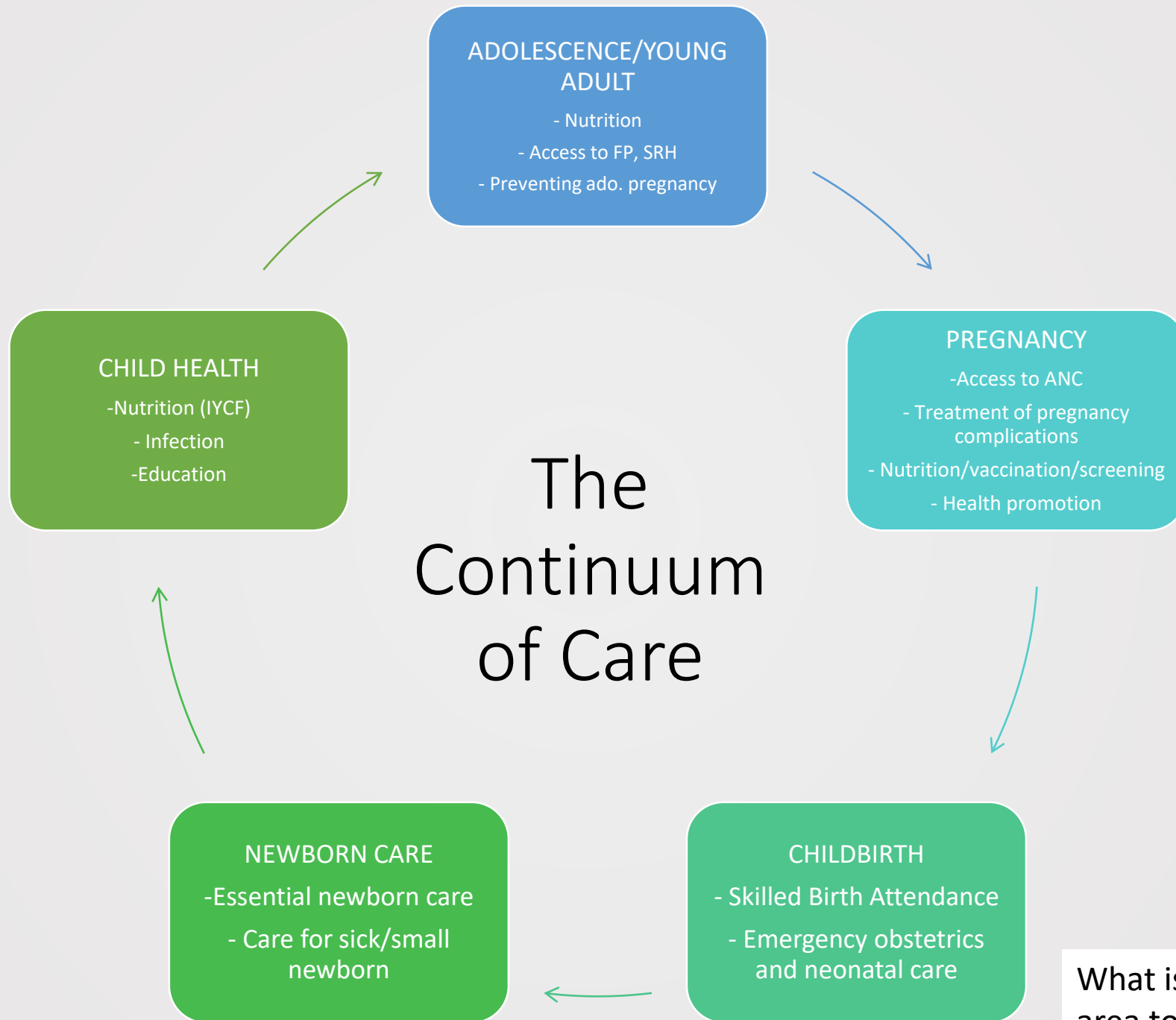
Discussion: Neonatal Mortality Rates in Your Operation

- HIS reports in Farchana in East Chad in 2013 showed NMR of 3.5 per 1000 live births whereas study found rate of 49 per 1000.
- Are your NMRs unusually low/high/ or “just right”?
- How do you ensure you are capturing all deaths that occur outside the health facility?



Essential Components of Health Services

Childbirth and Neonatal Care



What is the most impactful area to focus on?

