WEBINAR: IMPROVING MATERNAL HEALTH IN REFUGEE OPERATIONS - PART 2

UNHCR

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Agenda

Overview and Rationale

Part 1:

Maternal Mortality Audits (Edna Moturi – epidemiologist Nairobi)

Part 2:

Addressing 4 leading causes of maternal mortality

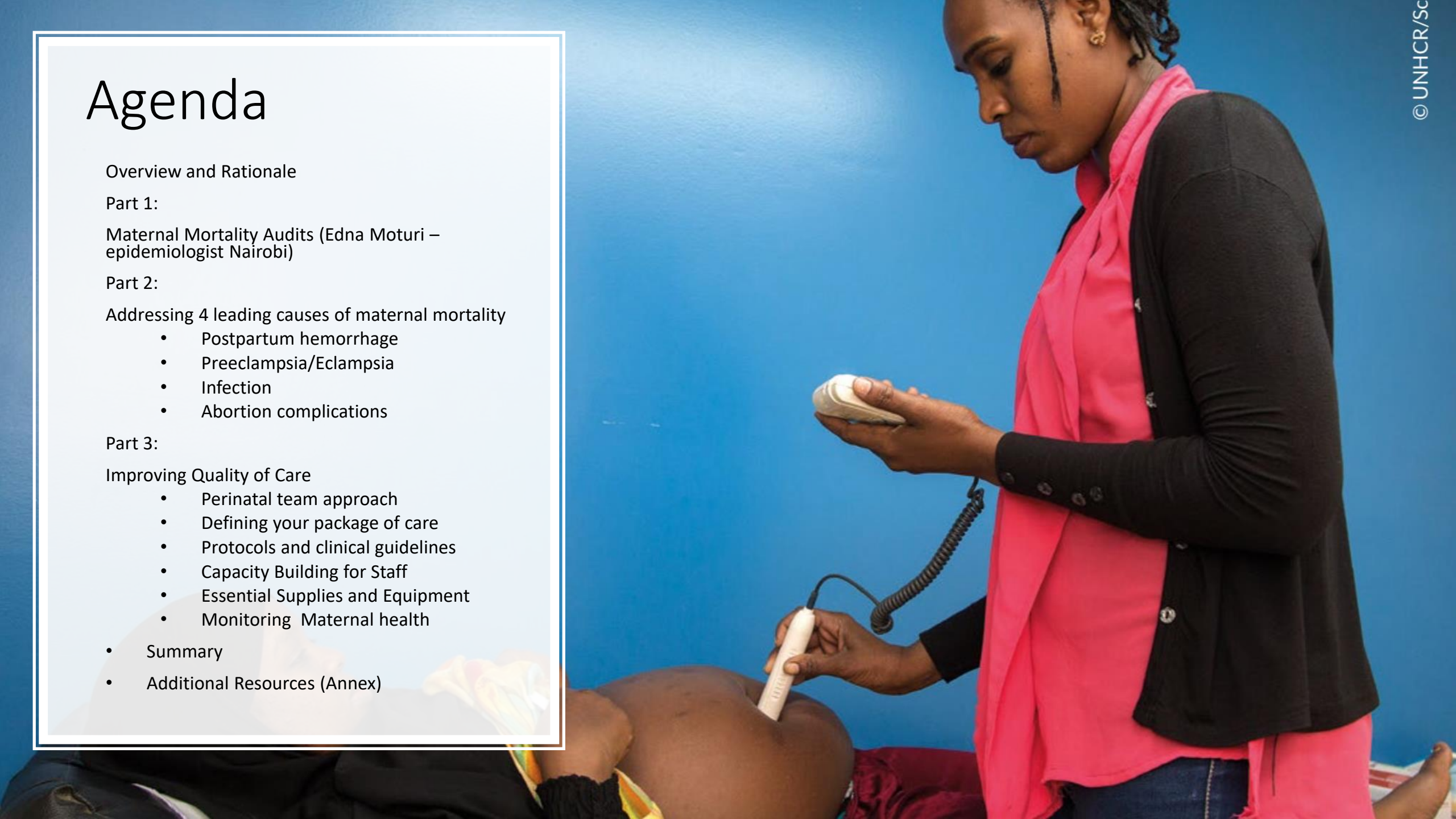
- Postpartum hemorrhage
- Preeclampsia/Eclampsia
- Infection
- Abortion complications

Part 3:

Improving Quality of Care

- Perinatal team approach
- Defining your package of care
- Protocols and clinical guidelines
- Capacity Building for Staff
- Essential Supplies and Equipment
- Monitoring Maternal health

- Summary
- Additional Resources (Annex)



OBJECTIVES of WEBINAR

TO UNDERSTAND THE MATERNAL MORTALITY AUDIT PROCESS AND RECENT RESULTS

TO REVIEW THE 4 LEADING CAUSES OF MATERNAL MORTALITY FROM MANAGEMENT PERSPECTIVE

TO CONSIDER HOW KEY QUALITY IMPROVEMENT STEPS CAN BE TAKEN IN YOUR OPERATIONS

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

- In 2017 over 300,000 women around the world died due to complications of pregnancy and childbirth.
- 90% of these deaths occurred in low- and middle-income countries, and almost two thirds of those were in sub-Saharan Africa
- Most of these deaths are preventable with appropriate management and care
- UNHCR's *Operational Guidelines for Improving Maternal Health in Refugee Operations* are being developed to provide direction to PHOs and partner program managers on key components of maternal health services
- Webinar series (Newborn Care, Maternal Health, and Contraception) to introduce and support the new operational guidelines

Webinar Part 1 (done in Sept 2019)

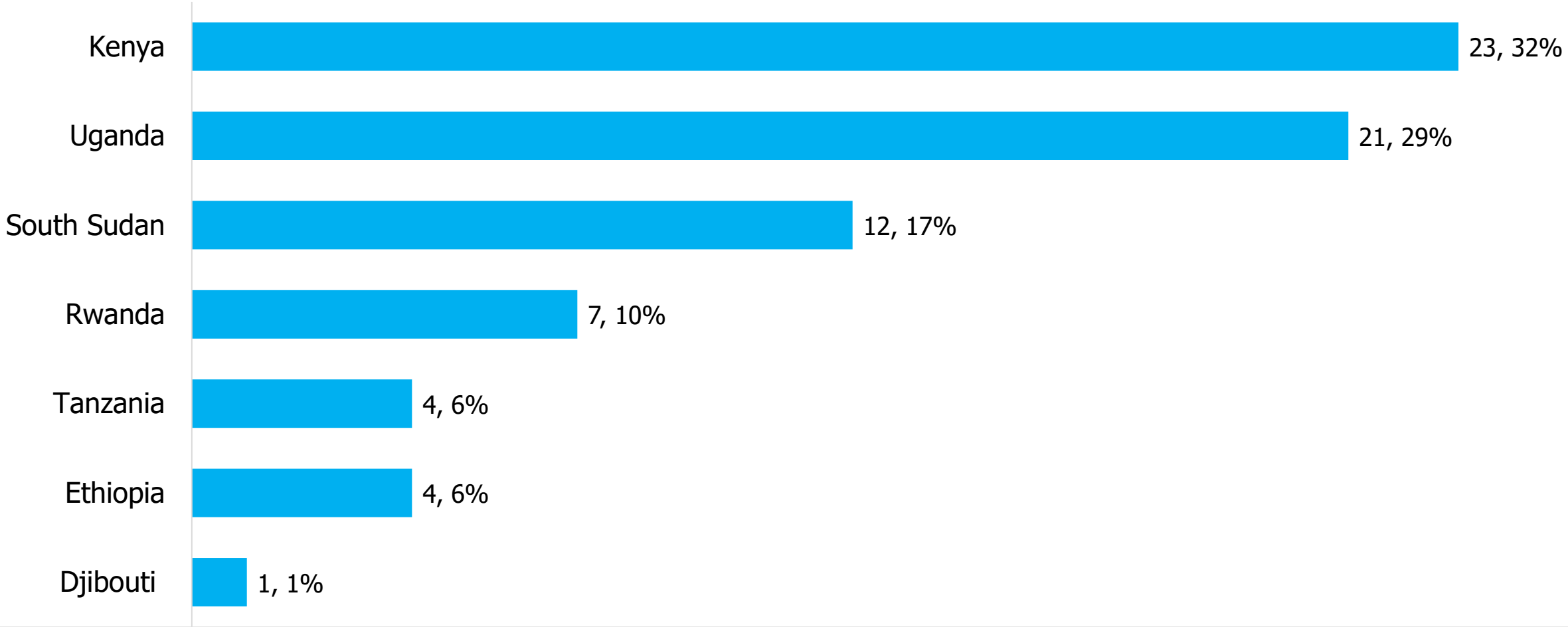
- Global epidemiology of maternal mortality
- Leading causes of maternal mortality and trends
- Implementing the MISP (Minimum Initial Services Package)
- Components of Comprehensive Maternal Health services (ANC, PNC, Essential childbirth and newborn care, EmONC functions)
- Monitoring EmONC
- Respectful maternity care

2018 Maternal Death Audit Review

East, Horn of Africa & Great Lakes Region

Dr Edna Moturi
UNHCR Regional Bureau, EHA & GL Region
Maternal Health Webinar, 2019

Maternal Death Audits (N=72)



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Country	No. Refugees & Asylum Seekers	No. Maternal deaths (HIS)	No. Maternal Death Audits	% Audits
Burundi	79,119	0	0	0%
Djibouti	29,934	0	1	0%
Ethiopia	905,831	4	4	100%
Tanzania	318,191	1	4	>100%
Rwanda	143,268	5	7	>100%
South Sudan	300,138	15	12	80%
Sudan	1.09M	1	0	0%
Uganda	1.26M	21	21	100%
Kenya	473,971	25	23	92%

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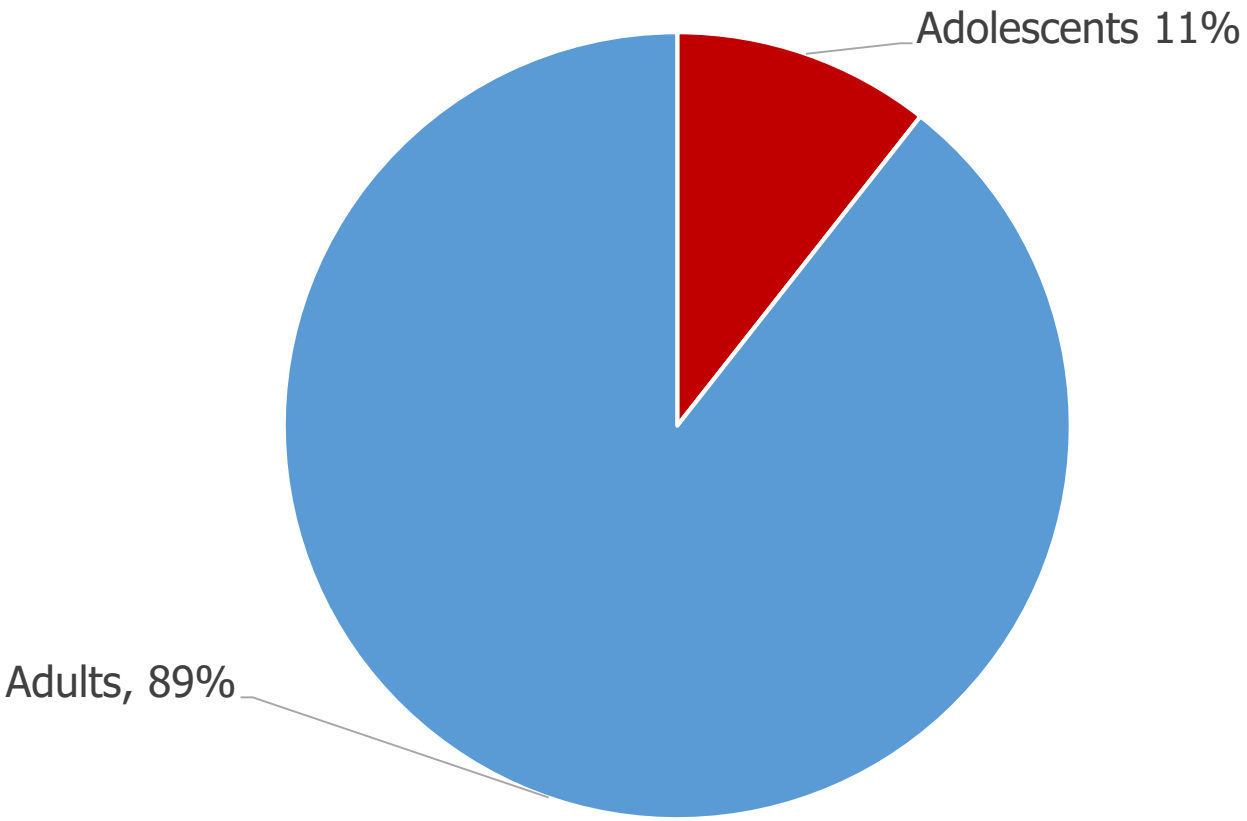
Maternal Demographics (N=66)



- Mean age = 27 yrs. (range: 15 to 42)
- Majority: 20 to 29 yrs.
- Only 7 adolescents