POTENTIAL FOR LIVES SAVED BETWEEN 2016-2030 WITH KNOWN INTERVENTIONS

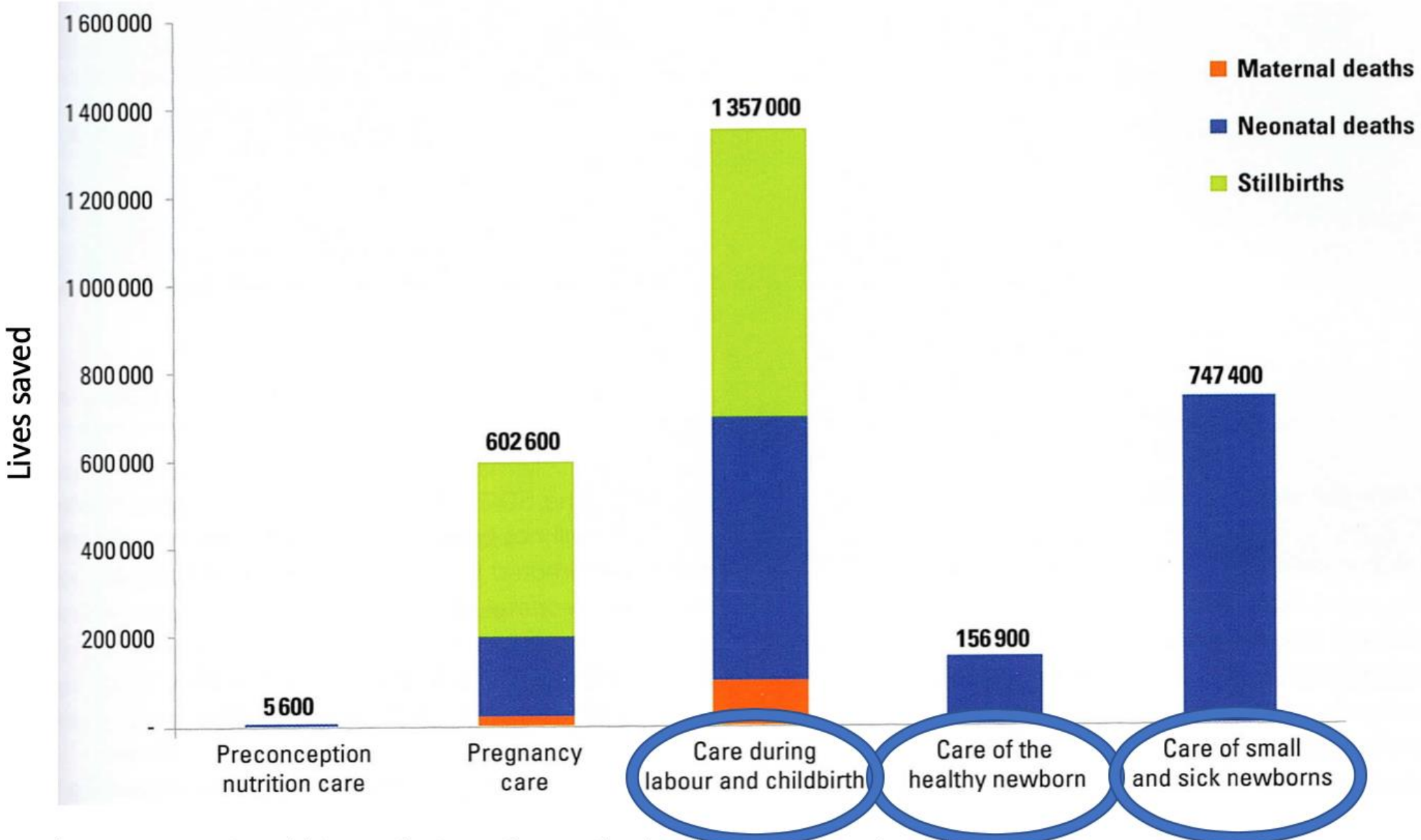


Chart: WHO 2019. Survive and Thrive: Transforming care for every sick and small newborn (uncorrected proofs). Pg7
Adapted from Bhutta et al. 2014. *Can available interventions end preventable deaths in mothers, newborn babies, and stillbirths, and at what cost.*

Essential Childbirth Care

Skilled birth
attendant (24/7)

Access to EmONC
functions

Partograph

Hygiene ++

Respectful
maternity care

Active
management of
third stage of
labour (oxytocin)

Referral
mechanism

Essential Newborn
Care

Emergency Obstetric and Neonatal Care (EmONC)

		Signal Function	Essential materials
COMPREHENSIVE	BASIC	1. Administration of parenteral antibiotics	Various (ampicillin, gentamycin)
		2. Administration of parenteral anticonvulsants	Magnesium sulfate, calcium gluconate, hydralazine, methyldopa
		3. Administration of uterotonics	Oxytocin, misoprostol
		4. Manual delivery of the placenta	Prophylactic antibiotics
		5. Evacuation of uterine contents (MVA)	Manual vacuum uterine aspirator (MVA), misoprostol
		6. Instrumental assisted delivery (vacuum/ventouse)	Vacuum extractor (Kiwi, Omni-cup)
		7. Maternal and neonatal resuscitation	Resuscitation bag and mask (sizes 0 and 1 for neonates); suction; adult size for mother
		8. Blood transfusion	Tests: blood type, infectious diseases (HIV, HBV, HCV, syphilis)
		9. Caesarean section	Surgical kit

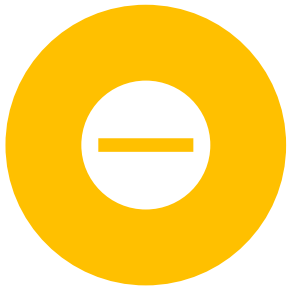
Monitoring EmONC Status of Health facilities



Availability: 5 health facilities providing EmONC per 500,000 population (4 basic and 1 comprehensive) with an equitable distribution of facilities and services



Use a structured checklist to check for provision of services and **associated medications and equipment**



Must have provided all 7 signal functions in the past 3 months to be considered BEmONC facility



Common reasons for not achieving BEmONC status include: small health facilities who don't encounter all complications within 3 months; lack of required equipment; lack of trained staff; policy restrictions

Discussion - EmONC status

Questions on Essential Components of Childbirth Care?

Discussion:

- How do you assess/monitor the EmONC status of your health facilities?
- What are the main barriers you face to provide all 7 signal functions?
- What steps have you taken to overcome these barriers?



Essential Newborn Care (for all babies)



Initiation of breathing and resuscitation



Delayed cord clamping and hygienic cord care*



Thermal care (immediate drying, placing skin-to-skin, delayed bathing (24 hours))



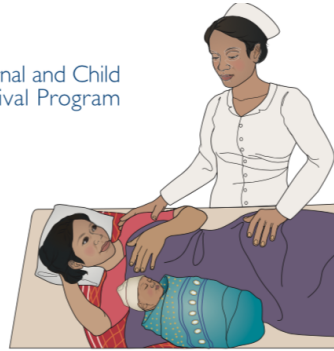
Tetracycline eye ointment and vitamin K



Early and exclusive breastfeeding



Postnatal care checks/monitoring for danger signs



POSTNATAL CARE PRE-DISCHARGE CHECKLIST

Do not discharge until at least 24 hours after a normal vaginal birth.

Complete checklist items for every mother and newborn, regardless of when they are discharged.

Assess Mother for Problems	No	Yes	Recommended Actions
The mother has a danger sign: <ul style="list-style-type: none"> • Heavy bleeding • Severe abdominal pain • Unexplained pain in chest or legs 		→	Assess the cause(s) and initiate care or refer. Delay discharge until all danger signs have been resolved for at least 24 hours and there is a follow-up plan in place.
<ul style="list-style-type: none"> • Visual disturbance or severe headache • Breathing difficulty • Fever, chills • Vomiting 			
The mother's bleeding is heavy or has increased since birth (e.g., bleeding soaks a pad in less than 5 minutes).		→	Delay discharge. Evaluate and treat possible causes of bleeding (e.g., uterine atony [not contracted], retained placenta, or vaginal/cervical tear).
The mother has an abnormal vital sign: <ul style="list-style-type: none"> • High blood pressure (SBP > 140 mmHg or DBP > 90 mmHg) • Temperature > 38.0°C • Heart rate > 100 beats per minute 		→	Evaluate the cause of abnormal vital sign(s) and treat or refer. Defer discharge until vital signs have been normal for at least 24 hours and no danger signs remain.
The mother is not able to urinate easily or is leaking urine.		→	Defer discharge; continue to monitor and evaluate the cause; treat or refer as needed.
The mother is being treated for a complication, and her condition has not stabilized (e.g., vital signs are not normal or she has a danger sign).		→	Delay discharge until the mother's condition has been stable for at least 24 hours, with normal vital signs and no danger signs remain. Refer if necessary.
Assess Baby for Problems	No	Yes	Recommended Actions
The baby has any of these danger signs: <ul style="list-style-type: none"> • Fast breathing (> 60 breaths/minute) • Severe chest in-drawing • Fever (temperature ≥ 37.5°C axillary) • Hypothermia (temperature < 35.5°C) 		→	Assess cause of danger signs and initiate care or refer. Delay discharge until all danger signs have been resolved for at least 24 hours and there is a follow-up plan in place.
<ul style="list-style-type: none"> • Yellow palms (hands) or soles (feet) • Convulsions • No movement or movement only on stimulation • Feeding poorly or not feeding at all 			
The baby is not breastfeeding at least every 2–3 hours (day and night).		→	Delay discharge and evaluate the causes. Treat or refer. Delay discharge until the baby has been breastfeeding well for at least 24 hours.