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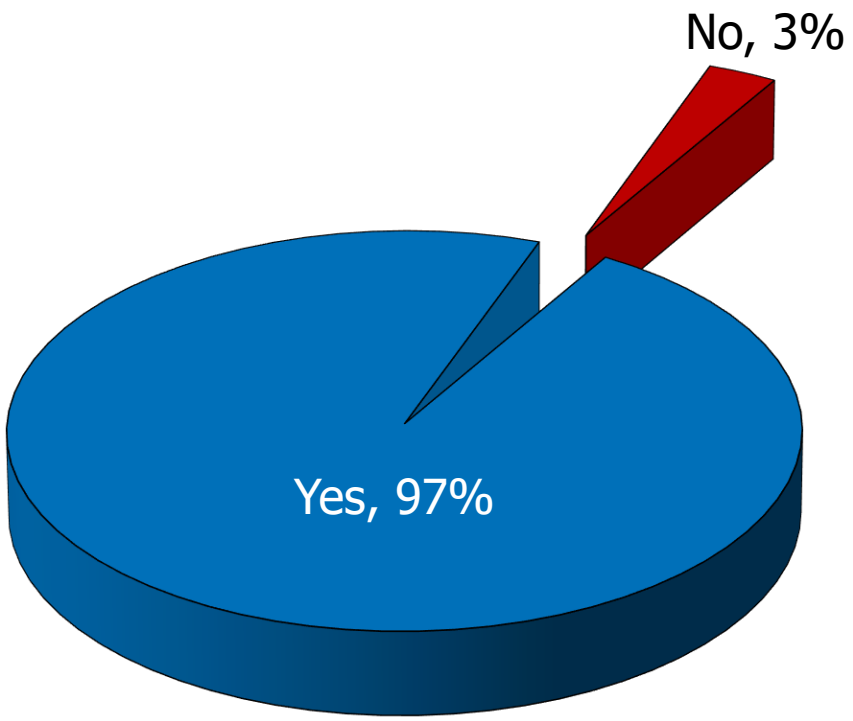
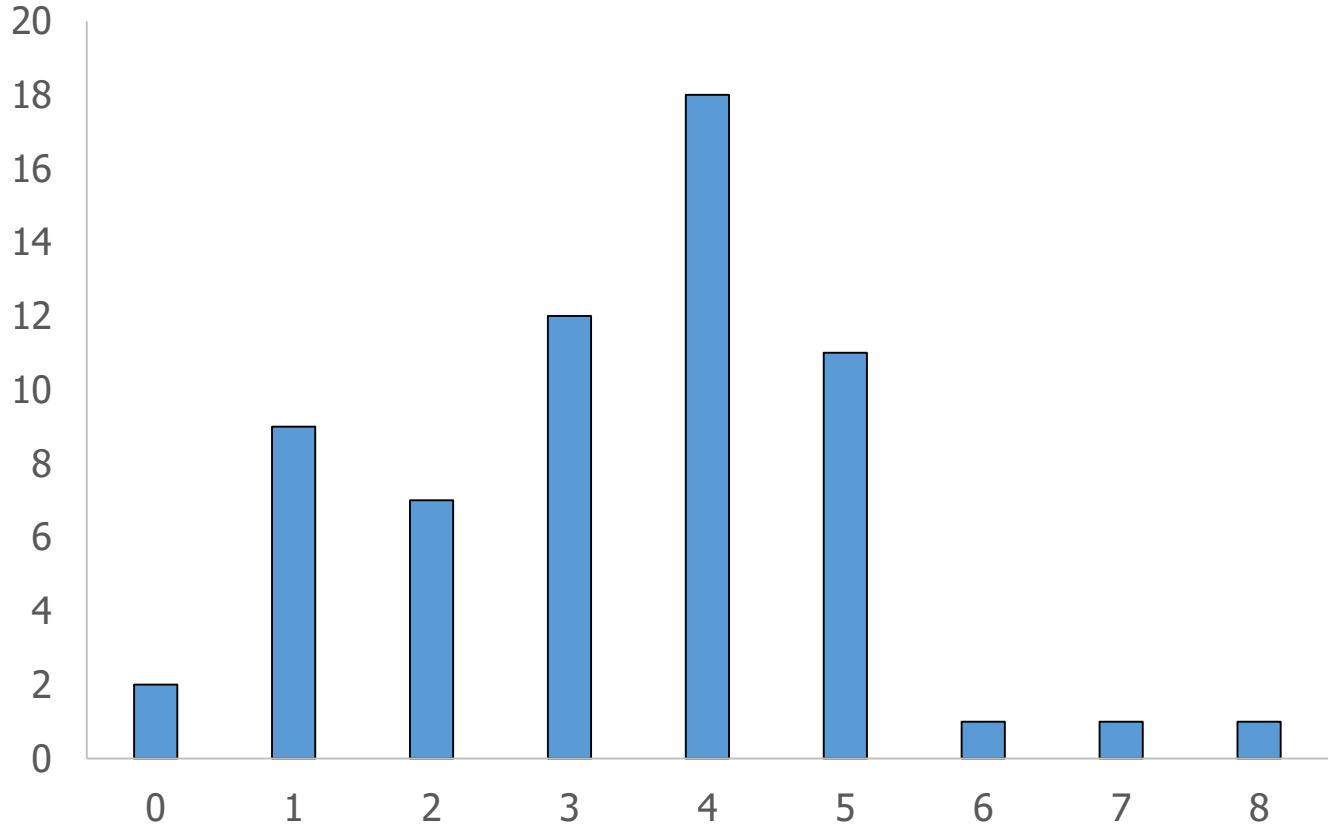
Parity (N=71)

- Median parity = 3 births (range: 0–13)
- 44 women had 1– 4 births (62%)
- 27 women were Grand multiparas (38%)

ANC Attendance (N=66)





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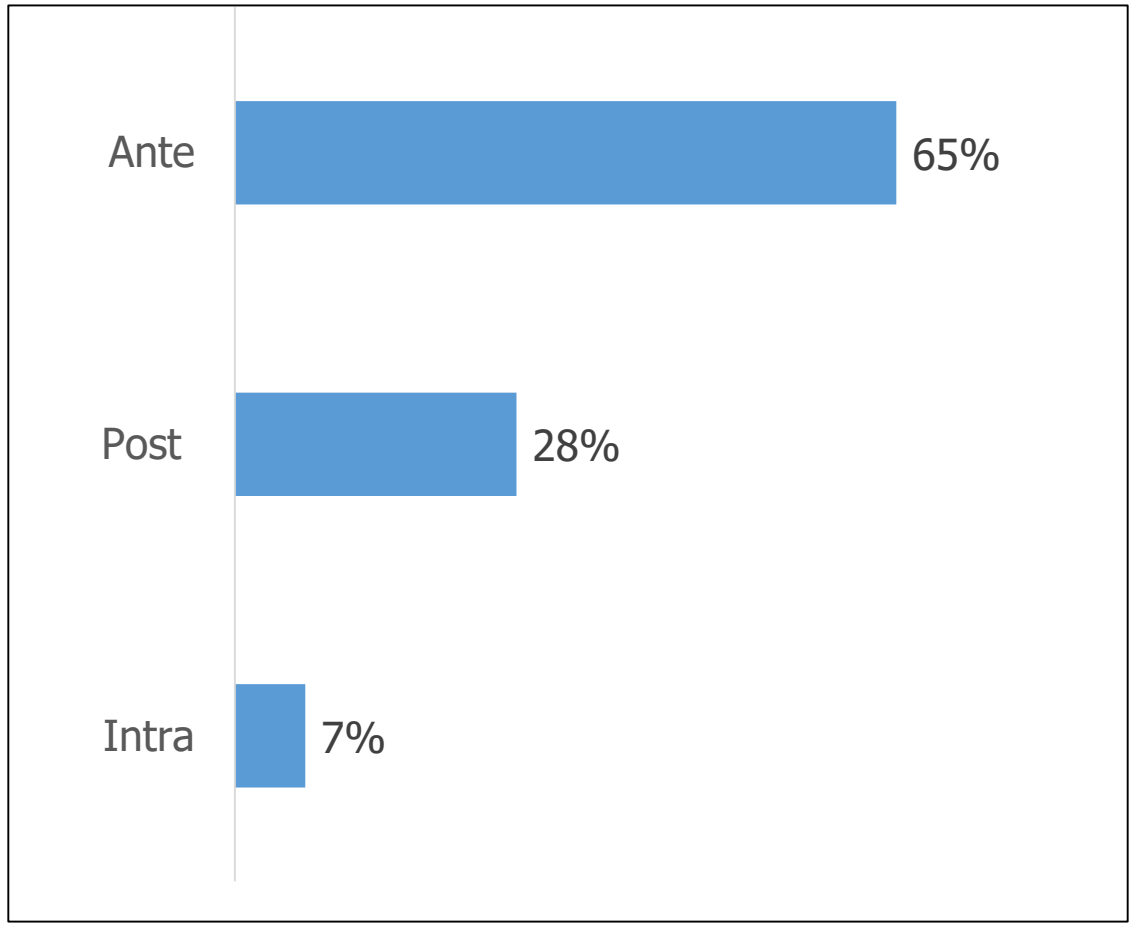
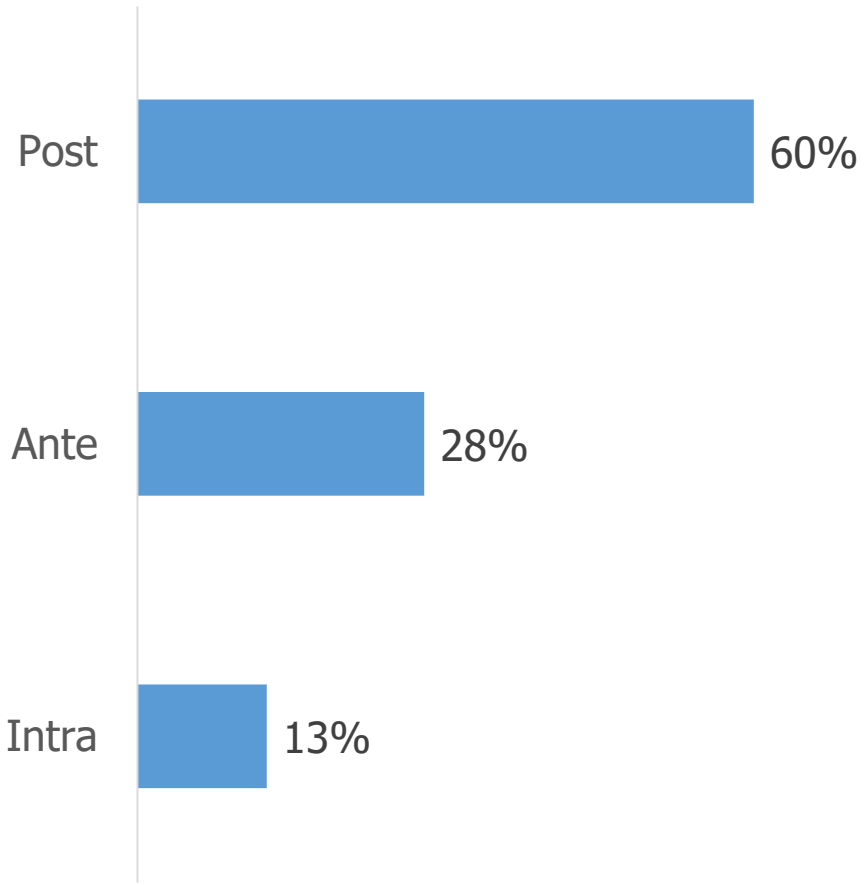
Stage of Pregnancy on Admission & Death





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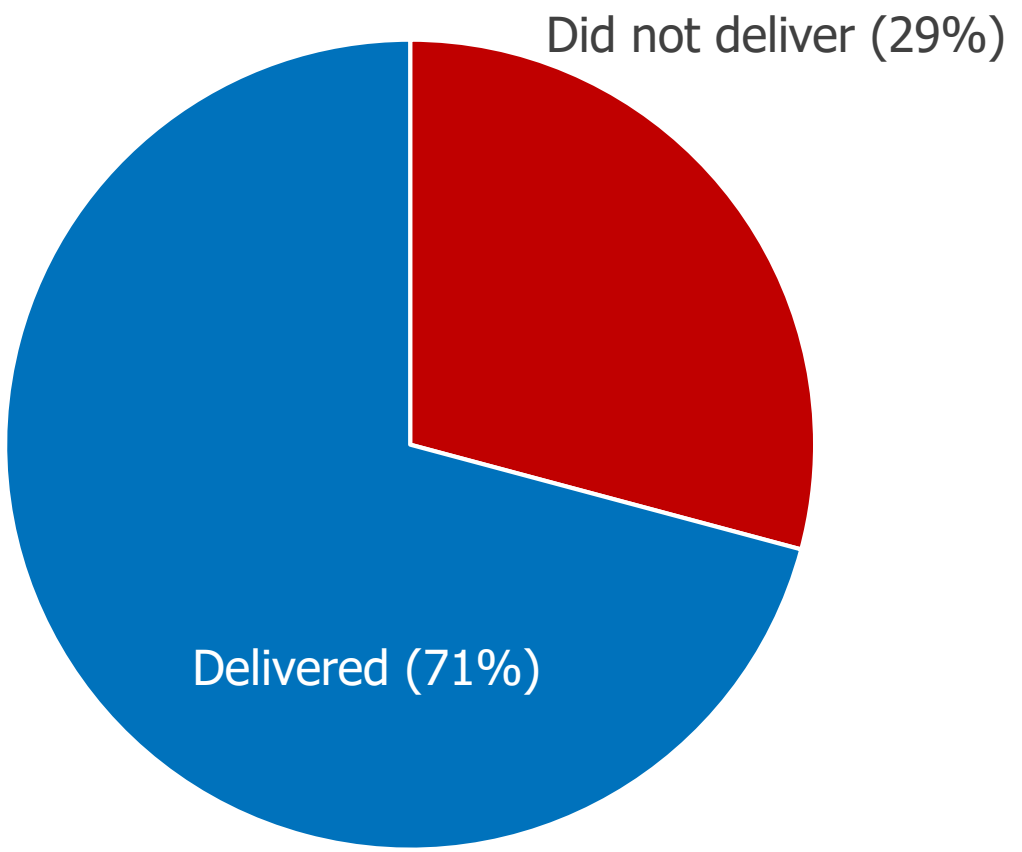
Delivery (N=51)



Type of Delivery

- 26 (51%) via C/S

Location of Delivery

- 49 (96%) at a health facility

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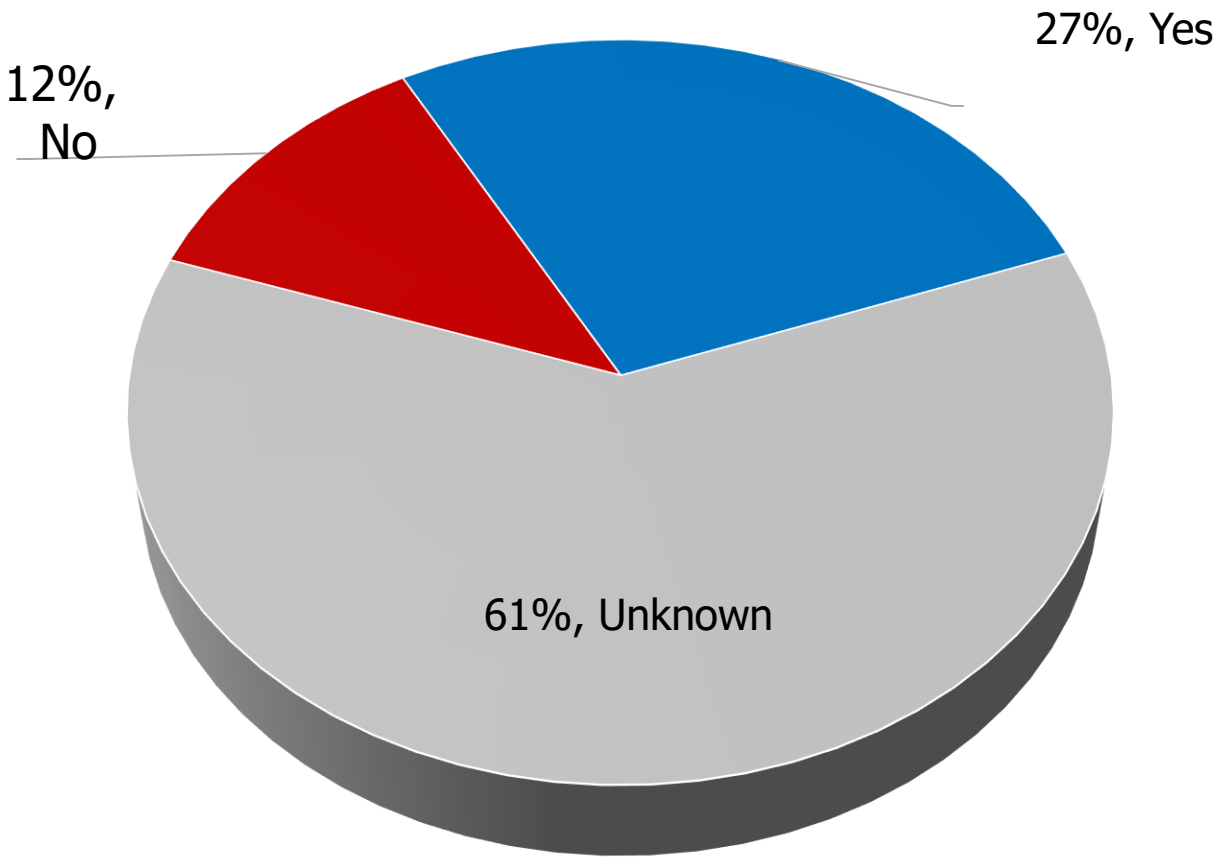
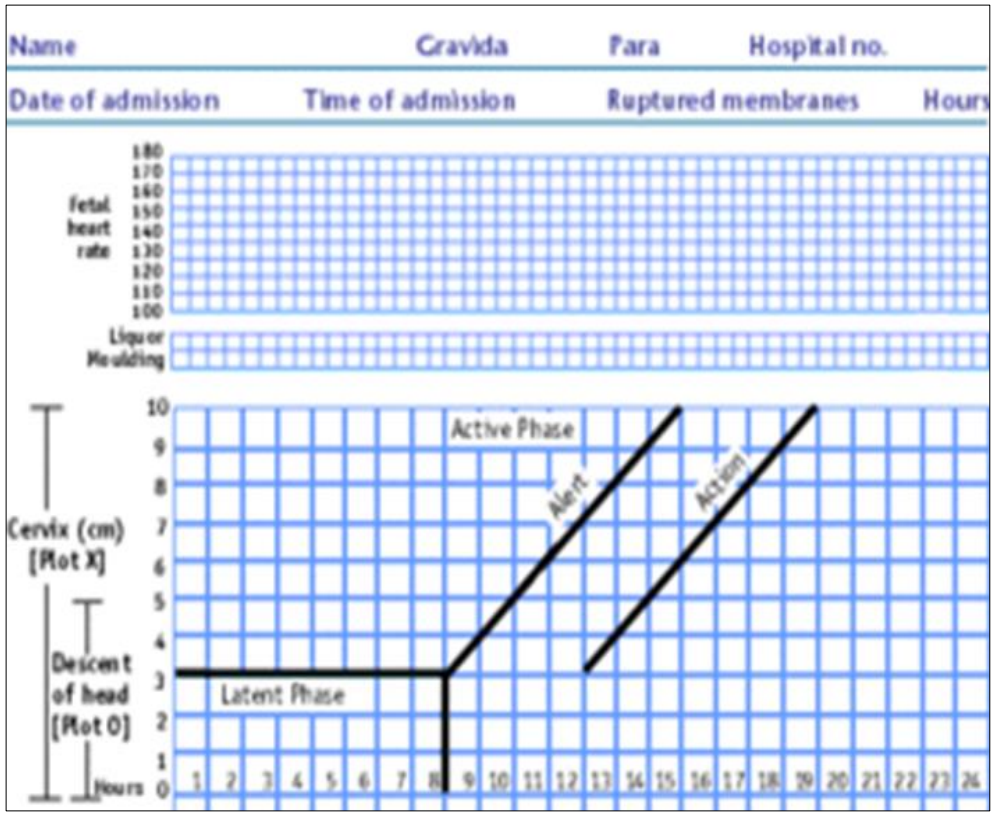
Partograph Usage (N=51)





Pregnancy Outcomes (N=51)

- Alive: 29
- FSB: 11
- MSB: 4
- Stillbirth: 2
- No Info: 5

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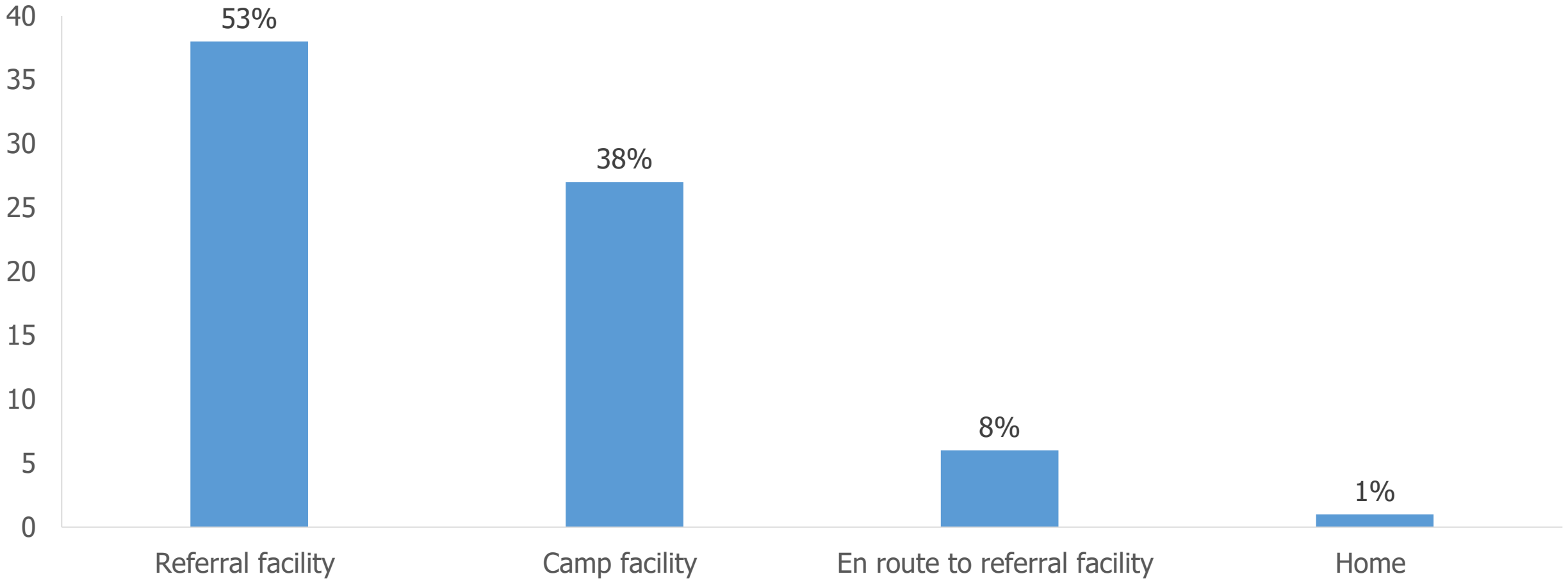
Location of Death (N=72)



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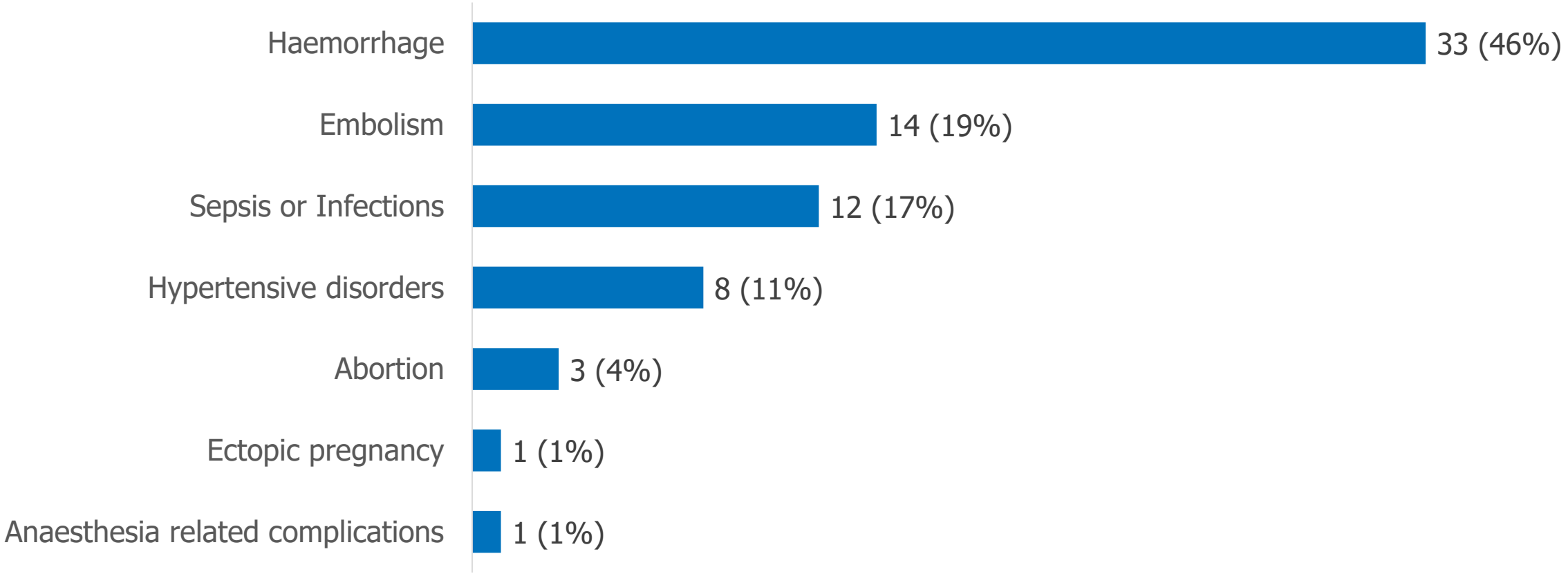
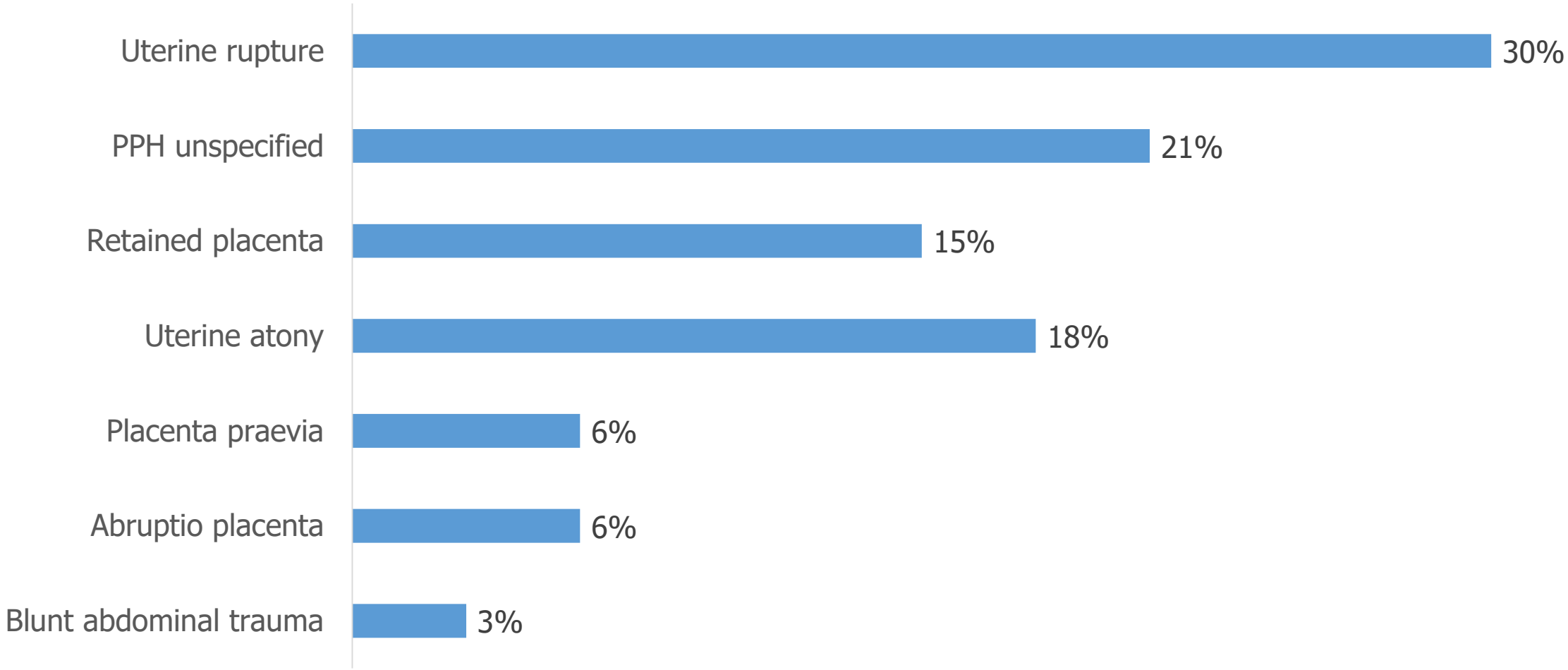
Direct Causes of Death (N=72)



Causes of Hemorrhage (N=33)