Immediate Postnatal Care

- For uncomplicated deliveries, remain in health facility for **24 hours post-delivery (with monitoring and care provided!)**
- Assessments in 6 countries found few stay 24 hours AND very little care is being given and/or documented after leaving the delivery room and before discharge.
- A structured protocol of care should be in place for assessments and health education to be provided during the first 24 hrs in health facility. Ensure a clinical record is completed
- Implementing a [postnatal care pre-discharge checklist](#) may be useful
- Important opportunity for health education and postpartum family planning
- Follow-up visits for mother and baby on Day 1, 3, 7-14 of life; and 6 weeks

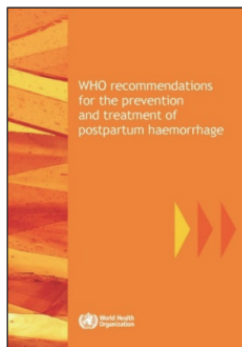
DELAYED CLAMPING OF THE UMBILICAL CORD TO REDUCE INFANT ANAEMIA

World Health Organization Recommends Delayed Cord Clamping

Late cord clamping (performed after 1 to 3 minutes after birth) is recommended for all births while initiating simultaneous essential newborn care.

The problem: Anaemia in children, with a major cause being iron deficiency, causes increased child mortality as well as impaired cognitive, motor and behavioural development.¹ Sixty-eight and 66 per cent of preschool-age children are anaemic in sub-Saharan Africa and Southeast Asia, respectively. Two-thirds of the 293 million preschool-age children with anaemia live in these two regions of the world.²

The intervention: In the recently released 2012 *WHO Recommendations for the Prevention and Treatment of Postpartum Haemorrhage*, WHO reiterates its previous recommendation of waiting to clamp and cut the umbilical cord following the birth of the baby. The recommendation is based on the understanding that a delay in clamping the cord allows continued passage of blood from the placenta to the baby for an additional 1 to 3 minutes after birth. This brief delay is known to increase the iron stores of the young infant by over 50% at 6 months of age among babies born at full-term.³ Currently, however, the coverage for this intervention has been limited due to a lack of information about its benefits as well as concerns about the practice. The purpose of this brief is to describe the benefits of the intervention and why it is not currently being used, so that **delayed cord clamping** can be enthusiastically supported and promoted as a **best practice by maternal health, newborn health, HIV and nutrition professionals.**



Theoretical Barriers to and Concerns about Delayed Cord Clamping


- **Jaundice (yellowing of the eyes and skin) requiring phototherapy:** Studies show only a 4.36% risk of jaundice in babies who receive delayed cord clamping, compared to a 2.74% risk in babies who have early cord clamping. There is no increased risk of severe jaundice.⁴
- **Polycythemia (too many red blood cells causing blood to thicken):** Studies reveal no increased risk of polycythemia when a baby receives delayed cord clamping.⁴
- **HIV:** WHO recommends delayed cord clamping for all women, including HIV-positive mothers and mothers whose HIV status is unknown (see Frequently Asked Questions about Delayed Cord Clamping, page 2).⁵
- **Previously unclear clinical guidance on performing DCC:** WHO now recommends integrating delayed cord clamping into essential newborn care and management of the third stage of labour (see Clinical Guidance, page 4).^{5,6}

Delayed Cord Clamping

WHO recommends waiting 1-3 minutes after delivery before clamping and cutting the umbilical cord

- This delay allows additional blood to flow from placenta to newborn, and can increase iron stores in newborn by 50% at 6 months of age
- Reduces risks of other complications (intraventricular hemorrhage, necrotizing enterocolitis; sepsis)
- Does NOT increase risk of mother-to-child HIV transmission
- Only 33% of childbirth providers in Cameroon reported practiced delayed cord clamping, 0% in Chad and 0% in Niger.

https://www.healthynewbornnetwork.org/hnn-content/uploads/WHO_Delayed-Cord-Clamping-to-Reduce-Infant-Anaemia_2013.pdf



Chlorhexidine to reduce omphalitis and sepsis

WHO Recommendation:

Daily chlorhexidine application to the umbilical cord stump during the first week of life is recommended for newborns **who are born at home in settings with high neonatal mortality** (30 or more neonatal deaths per 1,000 live births).

Clean, dry cord care is recommended for newborns born in health facilities and at home in low neonatal mortality settings. Use of chlorhexidine in these situations may be considered only **to replace the application of a harmful traditional substance**, such as cow dung, to the cord stump.

- Research to date is mixed, however many countries have adopted chlorhexidine as a standard of care
- Recommended formulation is chlorhexidine gluconate 7.1% delivering equivalent of 4% chlorhexidine. Other formulations have not been proven.

FEB 2019 WARNING on INCORRECT USE OF CHLORHEXIDINE LEADING TO EYE INJURY/BLINDNESS https://www.healthynewbornnetwork.org/hnn-content/uploads/alert133_chlorhexidine.pdf

How to increase breastfeeding in your operations?

Policy

- Adopt a breastfeeding policy in health facilities
- Take a multi-sectoral approach (health, nutrition, wat/san, shelter, camp management)
- Control donations of breast milk substitutes in your operations. Use Breast Milk Substitute (BMS) only for medical reasons

Health facility

- Take action from the moment of birth – put skin to skin and encourage breastfeeding within the first 30 minutes
- Non-separation of mother and newborn
- **Training** for midwives/nurses
- Health promotion for mothers/families (ANC/PNC)

Community

- Understand local customs and practices
- Use community health workers
- Mother-to-mother support groups
- Involve elder females and men in sensitization efforts
- Mother and baby-friendly spaces in community (emergency)

[WHO Guideline: Protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services](#) (2017)

[Ten steps to successful breastfeeding](#) (health facility)

[Infant and Young Child Feeding in Refugee Situations: A Multi-Sectoral Framework for Action](#) (Save the Children and UNHCR, 2018)

[Operational Guidance on Infant and Young Child Feeding in Emergencies](#) (Interagency Working Group IFE v3 2017)

Discussion – Essential Newborn Care

Questions on Essential Newborn Care?

Discussion:

- Does anyone have experience implementing chlorhexidine at the community level?
- If so, how did you go about implementing it?



How can we address the 3 leading causes of neonatal mortality?