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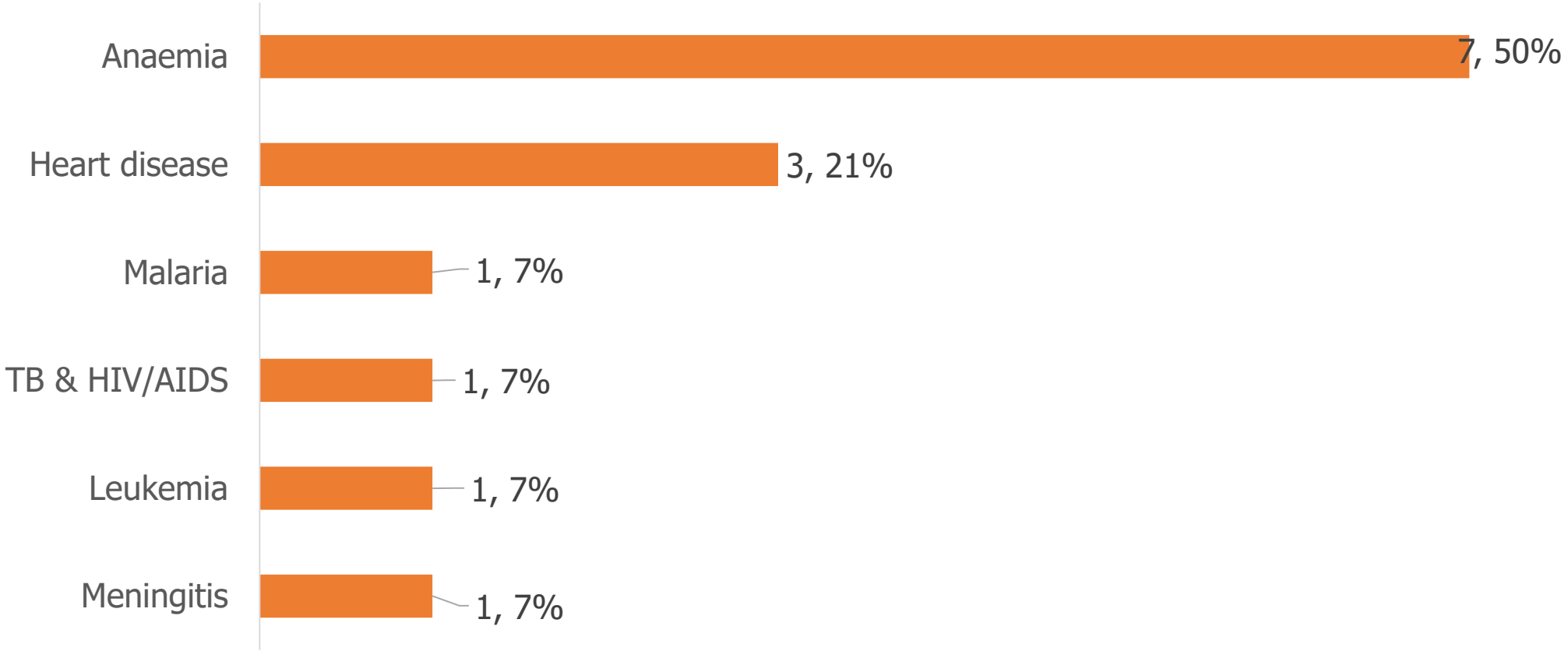
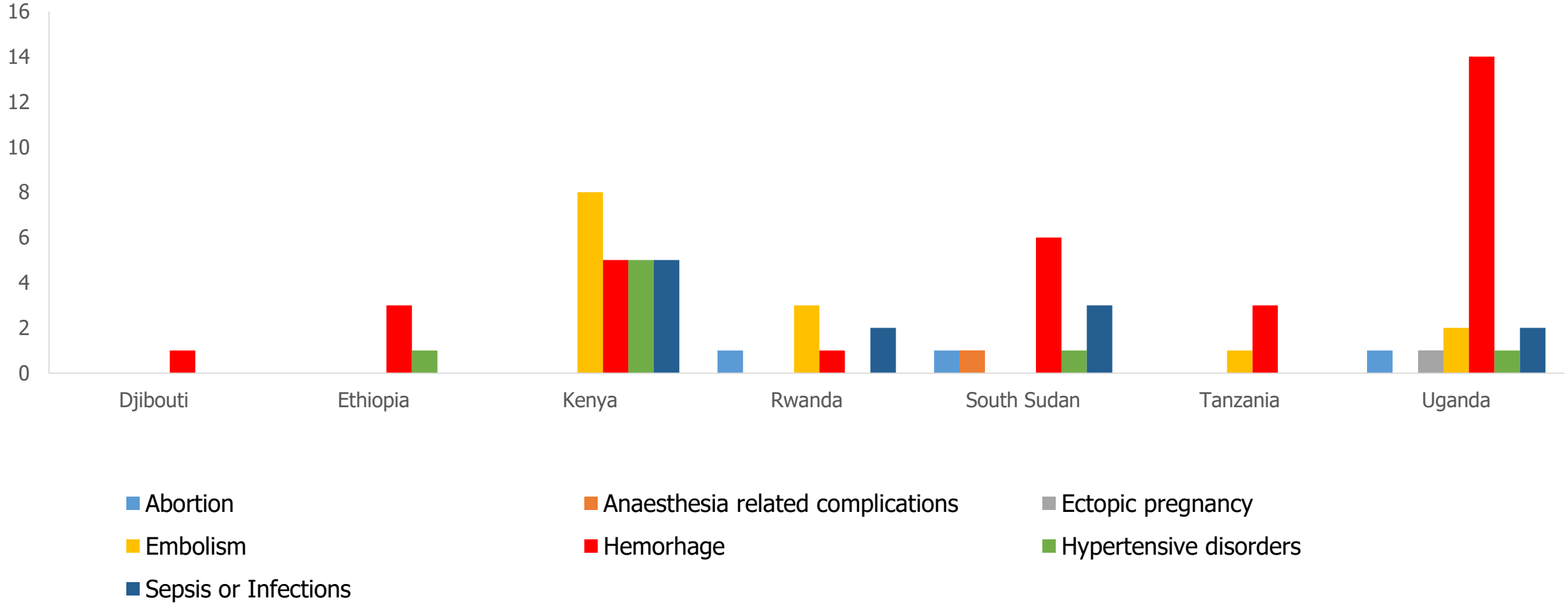
Indirect Causes of Death (N=72)



Direct Causes of Maternal Mortality per Operation



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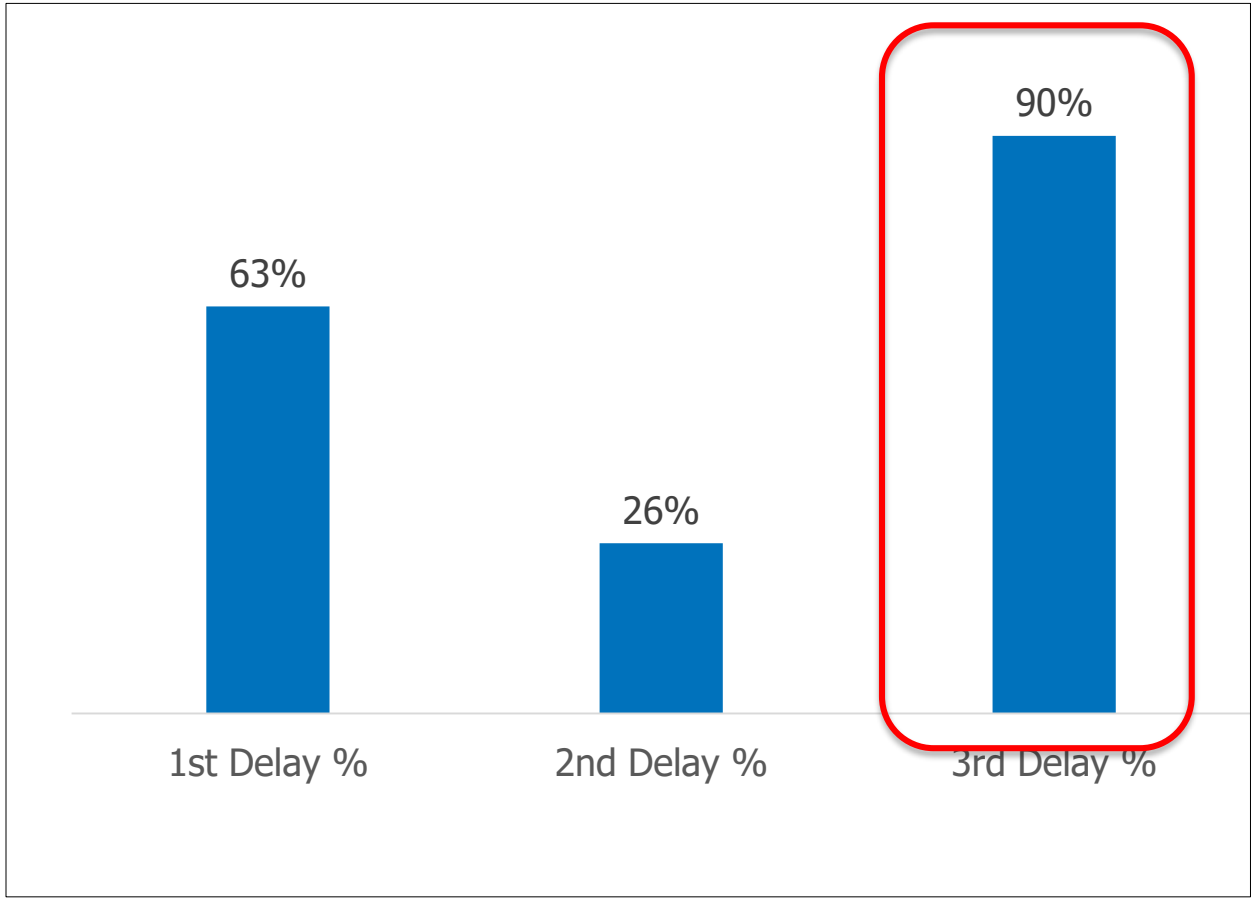
Delays in Care (N=68)

3 Delays:

1. Seeking care
2. Reaching care
3. Receiving adequate & appropriate treatment



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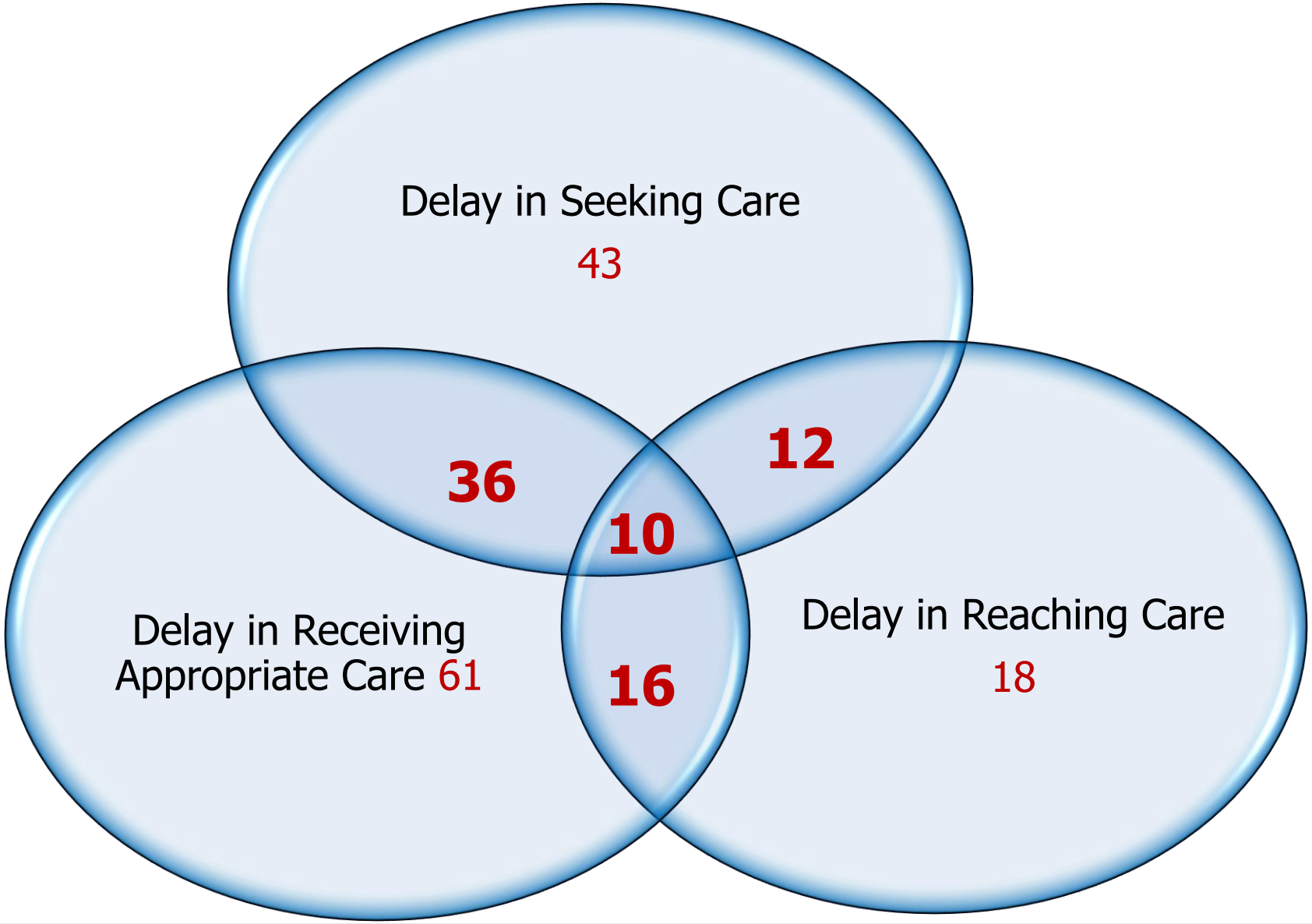

Delay in Seeking Care
43
36
12
10
Delay in Receiving Appropriate Care 61
16
Delay in Reaching Care
18

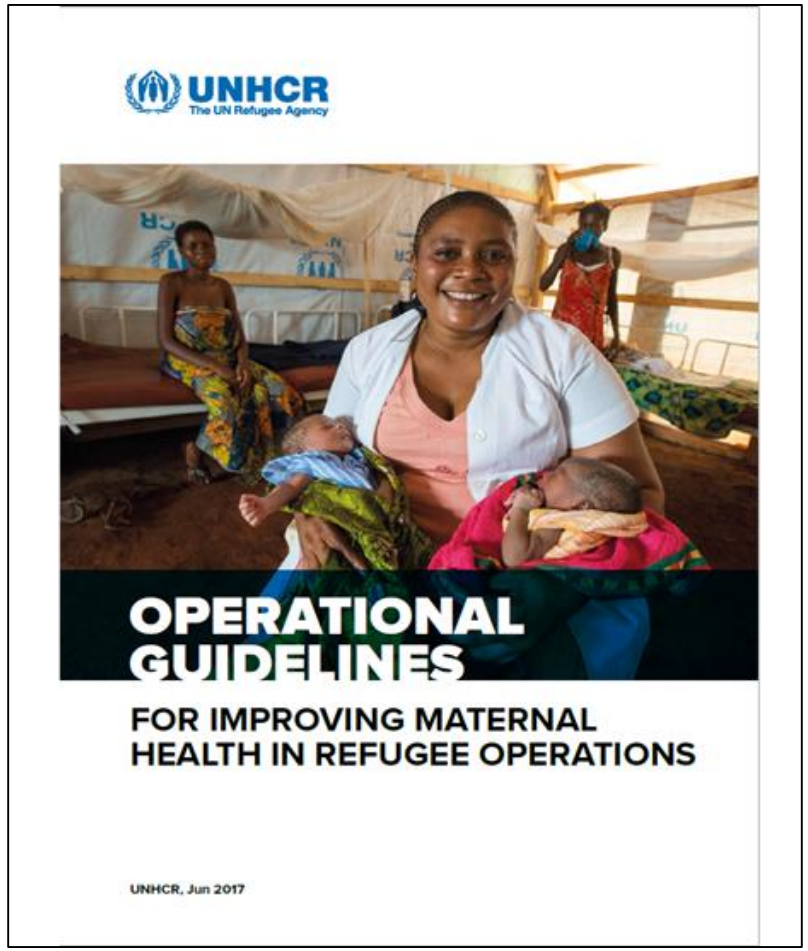
Conclusions & Recommendations

Conclusions

- Significant improvements in improving access to reproductive health services in refugee settings
- High proportion of 3rd delays indicates capacity gaps in provision of emergency obstetric care
- Poor quality health services will fail to achieve good clinical outcomes & reduce community confidence
- Critical that minimum EmONC services standards are maintained

Recommendations (1)

- Assess & ensure health facilities provide minimum EmONC services
- Strengthen referral linkages between camp and referral facilities
- Establish clear SOPs for managing obstetric cases & standardize care
- Plan for ongoing initiatives to improve capacities of health staff



Recommendations (2)

- Improve monitoring of pregnant women before, during & after birth
- Improve community outreach activities to increase awareness
- Regularly assess quality of ANC services
- Link facilities and CHWs and support identification & follow-up of pregnant women

Recommendations (3)

- Mandate review of all obstetric cases by experienced staff (midwives & doctors)
- Strengthen blood supply services
- Strengthen supply management systems to avoid stock outs
- Explore solutions to improve positive attitudes by health care workers

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Questions/Comments?

Addressing the 4 leading causes of maternal mortality

1. HEMORRHAGE
2. PREECLAMPSIA ECLAMPSIA
3. SEPSIS
4. UNSAFE ABORTION

Image © Jhpiego Bleeding after Birth

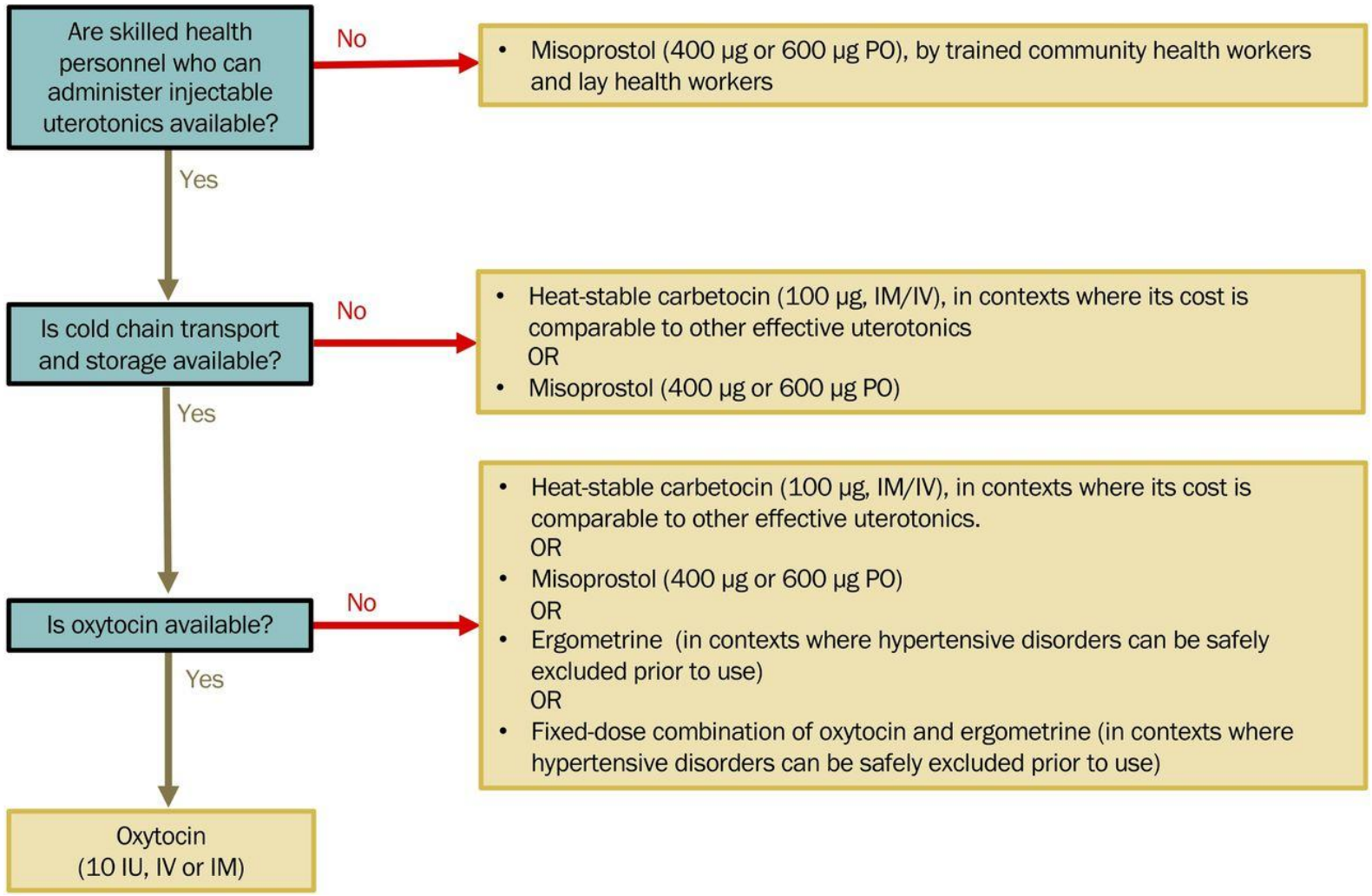
1. Postpartum Hemorrhage

- Leading cause of maternal mortality globally – nearly 25% of all maternal deaths
- 99% of PPH related deaths occur in developing world, 1% in developed countries
- Defined as blood loss >500ml within 24 hours (vaginal) or >1000 ml post caesarean
- Uterine atony most common cause, followed by trauma, retained tissue, bleeding disorders
- Most PPH occur within first 24 hours, but some cases are delayed
- Prevention: giving all women prophylactic uterotonic (AMTSL)

Uterotonic Choice for Prevention of PPH

WHO Recommended (2018):

- Oxytocin (gold standard; needs cold chain)
- Carbetocin (heat-stable; very expensive)
- Misoprostol (can be given by lay-persons; legal restrictions; side-effects; humidity)
- Ergometrine/
- methylergometrine (not heat stable; cannot use if hypertensive)
- Oxytocin and ergometrine fixed-dose combination (not heat stable; cannot use if hypertensive)



Joshua P Vogel et al. BMJ Glob Health 2019;4:e001466

Treatment of PPH

	Indication	Timing	Dosing
WHO 2012 TXA Recommendation	Use of TXA is recommended for the treatment of PPH **if oxytocin and other uterotonics fail to stop the bleeding or if it is thought that the bleeding may be partly due to trauma.**	For atonic uterus, use TXA **if oxytocin and other uterotonics fail to stop the bleeding.**	**IV (slowly): 1 g** **Repeat after 30 minutes if bleeding continues.**
WHO 2017 TXA Recommendation (updated)	Use TXA **in all cases of PPH, regardless of whether the bleeding is due to genital tract trauma or other causes.**	Use TXA **within 3 hours and as early as possible after onset of PPH. Do not initiate TXA more than 3 hours after birth,** unless being used for bleeding that restarts within 24 hours of completing the first dose (see dosing).	Fixed dose of **1 g in 10 mL (100 mg/mL) IV at 1 mL per minute (i.e., administered over 10 minutes)** **Second dose** of 1 g IV **if bleeding continues after 30 minutes or if bleeding restarts within 24 hours of completing the first dose**

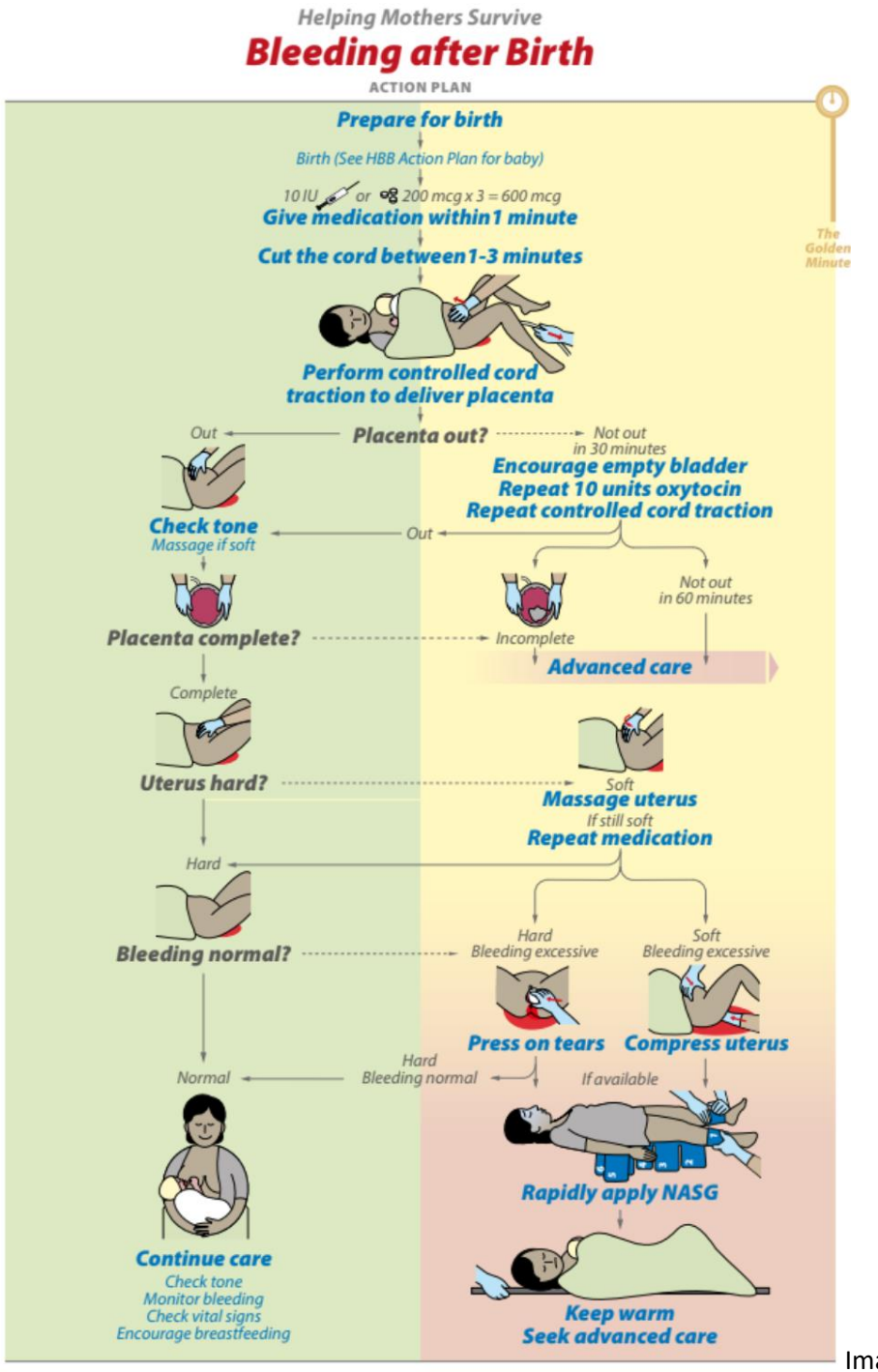
https://apps.who.int/iris/bitstream/handle/10665/259379/WHO-RHR-17.21-eng.pdf?sequence=1

PPH Treatment is dependent on cause:

- Uterotonics (oxytocin)
- Uterine massage
- Manual removal of placenta or retained tissue
- Repair of tears
- Uterine balloon tamponade
- Management of shock
- Blood transfusion/surgical management

Tranexamic Acid (TXA):

- A medication that reduces bleeding through inhibiting the breakdown of fibrinogen and fibrin clots
- Costly; requires clear instructions for use; limited time window (30min PP – 3hrs).
- TXA has a shelf-life of 3 years and can be stored at room temperature 15-30C
- May already be in use in health facility for trauma/surgery purposes
- WHO recommendations (2017) :Administration of TXA should be considered as part of the standard PPH treatment package to be used within 3 hours of PPH, in all cases, regardless of cause of bleeding, **in addition to standard obstetric management of PPH**
- **Check policy and availability in your settings (pending UNHCR EML)**



Ensuring Quality of Care for PPH

- ✓ Up-to-date guidelines on management of PPH
- ✓ Job aids/decision making tools (e.g. large posters) in delivery area
- ✓ 24/7 access to uterotonics in delivery room. Emergency box with all needed medication/equipment ready in delivery room
- ✓ Oxytocin kept in cold chain
- ✓ Preventative measures (AMTSL) taken with every delivery. Consider misoprostol where skilled attendance is low (home or health facility)
- ✓ Assess knowledge/skills of your staff
- ✓ Health workers have regular training in EmONC functions
- ✓ Emergency drills
- ✓ Avoid “dump and run” approach with referrals – stabilize before transfer
- ✓ Chart audits and supportive supervision
- ✓ Monitoring indicators: % of PPH; case fatality rates of PPH; % of deliveries receiving uterotonic prophylaxis as part of AMTSL

2. Pre-eclampsia and Eclampsia (PEE)

- Hypertensive disorders in pregnancy (HIP) are the second most common cause of maternal deaths worldwide: 10% of maternal deaths in Asia and Africa and 25% of deaths in Latin America
- Most serious HIP: pre-eclampsia and eclampsia and associated complications such as HELLP
- Preeclampsia/Eclampsia occurs after 20 weeks and can have very sudden onset.
- MgSO4 most effective drug for management of severe PE/E (in use since 1925)

Why do women still die? Barriers to Effective PEE Care

- Inconsistent policies/procedures and lack of clear, simple guidelines in health facilities
- Lack of medication (MgSO4)
- Referral to higher level of care without stabilization/first dose
- Lack of training of health care workers
- Confusion about drug administration (calculating drug dosages, IM or IV administration)

(Literature review: Pathfinder International/Salvador-Davila, 2014)

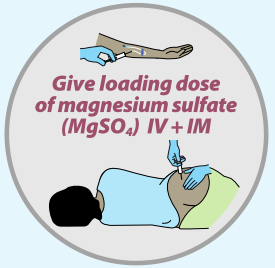
"There is huge confusion in the field about intravenous and intramuscular (IM) doses. Even medical doctors are unable to calculate the accurate doses for MgSO4." (physician, India)

$MgSO_4$ Dosing and Monitoring Checklist

PREPARATION OF 4g 20% SOLUTION OF MAGNESIUM SULFATE ($MgSO_4$)

- ☐ Wash hands thoroughly with soap and water or use alcohol hand rub and air dry.
- ☐ Using a 20-mL syringe, draw 12 mL of sterile water for injection.If 50% $MgSO_4$. is available, add 8 mL of $MgSO_4$ 50% solution* to 12 mL of water for injection to make 20 mL of 20% solution (4 g per 20 mL). If the concentration is different, correctly mix 4 gm of $MgSO_4$. ** vial containing (1 g/2 mL)*

ADMINISTRATION OF LOADING DOSE OF $MgSO_4$



- ☐ Establish an IV line using normal saline or Ringer's lactate solution.
- ☐ Using a 20 mL syringe, draw 4 g of $MgSO_4$ 50% (8 mL)
- ☐ Add 12 mL sterile water or saline to the same syringe to make a 20% solution
- ☐ Give this 4g $MgSO_4$ 20% solution IV over 5 – 20 minutes.
- ☐ Using two 20 mL syringes, draw 5 g of $MgSO_4$ 50% (10 mL) in EACH syringe.
- ☐ Add 1mL of 2% lignocaine to EACH of the two syringes.
- ☐ Inject 1st syringe by deep IM injection into one buttock (5g $MgSO_4$)
- ☐ Inject 2nd syringe by deep IM injection into the other buttock (5g $MgSO_4$)
- ☐ **If convulsions recur** after 15 minutes, give 2 g of $MgSO_4$ 20% by IV over 5 minutes.
- ☐ To Decontaminate: Flush needle and syringe with 0.5% chlorine solution three times; then place in a puncture-proof container.
- ☐ Remove gloves and discard them in a leakproof container or plastic bag.
- ☐ Wash hands thoroughly with soap and water.