INTRAPARTUM-RELATED
(BIRTH ASPHYXIA)



SERIOUS INFECTIONS



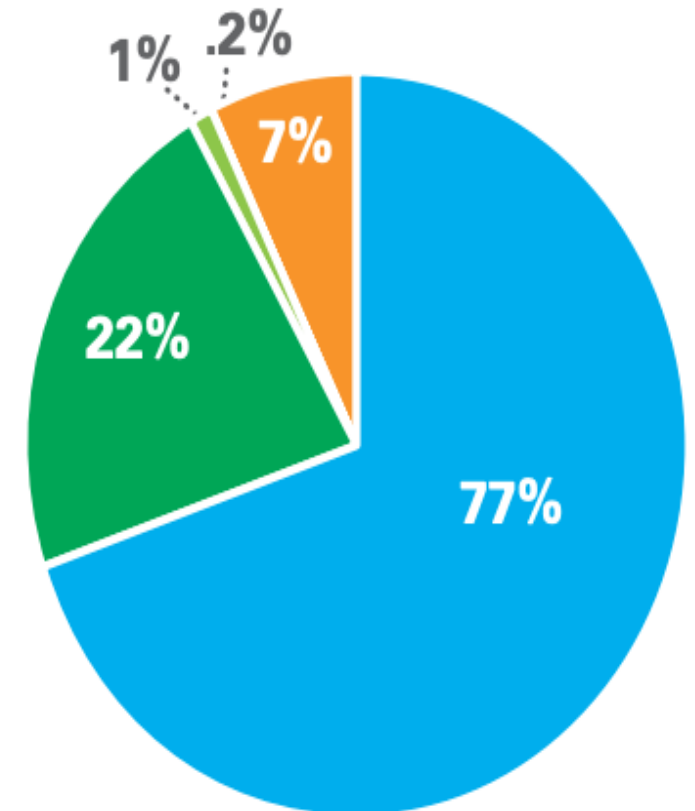
PRETERM BIRTH
COMPLICATIONS

Key Interventions to Address Intrapartum-related Deaths

Intrapartum
Related
Deaths

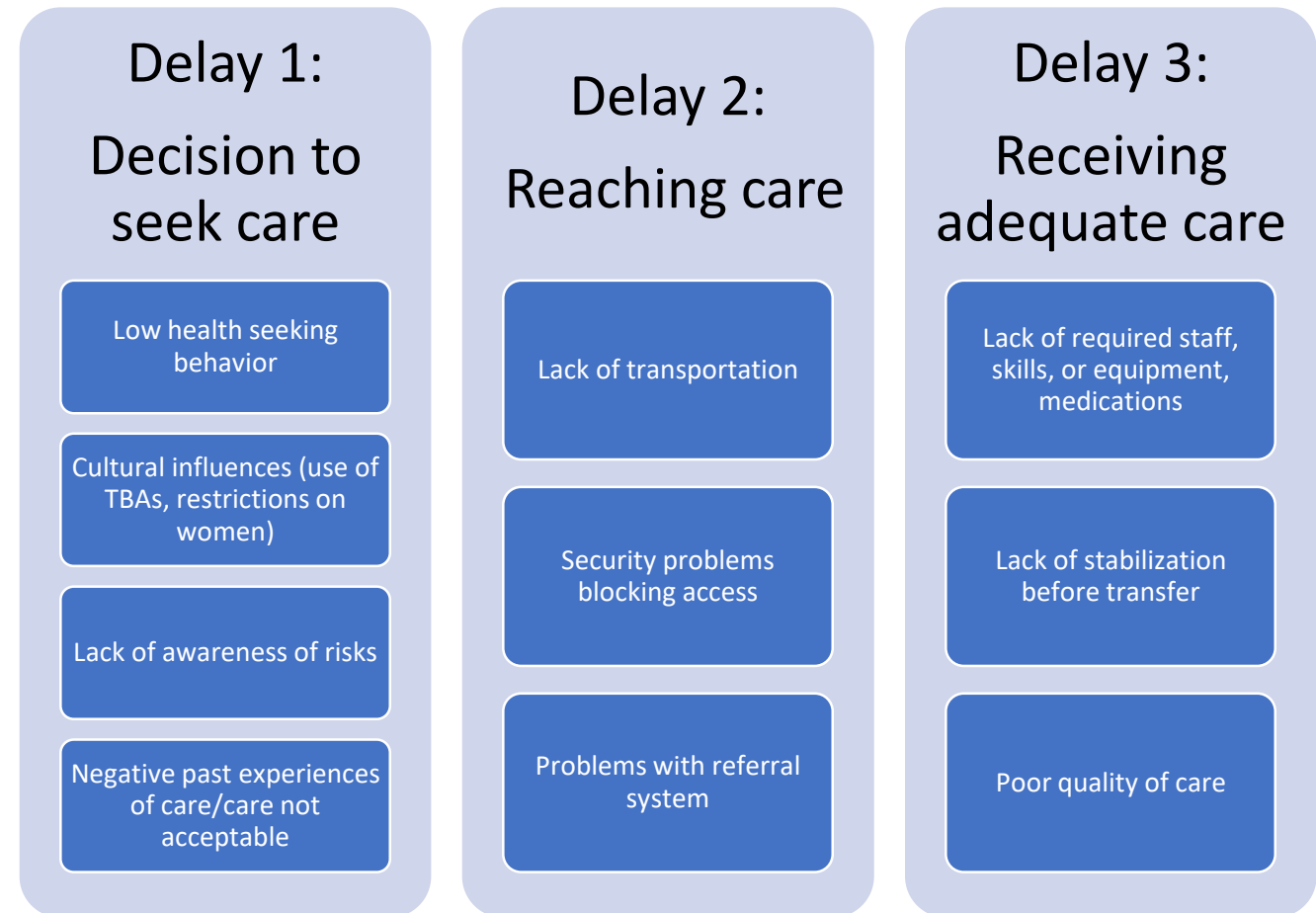
A Intrapartum-related neonatal deaths.

- Labour and delivery management
- Neonatal resuscitation
- Case management of intrapartum-related events
- Immediate assessment and stimulation
- Antenatal care interventions with effect on small for gestational age babies



Prevention: Management of labour and birth

- Almost 80% of neonatal deaths from intrapartum related events (asphyxia) can be prevented with proper obstetric care
- Essential Childbirth care including skilled birth attendant 24/7
- EmONC services plus well-functioning referral network (*venteuse)
- Analyze your 3 delays to remove bottlenecks to proper care



Are your health facilities ready to provide neonatal resuscitation?


- Approximately 10% of newborns will require some assistance to begin breathing at birth.
- A health provider skilled in basic neonatal resuscitation must be available for every birth
- Majority of staff NEVER trained: Cameroon (67%); Niger (55%) and Chad (67%)
- Average scores on OSCE (practical exercise) in resuscitation < 50% in all countries
- Only 50% of health facilities assessed in Cameroon had a newborn resuscitation bag and mask; 100%* in Niger; and only 35% in Chad


Incorrect/harmful practices



HEALTH FACILITY READINESS:

UNHCR Public Health Officers together with the implementing health partner should make an initial assessment of **health facility readiness** to provide neonatal resuscitation.

 Skilled personnel	Available: Yes/No
Health provider trained in neonatal resuscitation available at every birth?	
Formal neonatal resuscitation training conducted within the past year	
Percentage of health workers who have attended neonatal resuscitation course in the past year	
Regular refresher training plan in place	
Staff 'champion' in place to lead regular skills practice	
Training equipment (such as mannequins) available in each facility	

 Basic Neonatal Resuscitation Equipment	Available*: Yes/No
Neonatal resuscitation bag and mask with 2 sizes of mask – 0 (preterm) and 1	
Suction device (Penguin-style is preferable)	
Gloves	
Timer, clock or watch	
Stethoscope	
Sterile instrument to cut the cord	
Cord ties or clamps	
Towel or cloth (2) to dry and cover the newborn	
Heat source (such as radiant warmer) where electricity is available	
Dedicated space for resuscitation (with firm surface)	
Job aid: Poster with algorithm in delivery room	

*Ensure that equipment is available in delivery room and easily accessible, not locked in office or cupboard away from newborn care area. Ensure equipment is in working order and in hygienic condition.

Assess Readiness to provide Neonatal Resuscitation

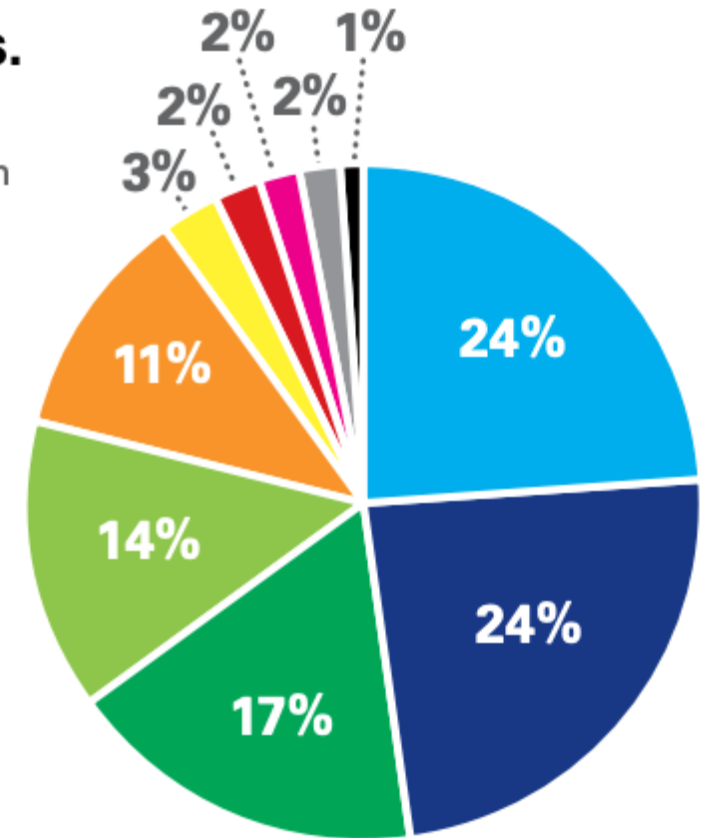
- Skilled personnel require regular training to keep skills up
- Consider *Helping Babies Breathe* course with weekly 'skills and drills'
- Basic equipment should be in place in the delivery room (and operating theatre – as a minimum)
- Equipment should be checked and ready to use for each birth.

Key Interventions to Reduce Infection Deaths

Infection
Related
Neonatal
Deaths

B Infection-related neonatal deaths. (sepsis, meningitis, pneumonia)

- Case management of severe neonatal infection
- Clean postnatal practices
- Clean birth practices
- Chlorhexidine
- Breastfeeding
- Balanced energy supplementation
- Micronutrient supplementation (multiple micronutrients plus iron folate)
- Syphilis detection and treatment
- Antibiotics for PPRM
- Intermittent preventive treatment in pregnancy



Preventing neonatal infection-related deaths



Ensure antenatal care includes screening for syphilis, HIV, and TT immunization

Check HIS data and review ANC register to check adherence



Assess knowledge of/train in newborn danger signs for both skilled health workers and community health workers

Be alert to vague, non-specific signs in newborns!

Increased RR as single sign of illness



Protocols in place for **hospital infection control** and handwashing promotion/campaigns?

Water point and soap/water in all wards and consultation rooms?



Standard antibiotic treatment protocols for maternal and neonatal infections available? (including drug dose calculations)

Where treatment in health facilities is not possible consider **community management** of PSBI (Possible Severe Bacterial Infection)



Consider whether use of chlorhexidine for umbilical cord care is relevant to your setting. Check national policy on CHX

Know local traditional cord care practices



Preterm births

Preterm birth complications was THE LEADING cause of death among children under 5 years in 2016. Many others are left disabled.

Preterm/premature is defined as a baby born alive before 37 completed weeks of pregnancy.

Low birth weight (<2500g) is a term that may apply to preterm babies as well as those who are not preterm but small for gestational age (SGA)

- Approximately 11% of all births are preterm (range between 5-18%). Rates are increasing globally.
- Majority of preterm births occur between 32 to <37 weeks and most in this age range can survive with simple care interventions.

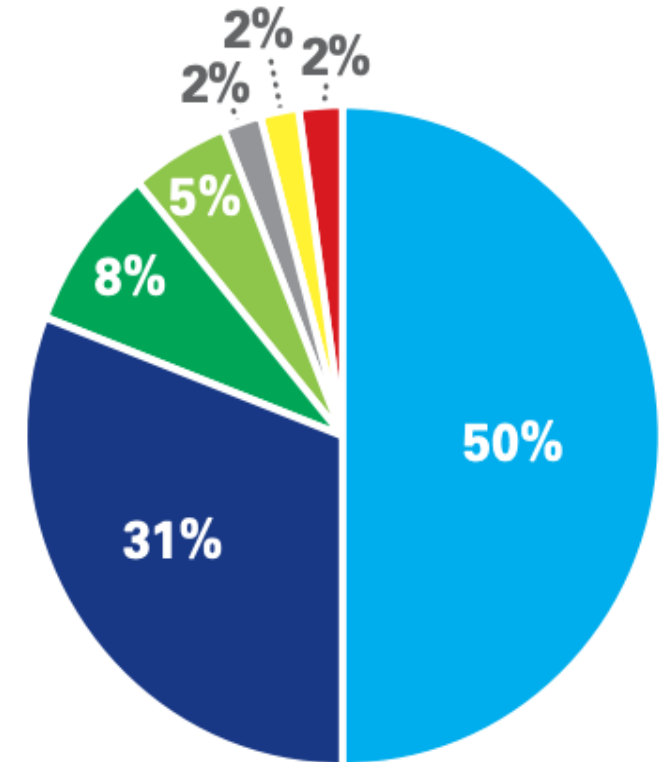
Key Interventions to Reduce Preterm-Related Deaths



C **Preterm-related direct complications.**

(mainly <32 weeks gestation)

- Hospital care of preterm babies including kangaroo mother care
- Antenatal steroids for preterm labour
- Neonatal resuscitation
- Labour and delivery management
- Antibiotics for PPROM
- Balanced energy supplementation
- Micronutrient supplementation (multiple micronutrients plus iron folate)



Source: Bhutta et al. Can available interventions end preventable deaths in mothers, newborn babies, and stillbirths, and at what cost? Lancet 2014, 384(9940):308.



Kangaroo Mother Care – Simple and Saves Lives!