MONITORING FOR SIGNS OF TOXICITY

- ☐ Count respiration rate for 1 minute every hour. The rate should be ≥ 16.
- ☐ Patella reflexes should be present. Check every hour:
  - Place one hand under woman's knee and lift leg off bed.
  - Tap patellar tendon just below kneecap with a reflex hammer.
- ☐ Insert an indwelling urinary catheter and measure urinary output hourly. Output should be ≥ 30ml/hour

ADMINISTRATION OF MAINTENANCE DOSE OF $MgSO_4$

- ☐ Before repeating administration of $MgSO_4$, check that:
  - Respiratory rate is at least 16 per minute.
  - Patellar reflexes are present.
  - Urinary output is at least 30 mL per hour over 4 hours.
- ☐ Give 5 grams of MgSO4 50% solution, together with 1 mL of 2% lignocaine in the same syringe, by deep IM injection into alternate buttocks (every 4 hours).
- ☐ WITHHOLD or DELAY drug if:
  - Respiratory rate falls below 16 per minute.
  - Patellar reflexes are absent.
  - Urinary output has fallen below 30 mL per hour over the preceding 4 hours.
- ☐ In case of respiratory arrest:
  - **Shout for help!**
  - Assist ventilation with mask and bag.
  - Give calcium gluconate 1 g (10 mL of 10% solution) IV slowly.

Ensuring Quality of Care for PEE

- ✓ Ensure clear clinical guidelines are in place as well as other job aids (drug dosage charts, observations sheets)
- ✓ Avoid stockouts of MgSO4 and its antidote calcium gluconate (to be kept together).
- ✓ Emergency box with all needed medication/equipment ready in delivery room
- ✓ **Do not assume** that staff are knowledgeable managing PEE or administering MgSO4 dosages
- ✓ Regular refresher training and hands-on practice "skills and drills" is needed for all staff
- ✓ Review cases and chart audits, including for pre-transfer stabilization. Check charts for routine blood pressure monitoring (ANC, partograph, PNC)
- ✓ Monitoring indicators: % of OB complications that are PEE; case fatality rates of PEE; % of facilities with MgSO4 in stock

Job aids/training materials available:

Helping Mothers Survive https://hms.jhpiego.org/training-materials/

3. Peripartum Infections/Sepsis

- Infection causes of 10% of maternal deaths worldwide
- **Hospital-acquired infection** is a leading cause of death of pregnant women and newborns
- 22% of deaths following caesarean sections in low and middle income countries are due to sepsis
- Poor hand hygiene, incorrect sterilization of instruments, unclean surfaces, too frequent vaginal exams contribute
- Prevention is key – and being on high alert for symptoms in both mother and newborn (which may be non-specific)

Recommendations for prevention of peripartum infections

NOT RECOMMENDED

- Perineal shaving
- Digital vaginal exam > q4 hours
- Vaginal cleaning with chlorhexidine
- Antibiotics for preterm labour (when membranes intact)
- Routine antibiotic prophylaxis
- Antibiotics for meconium stained fluid
- Antibiotics for episiotomy

RECOMMENDED

Antibiotics for:

- preterm (<37 weeks) prelabour rupture of membranes
- 3rd or 4th degree tears
- Manual removal of the placenta
- Caesarean section (prior to incision)
- Prolonged rupture of membranes >18 hours (uncertain evidence)

WHO recommendations for the prevention and treatment of peripartum infections 2015
https://apps.who.int/iris/bitstream/handle/10665/186171/9789241549363_eng.pdf?sequence=1

Ensuring Quality of Care for Peripartum Infection Prevention and Control

Written policy on the **appropriate use of antibiotics in childbirth** available and known to health workers

Monitor antibiotic use for maternity cases

Ensure the 'six cleans' of delivery including clean hands, clean perineum, clean delivery surface, clean cord cut, clean cord ties and clean cord stump care for every delivery.

Protocols in place for hospital infection prevention/control and handwashing promotion/campaign

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

Distribute **clean delivery kits** where health facility delivery not available

Monitor/quantify all perinatal infection cases (maternal or neonatal) including post-caesarean

Ensure vital signs are monitored regularly during ANC, childbirth and postnatal period to identify danger signs early (maternal and newborn)

- An estimated 25% of pregnancies worldwide end in induced abortion, half of them are considered ”unsafe”
- 97% of abortions in Africa are unsafe
- Between 5-13% of maternal deaths are due to unsafe abortion

4. Preventing mortality from unsafe abortion

Three main axes of work are involved in the prevention of mortality from unsafe abortion:

1. Clinical management of post-abortion complications
   - obstetric emergencies such as infection, hemorrhage, injury
2. Preventing unsafe abortion
   - Community sensitization on risks of unsafe abortion
   - Access to safe abortion according to local laws
3. Preventing unwanted pregnancy
   - Sexuality education (in partnership with education sector)
   - Increase use of contraception (particularly for adolescent and unmarried) including post-abortion contraception counselling
   - Adolescent friendly health services, community outreach (peer educators)

Health service provision: preventing mortality

- Post abortion complications are **obstetric emergencies**, post-abortion care has no legal restrictions in any country
- Two **methods** are available for the management of post abortion complications and for termination of pregnancy (ToP):
  - **Vacuum aspiration** is the recommended surgical method in 1st trimester, and has widely replaced the use of dilation and curettage.
  - **Medication based method** uses mifepristone and/or misoprostol, with protocols dependent upon gestational age.
- Comprehensive abortion care (safe abortion and post-abortion care) services should be integrated into primary health services; most can be provided in outpatient setting; and by **well-trained** midwives or other auxiliary health staff
- **Clinical guidelines and protocols** should be available in all facilities and staff should be familiar with their content.
- Regular training is necessary, including ensuring staff are aware of local legal context, human rights principles, etc.
- Community perceptions and practices around ToP are very important to understand

Resources:
WHO (2019) Health worker roles in providing abortion care and post-abortion contraception (recommendations on task-shifting):
https://srhr.org/safeabortion/

WHO (2018). Medical management of abortion:
https://www.who.int/reproductivehealth/publications/medical-management-abortion/en/

WHO (2012) Safe abortion: technical and policy guidance for health systems. 2nd edition:
https://www.who.int/reproductivehealth/publications/unsafe_abortion/9789241548434/en/

Legal considerations regarding ToP

- Most countries' laws allow abortion in a variety of circumstances including rape, incest, threat to a woman health or life.
- Health services are expected to follow national law and regulations.
- Additional barriers to access safe abortion care include negative health providers attitude, institutional and individual oppositions, financial restriction resulting from donor policies, stigma, lack of knowledge and fear.
- Health projects should gain insight into their obligations, including human rights, legal context, clinical normative guidance and any other relevant policy (donor restrictions on funding for abortion)

Legal Ground and Gestational Limit

Country	Foetal impairment	Rape	Incest	Intellectual or cognitive disability of the woman	Mental health	Physical health	Health	Life
Sort:								
Chad	✓	✓	✓	✗	✓	✓	✓	✓
Democratic Republic of Congo	✗	✓	✓	✗	✓	✓	✗	✓
Jordan	✗	✗	✗	✗	✗	✗	✓	✓
Total: 3 countries	✓ 1 ✗ 2 ⓘ 0 ⊘ 0	✓ 2 ✗ 1 ⓘ 0 ⊘ 0	✓ 2 ✗ 1 ⓘ 0 ⊘ 0	✓ 0 ✗ 3 ⓘ 0 ⊘ 0	✓ 2 ✗ 1 ⓘ 0 ⊘ 0	✓ 2 ✗ 1 ⓘ 0 ⊘ 0	✓ 2 ✗ 1 ⓘ 0 ⊘ 0	✓ 3 ✗ 0 ⓘ 0 ⊘ 0

Global Abortion Policies Database (WHO) :https://abortion-policies.srhr.org/?mapq=q1j

Protecting Life in Global Health Assistance. 2018. USAID. US Government policy on donor funds and abortion:

https://www.usaid.gov/sites/default/files/documents/1864/Interagency_PLGHA_FAQs_September_2018_USAID_FINAL-508-v2.pdf

Questions?

Related to the 4 leading causes of maternal mortality?

- Postpartum hemorrhage
- Preeclampsia/Eclampsia
- Infection/sepsis
- Abortion- related

Comments/observations from your setting related to these leading obstetrical complications?

Quality Improvement Steps

1. Develop a MNH committee: PHO, midwives, doctors, partner MedCo, MoH, CHW representative

2. Define your ‘package of care’ for maternal and neonatal health at each level. Coordinate across levels of care

3. Ensure protocols, clinical guidelines, and documentation are in place

4. Capacity building/training for staff

5. Ensure essential supplies and equipment

6. Monitoring Quality and Outcomes

1. SR/MNH Committee or "Perinatal Team Approach"

- Approaching improvement activities requires coordinated approach
- In emergency phase a SRH committee will be in place
- In protracted phase, this is often lost and quality of care may be neglected
- Example: East Cameroon "Perinatal Team Approach" the health partner has created a perinatal committee including doctor, midwives, supervisor from health partner, Chief of Health Centre (MoH), TBAs, community representatives
- They are together determining what gaps exist, priority actions, what training needs are, what scope of care will be provided, guidelines needed, etc.

2. Define your "package of care"

- What is the current level of services offered (BEmONC, CEmONC, basic)? What are the main gaps? Why (policy restrictions, lack of training, lack of equipment, infrastructure, etc.)
- What services do you have the capacity (human resources, infrastructure, etc.) to provide? What gaps can be filled with policy changes, additional equipment or training?
- How does these services correspond with the services at the next referral site?
- Is the referral chain realistic or can some services be shifted to primary from secondary (blood transfusion, care of stable low birth weight).
- Based on this, put in writing a list of essential services to be offered in each level of care.
- Detailed admission/discharge/referral criteria for common conditions can be useful.

Sample: Defining Services by Level

CHILDBIRTH					
SERVICE	CONDITION	STEPS	Health Post	Health Centre	District Hospital
Basic Medical Examination	Routine care	a) Check-up vital signs / Vaginal examination		x	x
Triage and basic emergency care	Active labor with complications	a) Basic emergency care and pre-referral treatment		x	x
Mother care	Childbirth	a) Monitoring progress of labour (partograph)		x	x
		b) Active management of the third stage of labour (AMTSL): Prophylactic use of uterotonics		x	x
		c) Spontaneous delivery		x	x
		d) Assisted delivery (vacuum extraction)		x	x
Management of complications of labour and delivery	Assessment for complications	a) Diagnosis of complications		x	x
		b) Fetal monitoring		x	x
	Postpartum haemorrhage (PPH)	a) Use of uterotonics of choice for the treatment of PPH		x	x
		b) Manual removal of placenta (include use of antibiotics and uterotonics)		x	x
		c) Blood transfusion			x
		d) Use of balloon tamponade		x	x
		e) Use of artery embolization			x
		f) Hysterectomy			x
	Preeclampsia/ Eclampsia	a) Provision of magnesium sulphate		x	x
	Peripartum Infection	a) Provision of parenteral antibiotics		x	x
	Caesarean section due maternal/fetal indication	a) Use of prophylactic antibiotic			x
		b) Caesarean section			x
		c) Use of uterotonics			x
	Other surgical procedures depending on the complication	a) Episiotomy		x	x
		b) Repair of ruptured uterus			x
		c) Correct uterine inversion			x
		d) Laparotomy or other abdominal surgical interventions during childbirth			x
		e) Craniotomy and craniocentesis			x
	Human Immunodeficiency Virus (HIV) positive women	a) Screening of Human Immunodeficiency Virus (HIV)		x	x
		b) Prevention Mother To Child Transmission (PMTCT)		x	x

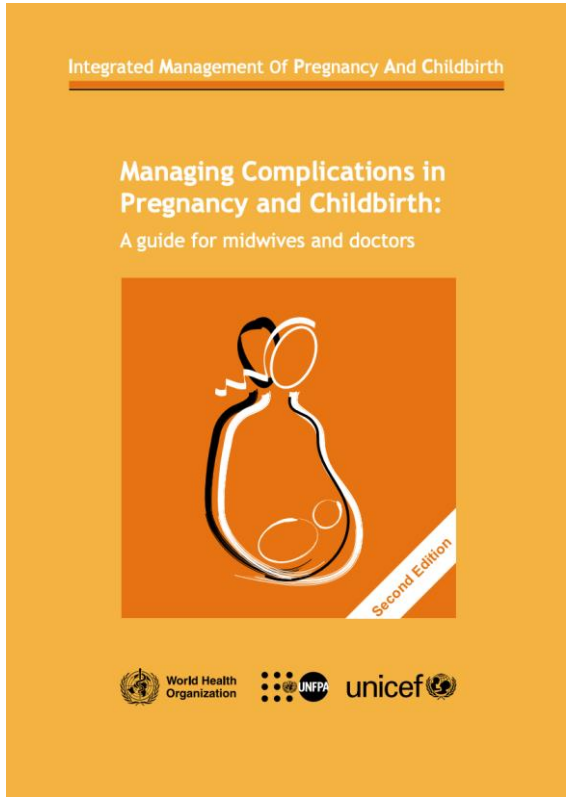
3. Ensure Guidelines and Documentation in Place

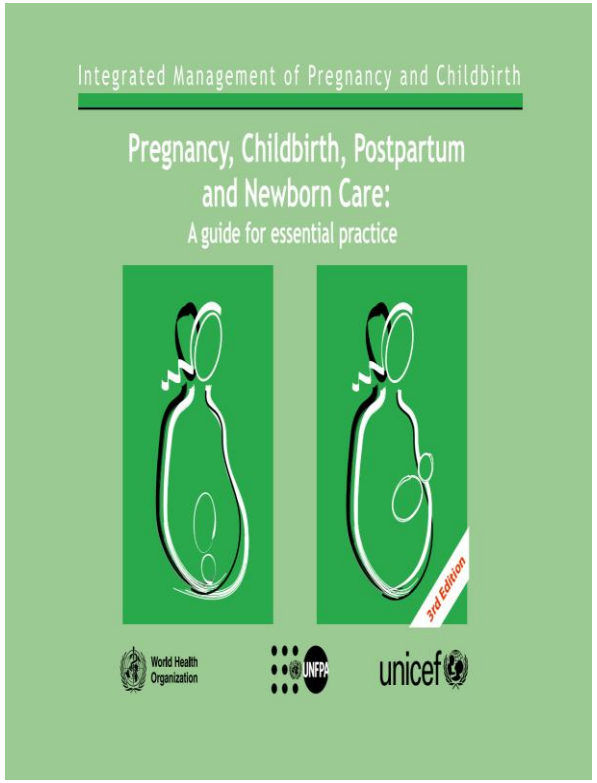
Ensure patient files/charts are available:

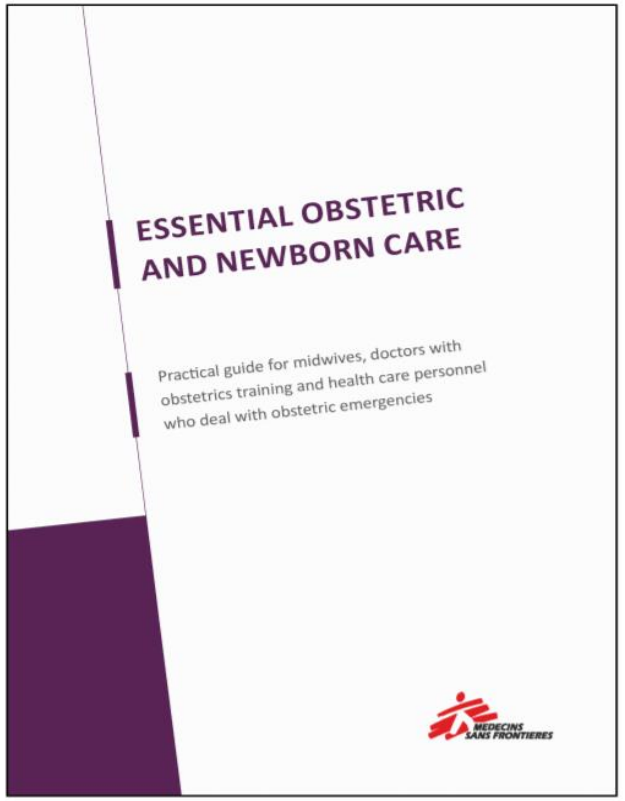
- ANC/PNC file (patient held)
- Partograph
- Routine postnatal chart (inpatient)
- Discharge checklist (postnatal)
- Obstetric complication files - e.g. PAC chart, MgSO4 monitoring, resuscitation records, etc.