- KMC is care of a preterm infant carried skin-to-skin with the mother. It includes continuous skin-to-skin contact between the mother and the baby; exclusive breastfeeding or feeding with expressed breast milk; and early discharge from hospital.
- KMC reduces mortality rates, infections, length of hospital stay **compared to incubator care**. Increases breastfeeding rates, bonding, satisfaction.
- KMC is estimated to **save 450,000 lives per year** if available to all
- It is very underused in refugee operations: in baseline assessment (Chad, Cameroon, Niger) it was found that 0% of health facilities had kangaroo wraps available; 0% with supportive clinical guidelines available; 0% protocols/policies; 0% dedicated beds.

What about incubators?

Potential Risks of Incubators

- X Incubator care is less effective than kangaroo mother care
- X Nosocomial infections ++ (incubating bacteria and insects if strict hygiene standards not maintained or if multiple babies are put in the incubator together)
- X Hyper and/or hypothermia
- X Frequent breakdowns. Needs continuous electricity
- X Reduced breastfeeding due to separation of baby and mother
- X Increased risk to newborn if newborn is left unattended in incubator without frequent observations

Minimum Conditions to Consider Incubator Use

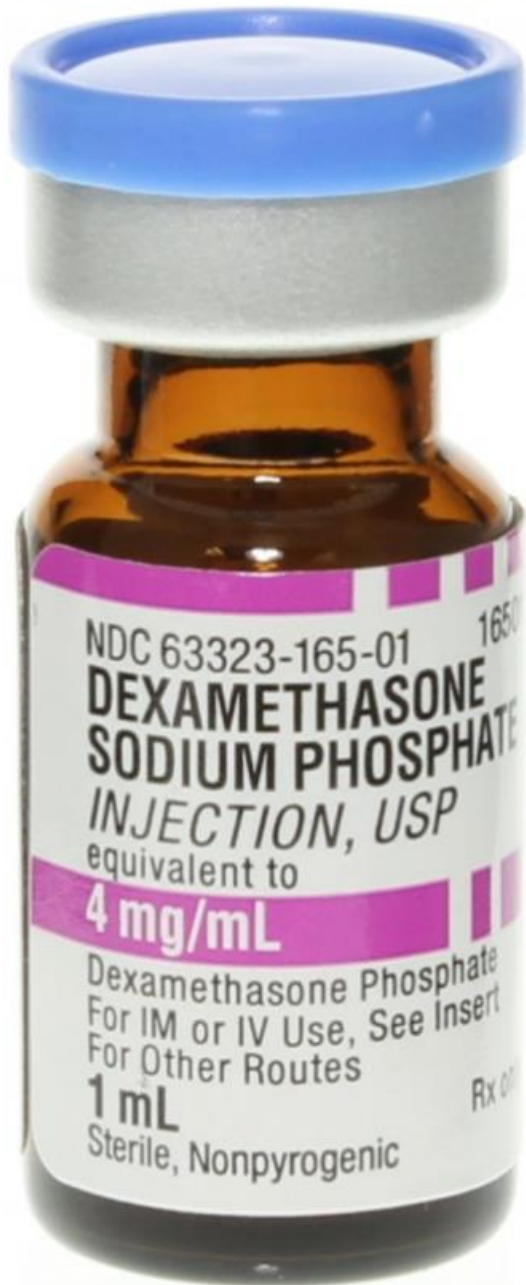
- ✓ Secondary-level health facility or higher
- ✓ Staff are well-trained in how to use incubator, including refresher trainings and trainings for new staff
- ✓ Dedicated staff is available to monitor newborns in incubators (newborns are not left frequently unattended). Regular vital signs/observations are taken and recorded
- ✓ Biomedical technician is available for maintenance and repairs
- ✓ Electricity supply is reliable without power cuts
- ✓ Very strong infection control procedures are in place and followed
- ✓ Mothers stay close by and assisted to BF or express



Implementing Kangaroo Mother Care

- Check if a national policy on newborn care exists, and if KMC is included in it. Connect with functioning units.
- Can be integrated at all levels of care. Discuss with primary and secondary providers: admission/discharge/referral criteria.
- Health workers need training (and convincing)
- Provide KMC wraps. Kangaroo wraps can be very simple – a long piece of local fabric; or specific designs can be ordered* and/or made locally
- Ensure protocols (admission/discharge, feeding, observations, etc.) clinical guidelines, and patient clinical records forms are in place

* Soon to be added to UNHCRs Essential Medicines List. See also <https://laerdalglobalhealth.com/products/careplus/>



Antenatal Corticosteroids (ACS)

- For threatened preterm birth (24-34 weeks), to speed surfactant development in fetal lungs and reduce respiratory distress syndrome (leading cause of preterm death)
- Antenatal corticosteroids (dexamethasone or betamethasone) are inexpensive and readily available (cost \$0.50-\$1).
- Equity divide: in high income countries, 90% of women in preterm labor receive ACS, but in low income countries coverage rates are estimated at 10%....

Assess your health facilities for readiness to provide care for preterm births

	KEY INTERVENTIONS	YES/NO
THREATENED PRETERM LABOUR	Determination of gestational age	
	Maternal antenatal corticosteroids (betamethasone or dexamethasone) for fetal lung development (24-34 weeks)	
	Antibiotics (for women with pre-term pre-labor rupture of membranes)	
	Magnesium sulfate for fetal neuroprotection (<32 weeks)	
	Tocolytic (nifedipine)	
	Transfer to higher level of care	
CASE MANAGEMENT: PRETERM NEWBORN	Kangaroo mother care for babies <2000g	
	B reastfeeding support, and expressed breast milk feeding (using nasogastric tube, spoon or cup)	
	Antibiotics and related supplies	
	Safe oxygen use (with protocols)	
	Advanced respiratory support CPAP; surfactant (secondary or tertiary levels)	
	Ensure stabilization of the newborn before transfer, particularly if the transfer will be long or difficult. Transfer in kangaroo position with mother whenever possible.	

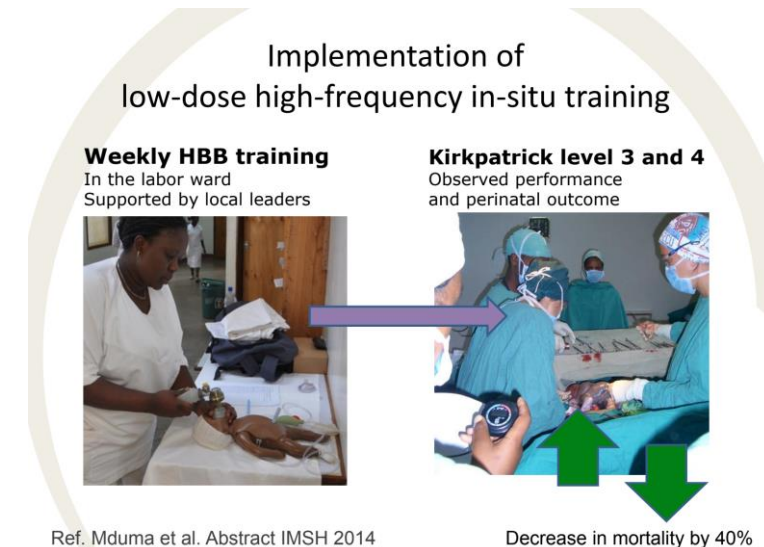
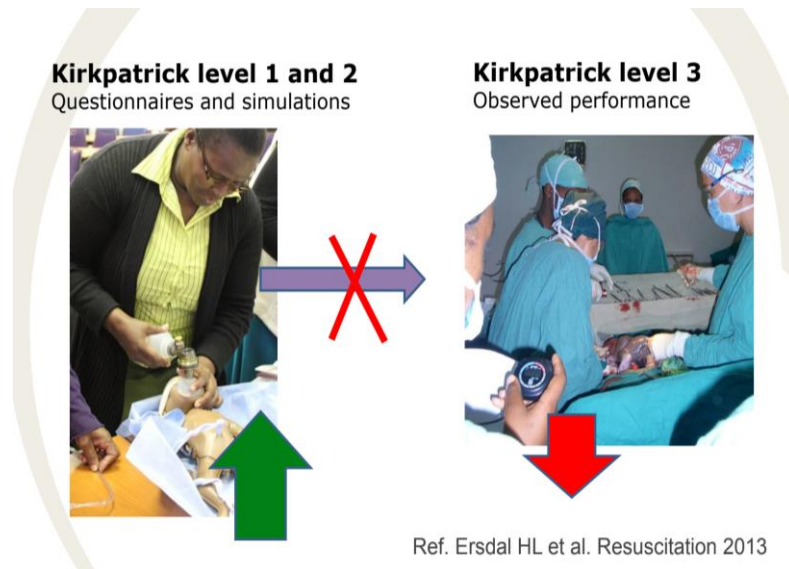
Discussion: Management of Premature Newborns

- Questions?
- Discussion:
 - In your setting, what are the main barriers to provision of antenatal corticosteroids?
 - Please share any success factors for implementing kangaroo mother care in your operations



Capacity Building of Health Care Workers

- Majority of medical staff never receive training in neonatal care
- Emergency skills tend to degrade quickly if not practiced regularly
- Frequent, short, in-house refresher trainings are required to maintain skills (Low Dose High Frequency). Classroom theory is less effective.
- Using Helping Mothers Survive and Helping Babies Survive packages (offering short courses followed by weekly exercises and drills)



Community-level interventions to improve newborn outcomes



In emergency phase, or where access to skilled birth attendance is poor, distribution of clean delivery kits (with education on proper use)



Ensure transportation from home to health facility for women in labour (main barrier to facility delivery)



In emergency phase, use multi-sectoral approach for IYCF. Ensure safe space for mothers/breastfeeding



Train CHWs to follow a **structured program** of home visits during pregnancy in the first week postnatal. Focus on health education, referrals, and identification of danger signs.



Use of participatory community groups (mother-to-mother, breastfeeding support groups, mens groups “École de maris”, etc.)

UNHCR's ESSENTIAL DRUGS AND EQUIPMENT LIST AND NEWBORN HEALTH

Condition	UNHCR Essential Drugs List
Essential newborn care	<input type="checkbox"/> Tetracycline eye ointment <input type="checkbox"/> Vitamin K <input type="checkbox"/> Chlorhexidine digluconate 7.1%
Threatened preterm labour	<input type="checkbox"/> Nifedipine <input type="checkbox"/> Betamethasone or Dexamethasone for fetal lung development <input type="checkbox"/> Magnesium sulfate <input type="checkbox"/> Antibiotics (erythromycin for preterm prelabour rupture of membranes)
Management of low-birth weight and preterm births	<input type="checkbox"/> Kangaroo mother care wraps (COMING SOON) <input type="checkbox"/> Nasogastric feeding tubes <input type="checkbox"/> Caffeine citrate (for apnea – secondary level or above) <input type="checkbox"/> Antibiotics <input type="checkbox"/> Glucometer <input type="checkbox"/> Warming table <input type="checkbox"/> Oxygen and supplies (nasal cannulae) <input type="checkbox"/> Pulse oximeter
Intra-partum complications (birth asphyxia)	<input type="checkbox"/> Neonatal bag and mask (with two sizes of mask – 0 and 1) <input type="checkbox"/> Oral/nasal suction device (Penguin) <input type="checkbox"/> Stethoscope <input type="checkbox"/> Venteuse/vacuum * UNFPA – pending on UNHCRs list
Potentially Serious Bacterial Infection	<input type="checkbox"/> Oral and parenteral antibiotics (amoxicillin, ampicillin, gentamycin, benzyl-penicillin, procaine benzylpenicillin, ceftriaxone etc.)
Neonatal jaundice	<input type="checkbox"/> Phototherapy lights <input type="checkbox"/> Bilirubinometer (*pending)
Other	<input type="checkbox"/> Local purchase - towel/cloth, baby clothes, hat

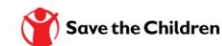
NEONATAL SUPPLIES IN THE EMERGENCY PHASE

- Clean delivery kits when facilities not functional/accessible (either local made or through RK kits)
- **Newborn Care Supply Kits** have been developed to complement the interagency RH kits
- Includes items such as blankets and hats; scales; chlorhexidine; KMC wraps; feeding cups for expressed breastmilk. Divided by level of care.



Newborn Health in Humanitarian Settings

FIELD GUIDE



<https://www.healthynetwork.org/resource/newborn-health-humanitarian-settings-field-guide/>

Monitoring Newborn Health



Analyse HIS data monthly. Know “expected” rates for key indicators. Be alert to both LOW and high results. Audit reports. Re-train front-line staff



Balanced Score Card ‘RH comprehensive module’ +/- supplementary checklists for neonatal care services/items



Make joint monitoring visits with UNHCR, MoH, implementing partner, UNFPA or UNICEF (if active)

Summary: Taking Action



Conduct a rapid assessment to check for readiness to provide essential newborn care, EmONC functions, neonatal resuscitation, preterm birth, and infection prevention and treatment. Identify gaps and take action. Familiarize yourself with national policy on key newborn interventions (or any Newborn Action Plan if exists)



Focus on improving/implementing the low-cost, high impact practices



Ensure health workers have access to up-to-date protocols and clinical guidelines, essential equipment and medications. Consider QUALITY OF CARE, not just availability of services .