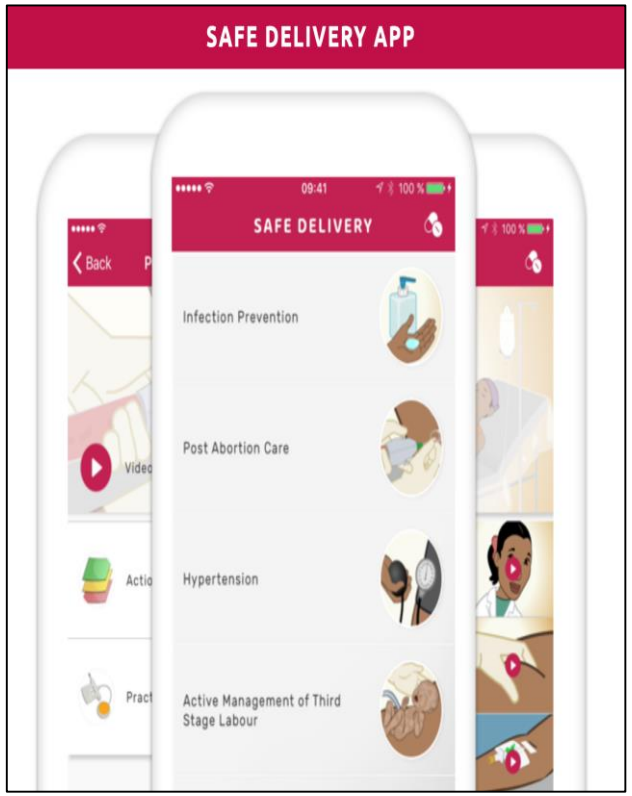
Ensure key clinical guidelines are available (see annex for examples):

- ANC
- Childbirth and PNC
- EmONC (managing complications in pregnancy and childbirth)
- Management of Newborn and Childhood Illnesses
- Resuscitation
- Hospital Infection Control









Edition 2019 Also available as Apps
https://medicalguidelines.msf.org/viewport/MG/en/guidelines-16681097.html#books

https://www.maternity.dk/download/

Sample Clinical Guidelines for Health Workers

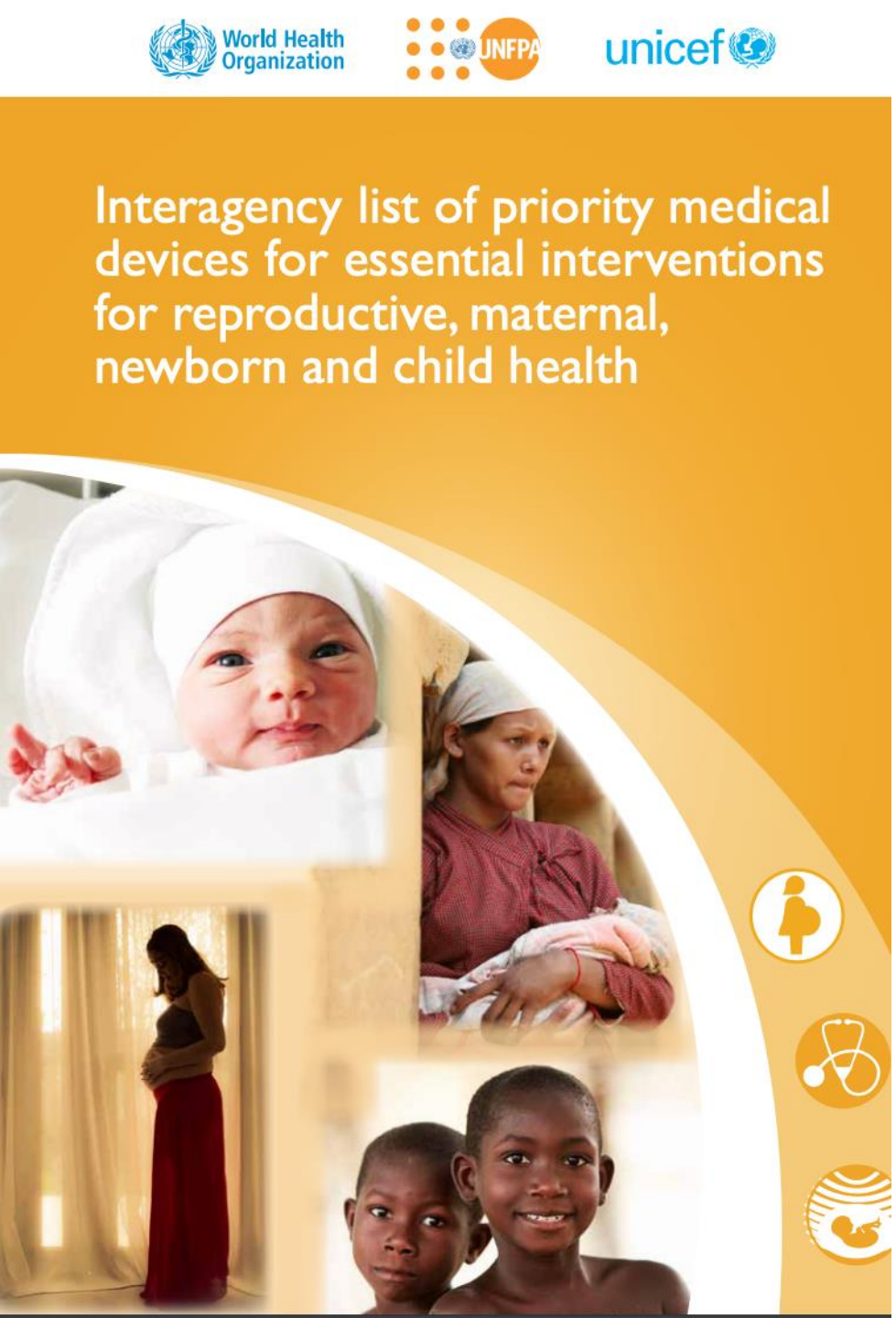
4. Capacity Building of Health Care Workers

- 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) in addition to formal, off-site EmONC courses
- Opportunities for mentorship for specific skills (for example ventouse/vacuum delivery) are necessary to build skills
- Consider staff rotating through higher level of service (district/regional hospital) to gain specific experience/skills
- Supportive supervision daily

5. Ensure essential equipment and medications are available

- Most essential items may be found on UNHCR's Essential Medicines List
- Coordinate with UNFPA to access items not available through UNHCR
- Avoid stock-outs of essential items through good pharmacy management (consumption records, stock cards, knowing seasonal patterns of disease, etc.)
- Using a monitoring checklist may be useful to periodically check for essential items/medications are available

Postpartum Haemorrhage	Oxytocin Ergometrine Misoprostol Tranexamic acid* NASG *
Pre-eclampsia and eclampsia	Magnesium sulphate Calcium gluconate Hydralazine Methyldopa
Peripartum sepsis	Parenteral antibiotics
Labour dystocia	Vacuum /ventouse* Oxytocin
Abortion care	Misoprostol Mifepristone-Misoprostol Manual vacuum aspirator Tetanus vaccination Antibiotics
Preterm delivery	Dexamethasone or betamethasone Nifedipine (as tocolytic)



Priority Equipment by Level

- Tool to help determine what key reproductive/maternal/newborn equipment and essential interventions are recommended at each level of care (health post/health centre/district hospital)
- Note: Document contains medical devices/equipment and not medications

https://www.who.int/medical_devices/md_maternal_BOOK_May2016_D.pdf

6. Monitoring maternal health indicators

- Critically 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 on collection. (See Additional Resources)
- Share back HIS results with front line staff and make results “actionable”
- Ensure maternal mortality audits are done for every maternal death with shortest delay (48h).
- Community surveillance of births/deaths is essential for full picture (e.g. % facility based deliveries, mortality rates)
- Balanced Score Card ‘RH comprehensive module’ +/- supplementary checklists (e.g. EmONC)
- Make joint monitoring visits with UNHCR, MoH, implementing partner, UNFPA or UNICEF (if active)

Summary: Addressing Quality of Care

Assess your health facilities' capacity to provide essential childbirth and newborn care, EmONC functions, and prevent/treat the 4 leading causes of maternal mortality. Identify gaps and take action.

Consider implementing a 'perinatal team approach' or SR/MNH committee to ensure key components of care are in place and coordinated between levels of care

Ensure health workers have access to up-to-date protocols and clinical guidelines, essential equipment and medications. Ensure an annual training plan for health workers that includes key maternal health topics

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

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

Ensure that you capture and audit all maternal deaths.

THANK YOU FOR YOUR ATTENTION

Questions/Comments?

Additional Resources

Short Training Courses

HMS/HBS (Designed as short, in-facility trainings)

Helping Babies Survive

https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/helping-babies-survive/Pages/default.aspx

(Helping Babies Breathe, Essential Care for Every Newborn, Essential Care for Small Baby (preterm)

Helping Mothers Survive

https://hms.jhpiego.org/

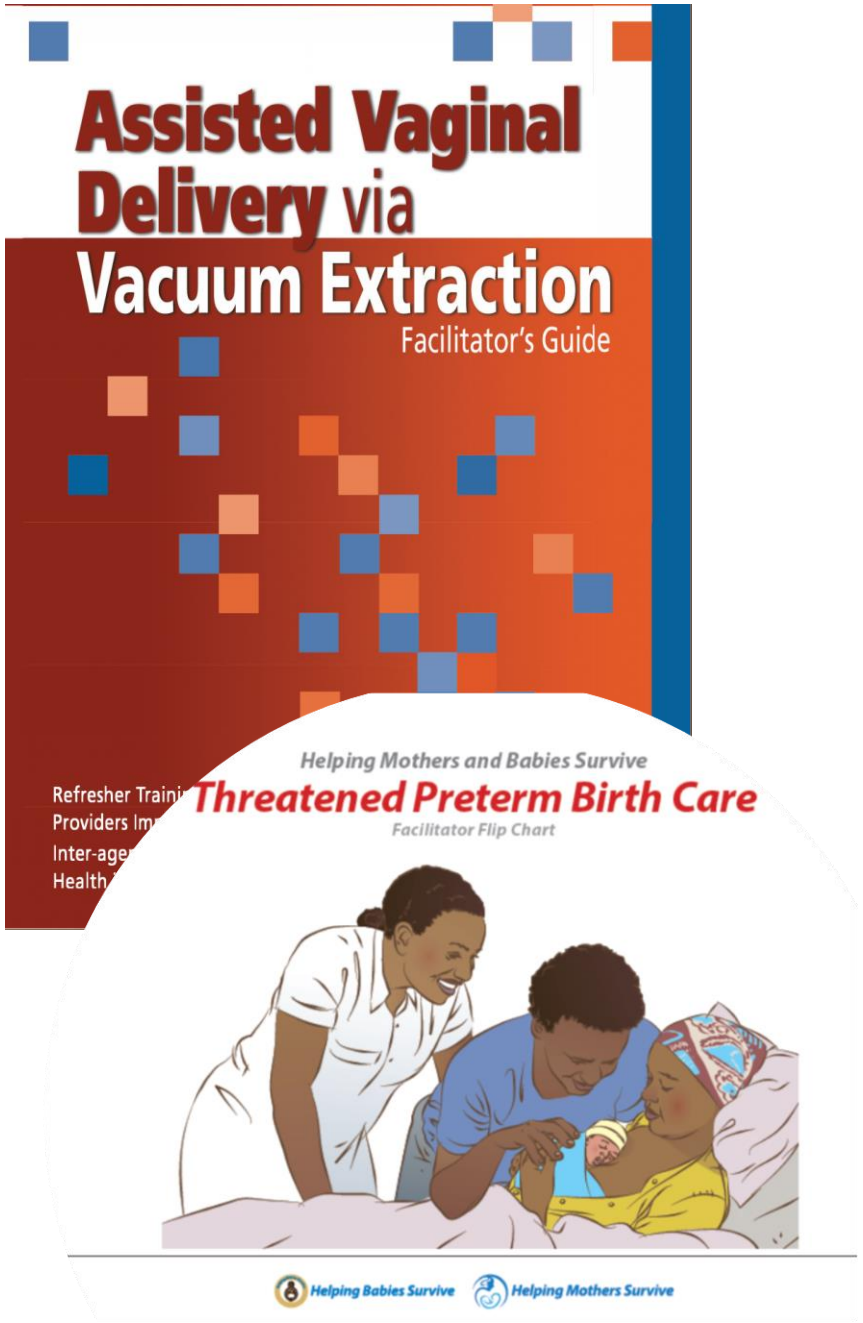
(Essential Care for Labor and Birth, Preeclampsia/Eclampsia, Bleeding after Birth, Threatened Preterm Birth)

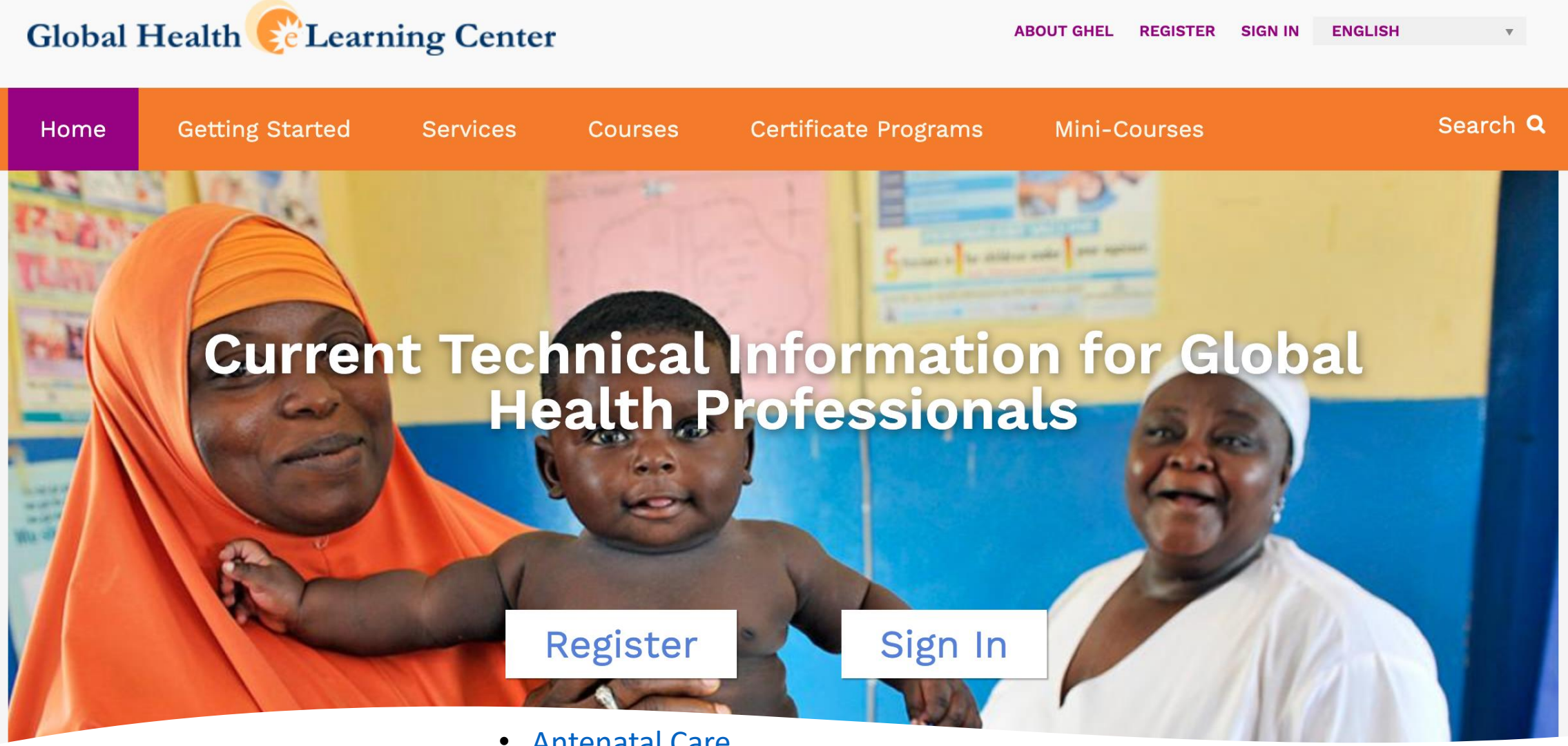
Order training materials (mannequins): https://laerdalglobalhealth.com/products/newborn-health/

Interagency Working Group on Reproductive Health in Crisis (IAWG)

http://iawg.net/tpi-home/resources/

- Clinical management of sexual assault survivors
- Uterine evacuation using MVA
- Assisted vaginal delivery using vacuum
- BEmONC in Humanitarian Crisis – Select Signal Functions





E-learning Courses

https://www.globalhealthlearning.org/

- Antenatal Care
- Emergency Obstetric and Newborn Care
- Malaria in Pregnancy
- Maternal Survival - A Holistic Approach
- Preventing Postpartum Hemorrhage

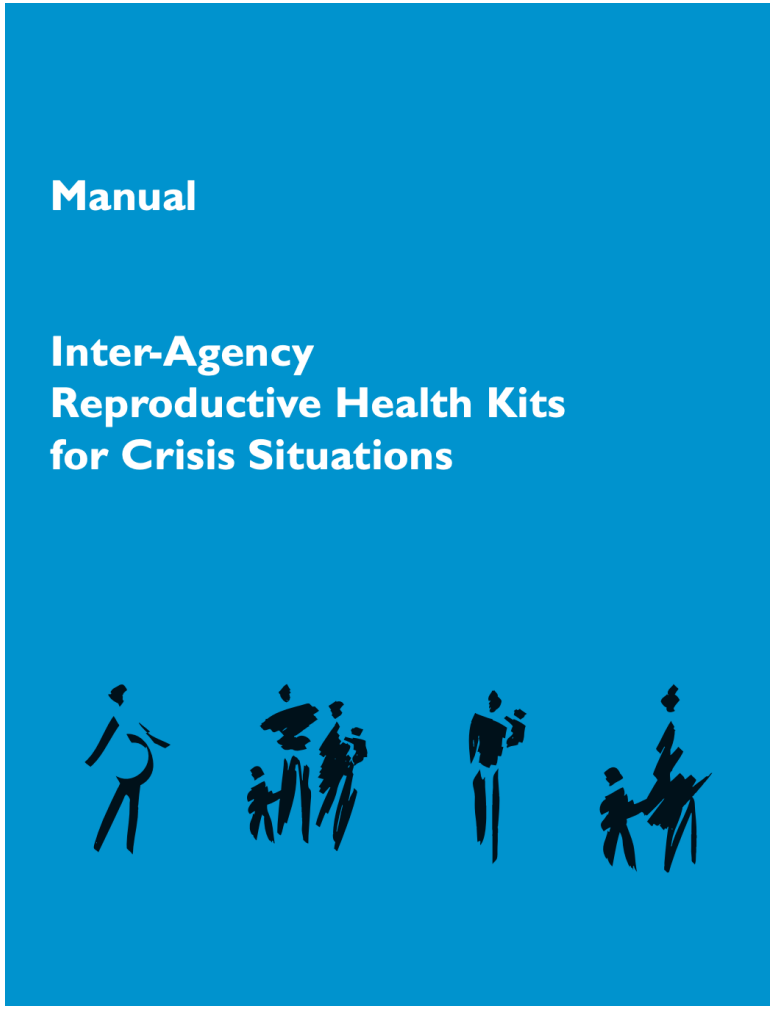
Community health worker training materials

WHO's Caring for the Newborn at Home

UNHCR Geneva has modifiable:
- Training materials
- Picture books
- Referral forms
- Sample registers
English, French, Arabic

Supplies in the Emergency Phase

- **Reproductive health kits** are part of the MISP and can be ordered for the initial phase of emergency,
- - Kit use is temporary -> switch to regular supply chain ASAP
- Order simultaneously with **newborn health kits.**
- Contain supplies for three-month period
- Agencies should adhere to standards set by the country in which they are working regarding **treatment protocols and essential medicine lists** (EMLs). When these are not available or incomplete, the UNHCR EML should be followed.



Inter-Agency RH kits

	Kits	
Community and Primary Health Care Level 10 000 pop	0	• Training and administration
	1 A & B	• Condoms (male & female)
	2 A & B	• Clean delivery - home
	3	• Post-rape care
	4	• Oral and injectable contraception
	5	• STI drugs
Health centre or hospital level (BEmONC) 30 000 pop	6 A & B	• Delivery - midwife
	7	• IUD insertion
	8	• Complications of abortion
	9	• Suture of cervical and vaginal tears
	10	• Vacuum extraction
Referral Hospital level (CEmONC) 150 000 pop	11 A &B	• Obstetric Surgery
	12	• Blood transfusion

Kits contain supplies for 3 months

Ordering RH kits

Guidance on ordering and management of RH Kits (UNPFA)

https://www.unfpaprocurement.org/documents/10157/9226b80b-6668-4dcd-9182-79d960a93adf

Demographic assumption	Kit 1-5	Kit 6-10	Kits 11 and 12
Size of population that can be served by each kit	10,000	30,000	150,000
No. of adult males (20% of total population)	2000		
No. of women aged 15-49 years (25% of total population)	2500		
Given standard crude birth rate of 4%, • Estimated no. of deliveries in 12 months • Estimated no. of deliveries in 3 months • Estimated no. of pregnant women at any time	 400 100 300	 1200 300 900	 6000 1500
No. of women aged 15-49 years who have suffered sexual violence (2% of total female population)	50		
No. of women aged 15-49 years using contraception (15% of total female population), and of which, • No. of women using oral contraceptives (40% of total women using contraception) • No. of women using injectable contraceptives (55% of total women using contraceptives) • No. of women using an IUD (5% of total women using contraceptives)	375 150 210 20	 60	
No. of pregnancies that end in miscarriage or unsafe abortion (20% of total deliveries within a 3 month period)		60	
No. of women who have vaginal tears when giving birth (15% of total deliveries within a 3 month period)		45	
No. of births that require caesarean section (5% of the total deliveries within a 3 month period)			75

“Standard“ population

- Adult males 20%
- Women of reproductive age (WRA) 25%
- Crude birth rate 4%
  - *Number of pregnant women*
  - *Number of deliveries*
- Complicated abortions/pregnancy 20%
- Vaginal tears/delivery 15%
- Caesarean sections/delivery 5%
- WRA who are raped 2%
- WRA using contraception 15%
  - *Oral contraception* *30%*
  - *Injectables* *65%*
  - *IUD* *5%*

HIS INDICATOR	TARGET	VERY HIGH VALUES	VERY LOW VALUES
Antenatal care • Early (first trimester) • Complete (4 or more visits)	>90%	• Good availability, access and acceptability	• Barriers to availability, access or acceptability • Low perceived value • Early ANC – cultural reasons (hiding pregnancy)
Antenatal care (content) • Coverage of syphilis screening in pregnancy • Coverage of antenatal tetanus immunisation • Coverage of IPT for malaria in pregnancy (malarial zones only)	100%	• Good quality of care for ANC and patient acceptance of screening/treatment	• Policy • Rupture in materials (syphilis tests, SP for IPT-SP) or lack of prioritization • Lack of written guidance/policies for recommended content of ANC care
Health facility delivery and Skilled birth attendance	>90%	• Good availability, access, and acceptability • Established health services • 24/7 availability of skilled birth attendants • Poor reporting of home deliveries (weak community-based surveillance/reporting)	• Lack of availability, access or acceptability of care • Skilled birth attendants not available 24/7 • Emergency phase – services not well established • Cultural barriers/traditions for home births
Postnatal care (3 visits within 6 weeks)	>90%	• Good availability, access and acceptability	• Barriers to availability, access or acceptability • Low perceived value • Cultural – e.g. 40 days staying at home post-delivery

HIS INDICATOR	TARGET	VERY HIGH VALUES	VERY LOW VALUES
Stillbirth rates (definition of stillbirth varies from country to country depending on viability – between 20-28 weeks). WHO definition for international comparison is 28 weeks or 1000g	Similar to or below host rates SDG Goal 2030: 12 per 1000 total births SBRs are often similar to NMRs 50% are intrapartum	• Poor management of labor and birth • Poor antenatal care/poor management of pregnancy risk factors (post-dates, diabetes, HTN) • High untreated syphilis infection rates • Low attendance ANC/skilled delivery • Neonatal deaths being misclassified as stillbirths	• Lack of reporting • Stillbirths occurring at home
Maternal mortality UNHCR HIS usually reports crude numbers. 'Ratio' in small populations is unstable (as event is very rare)	SDG Goal 2030: global average 70 per 100000 live births (and no country >140)	• Poor availability, access, acceptability of health services • Poor quality of care • Weak referral system • Disease outbreaks (e.g. malaria/HEV)	• Lack of reporting or capture of deaths • Fear of reprisal (health workers or TBAs) • Weak community surveillance and reporting • Lack of reporting deaths occurred outside of camp (referral facility)
Caesarean section rate	Expected 5-10%	• Poor non-surgical management • - Fear of litigation • - Hospital culture • - Patient or provider preference • - Active conflict setting (Syria)	Poor service availability/access - Weak referral system - Fear of procedure/socially unacceptable - Lack of correct recording of cases referred out

Type of Guideline	Example (local MoH guidelines have preference if available and updated)
ANC guidelines	WHO. 2015. Pregnancy, Childbirth, Postpartum and Newborn Care: A guide for essential practice, Third Edition Available from: https://apps.who.int/iris/bitstream/handle/10665/249580/9789241549356-eng.pdf?sequence=1 For policy makers: WHO. 2016. WHO recommendations on antenatal care for a positive pregnancy experience. (new recommendations for 8 ANC contacts) https://www.who.int/reproductivehealth/publications/maternal_perinatal_health/anc-positive-pregnancy-experience/en/
PNC guidelines	WHO postnatal Care guidelines: https://www.who.int/maternal_child_adolescent/publications/WHO-MCA-PNC-2014-Briefer_A4.pdf?ua=1 PNC :Pre-discharge checklist Bedside poster: https://www.healthynewbornnetwork.org/hnn-content/uploads/PNC-Bedside-Pre-Discharge-Poster_Asia-2016-1.pdf Pre-discharge checklist: https://www.healthynewbornnetwork.org/hnn-content/uploads/PNC-Checklist_Asia-1.pdf
Labour and delivery/Newborn guidelines	WHO. 2015. IMPAC: Pregnancy, Childbirth, Postpartum and Newborn Care: A guide for essential practice, Third Edition Available from: https://apps.who.int/iris/bitstream/handle/10665/249580/9789241549356-eng.pdf?sequence=1
Emergency obstetric and new-born care guidelines (EmONC)	WHO. 2017. Managing Complications in Pregnancy and Childbirth: A guide for midwives and doctors.2nd edition. Available from: https://apps.who.int/iris/bitstream/handle/10665/255760/9789241565493-eng.pdf?sequence=1 MSF: Obstetrical and Neonatal Care: http://refbooks.msf.org/msf_docs/en/obstetrics/obstetrics_en.pdf
Guidelines for Care of Sick newborns	Outpatient: Integrated Management of Newborn and Childhood Illnesses (IMNCI): WHO. 2014. IMNCI Chart booklet (English). (Includes separate section on 0-2 months) Available from: https://www.who.int/maternal_child_adolescent/documents/IMCI_chartbooklet/en/ WHO. 2003. Managing newborn problems: a guide for doctors, nurses, and midwives. https://apps.who.int/iris/bitstream/handle/10665/42753/9241546220.pdf?sequence=1 WHO. 2013. Pocket book of hospital care for children https://www.who.int/maternal_child_adolescent/documents/child_hospital_care/en/ MSF. 2015. Advanced Neonatal Care https://www.healthynewbornnetwork.org/hnn-content/uploads/MSF_Advanced-Neonatal-Care_2015.pdf MSF: Obstetrical and Neonatal Care: http://refbooks.msf.org/msf_docs/en/obstetrics/obstetrics_en.pdf
Guidelines for care of pre-term or low birth-weight new-borns	WHO. 2003. Kangaroo Mother Care, a Practical Guide. https://www.who.int/maternal_child_adolescent/documents/9241590351/en/ KMC Implementation guide: https://www.mchip.net/sites/default/files/mchipfiles/MCHIP%20KMC%20Guide.pdf WHO. 2011. Guidelines on optimal feeding of low birth-weight infants in low- and middle-income countries. (for policy makers) https://www.who.int/maternal_child_adolescent/documents/9789241548366.pdf?ua=1