Ensure an annual training plan for health workers that includes key neonatal topics



Encourage supportive supervision and day-to-day coaching in health facilities (by partner management)

Increase joint monitoring visits with PHO/health partner/MoH/UNFPA/UNICEF

Saving Newborn Life Project- Jordan

Case study

Newborn Health Webinar

Outline

- Gaps Identified
- Improvement activities undertaken, key partnerships/actors involved in activities
- Successes
- Challenges encountered
- Advice for other operations

Gaps

- Low cost, high impact interventions minimally applied
- Poor documentation and Health Education
- Lack of routine PNC checkups
- Trainings
- Key medications
- Use of Clinical Guidelines

Improvements and Partners

- Documentation and Monitoring
- Staying for 24 hours (Za'atari)
- Health Education
- Essential Medications and Equipment
- Charts, Check-lists,
- Posters and Leaflets
- IM antibiotics before referrals
- Partograph use
- Low cost, High Impact Interventions

Neonatal Examination Form and Checklist

Name of the Baby:						Date and Time of Delivery:						
1st check (At Birth)												
Date			Time			Pediatrician			Signature			
Delivery Mode	NVD \ Vacuum		Gest. Age	_____ Wk		Male \ Female	Apgar Score		At 1 min	At 5 min		
Perform skin to skin contact for thermal care						Y \ N		Resuscitation	Y \ N		Referral	Y \ N
Perform Delayed Cord Clamp for healthy breathing newborn						Y \ N		Administer 1 mg Vitamin K₁ within the 1 st hr. after birth				Time:
Be sure of cord clamping and no bleeding from umbilicus						Y \ N		Administer ophthalmic antibiotic ointment to all newborns				Y \ N
Keep the baby warm (baby towels, baby warmer, room temp)						Y \ N		Place two ID bands for newborn in case one slips off				Y \ N
2nd check (within 60-90 minutes)												
Date			Time			Pediatrician			Signature			
VITAL SIGNS Q 4 hours						PHYSICAL EXAMINATION						
	60 min	4 hr	8 hr	12 hr	16 hr	20 hr	24 hr	Head		Abdomen		
Resp. Rate								Fontanel		Umbilicus		
Temperature								Face		Hips		
O2 Sat.								Neck		Limbs		
Heart Rate								Eyes		Mental Alertness		
Check umbilicus, warmth, and respiration Q 15 min for the 1 st hour and Q 1 hr for the 1 st 6 hrs.								Mouth		Suck \ Swallow		
ANTHROPOMETRICS (can be taken anytime during length of stay)								Nose		Grasp		
Length	Screen for CCHD in Neonates who are discharged at 24 hours only to reduce false positive results.							Ears		Reflexes (<u>moro</u>)		
Head circum.								Spine		Genital & Anal patency		
Wt. in grams								Chest & Lungs		Heart & <u>Periph. pulses</u>		
3rd check (Prior to Discharge)												
Date			Time			Pediatrician			Signature			
Passed urine		Y \ N	Passed meconium			Y \ N	Early initiation of breastfeeding within the 1st hour				Y \ N	
Provide counseling on Importance of breastfeeding						Y \ N	Provide counseling on vaccination				Y \ N	
Provide appointment of PNC for newborn on day 3 & 7						Y \ N	Provide counseling on proper cord care and hygiene				Y \ N	
Provide counseling on danger signs (hypo \ hyperthermia, convulsions, not feeding jaundice, no movement, reddish \ swollen umbilicus.						Y \ N	Advice to avoid cultural harmful practices like <u>Kohol</u> in eyes, cigarette ash on umbilicus, salting the baby, garlic necklace.				Y \ N	
Check vital signs pre-discharge and recheck general physical examination											Y \ N	

Last Revised in March 2017.

Partners

- JHAS
- IMC
- UNFPA
- Affiliated hospitals
- Save the Children-Jordan
- IRD

Successes

- Capacity Building on Neonatal Resuscitation
 - Involving expertise within the National System
 - Development of training curriculum
 - ToT staff , 94 staff members trained
- CHV tool kit on maternal and child health
- policies in place
- Global Health Media Videos
- Neonatal and Stillbirth Audit Continued

Camps NNMR(/1,000 livebirths) 2015-2019



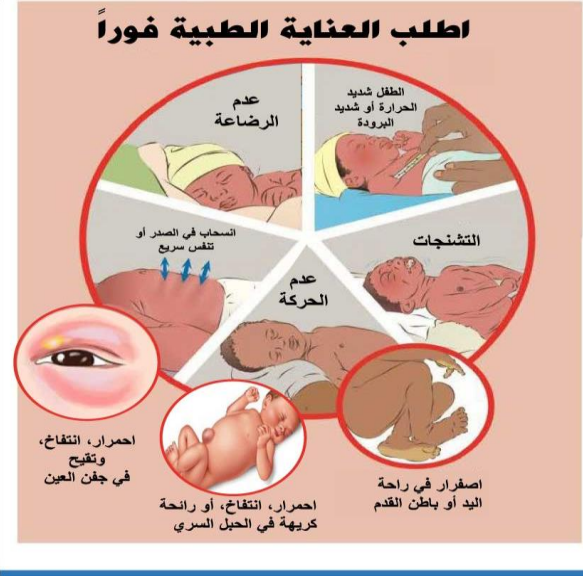
Challenges

- High Staff Turnover
- Control over affiliated hospitals/Military hospital
- KMC practice application
- Referrals
- Recommendations not possible to apply
- Drills and Mock trainings

Advice

- Baseline assessment
- EMOC, ENC, CHVs (hand in hand)
- Continuous supervision
- Putting policies in place

Questions



بطاقة الأم والطفل: ما بعد الولادة

توجهي فوراً إلى المرفق الصحي في حالة ظهور أي من علامات الخطر:

صعاب في الثدي	حمى شديدة في البطن	صعوبة في التنفس
تورمات تشنج	حصى أو أعراض الإصابة بالتهاب	تأريف مهبلي حاد
سرعة أو صعوبة في التنفس	تورمات تشنج	قلة الحركة أو التامعيا
ارتفاع الحرارة أو انخفاضها بشدة	تكون الجسم كله باللون الاصفر	التوقف عن الرضاعة الطبيعية بشكل جيد
احمرار حول السرة، أو العينين، أو ظهور طفح جلدي (بثور على البطن)		

اسم الطفل/الأمر:
تاريخ الميلاد:
محل الميلاد:

الزيارات المنزلية التي قام بها متخصص الصحة المجتمعية:
الزيارة الأولى تمت في يوم _____
الزيارة الثانية في يوم _____
الزيارة الثالثة في يوم _____

زيارات إعادة العيادة التالية للولادة:
 الزيارة الأولى بعد الولادة:
 الزيارة الثانية بعد الولادة:
 الزيارة الثالثة بعد الولادة:
 الزيارة الرابعة بعد الولادة:

وزن الطفل عند الولادة: _____
الوزن بالكيلو جرام:
ضع دائرة حول المنطقة المفضلة لوزن الطفل:
المنطقة الخضراء (2.5 كيلو جرام فأكثر)
المنطقة الصفراء (من 2 إلى 2.4 كيلو جرام)
المنطقة الحمراء (2 كيلو جرام فأقل)

في حالة ولادة توأم سجل بيانات الطفل الثاني أيضاً:
الوزن بالكيلو جرام: _____
ضع دائرة حول المنطقة: خضراء صفراء حمراء

زيارات المتابعة:
متابعة الطفل صغير الحجم: زيارة المتابعة الأولى في يوم: _____
زيارة المتابعة الثانية في يوم: _____
المتابعة بموجب إحالة طبية في يوم: _____

