# Maternal Death Review Guidance

(2020 revision)

UNHCR
The UN Refugee Agency

### *What is a maternal death?*

A maternal death is the death of a woman (or girl)[1] while pregnant or within 42 days of the end of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.

### *Should each maternal death be reviewed?*

Yes. Every maternal death that occurs within a refugee camp or settlement (of a refugee or a national) or a refugee living outside of a settlement or at a referral health facility or en route should be systematically notified (within 24 to 48 hours[2]) and reviewed, ideally within the 1st week following the death.

### *What is the purpose of reviewing a maternal death?*

It is estimated that half a million women die every year during pregnancy and childbirth and an additional 7+ million women who survive childbirth suffer serious health problems (WHO). A maternal death review provides an opportunity for health staff, family and communities to learn from a tragic – and often preventable - event. Maternal death reviews should be conducted as learning exercises that do not include blaming, finger-pointing or punishment. The purpose of a maternal death review is to improve the quality of safe motherhood programming to prevent future maternal and neonatal morbidity and mortality and to identify actions to prevent future shortcomings in access to quality essential maternal and neonatal health services.

### *Should each maternal death be reported?*

Yes. The accompanying report form should be completed for each maternal death review and e-mailed (at minimum) to:

- The UNHCR Public Health Officer of the settlement/camp
- The UNHCR Public Health Officer/Reproductive Health Officer of the country office, and
- The UNHCR Regional Public Health Officer and Reproductive Health Officer (where present) , and
- Other relevant staff (e.g. IP Health Coordinator, other partner agencies, etc.)
- District or Provincial Health Officer

As much as possible maternal death reporting and review in refugees or other persons of concern should feed into the national reporting and review process. Where available national maternal death review forms should be used. If not available, please use the accompanying UNHCR maternal death review form.

[1] While the WHO specifies women, it seems important to highlight the worrisome part of deaths among girls
[2] Maternal death surveillance and response. Technical Guidance. UNFPA 2013. https://www.unfpa.org/sites/default/files/pub-pdf/Maternal_Death_Surveillance_and_Response_0.pdf

### *How should this information be obtained?*

In order to complete this form, please consult any relevant persons familiar with the case.
This should include at least:

- Any medical staff that was involved in the patient care
- Caretakers or staff included in the transfer of the patient
- A family member or community member that was with the woman before and or during the events prior to death (abortion, accident, labour, delivery, etc)

Any additional person with relevant knowledge on the events preceding and/or contributing to the death, should be heard and related information included

### *Which Maternal death audit format should be used?*

Whenever available and feasible, the maternal mortality audit format of the host government should be used. UNHCR will advocate for adjustments of national documents and administrative instructions and/or propose to use the UNHCR standard when:

a. When available and not complying with minimum standard of needed information
b. When administrative instructions (e.g. can only be filled out by a medical officer of the government) delay or prevent timely establishment of audits

The following guide will clarify and define how to complete the maternal death audit form. It will include definitions and explain why the collection of specific is important. The following order mirrors the ***UNHCR Standard Maternal Death Review Form*** and which you can download through this link.

Note: The form is a word document that you need to download and either print or fill out electronically once downloaded and saved. Make sure not to fill out the version on the CoP!

### *Overview* *(use page number on the right to access section)*

## 1. How do I complete CONTACT DETAILS?

Please provide your information, that is the person filing this report, with your full name, title and contact details.

## 2. How do I complete REVIEW PARTICIPANTS?

Please provide all information on who was involved in providing information for this audit in the appropriate category, including full name, associated organisation and position if available.

## 3. How do I complete PATIENT INFORMATION?

Please provide all information asked in the categories to the best of your knowledge available. Especially the age, number of previous pregnancies and deliveries greatly influence the risks incurred during the current pregnancy / delivery leading to the maternal death.

In case of a refugee, please indicate the nationality and current host country. Should the patient be an internally displaced person (IDP), it is important to note their current location / settlement which is different from the region they are originally from. Please select national, if the person is from the location, but attended the services provided within the settlement/ camp, despite not having an IDP or refugee status.

### *3.1 FIRST NAME*

First name stated by the woman at admission or provided by the family

### *3.2 LAST NAME*

Last name stated by the woman at admission or provided by the family

### *3.3 STATUS*

Refers to the status of the deceased woman/girl, namely was she a refugee, a national, an asylum seeker or an IDP). Please Tick ONE option

### *3.4 HOST COUNTRY*

The country in which a refugee or asylum seeker is hosted. State country

### *3.5 NATIONALITY*

Refers in general to nationality gained by birth and is often the same as the country of origin.

### *3.6 CAMP/SETTLEMENT*

Refers to the name of the location (camp, settlement, village) where the deceased lived immediately prior to her death

### *3.7 AGE*

Including the age is important, as adolescent pregnancies (i.e., ≤ 19 years old) or advanced maternal **age** (i.e., ≥ 35 years old) is associated with increased **risk** of adverse maternal and perinatal outcomes, such as postpartum haemorrhage, eclampsia, and cephalopelvic disproportion, as well as adverse infant outcomes including preterm birth, poor foetal growth.

### *3.8 GRAVIDA*

The number of pregnancies a woman has had, regardless of the pregnancy outcome. Here put the **total number of pregnancies** the woman/girl had, including the one which caused the maternal death. Pregnancies with twins or other multiples are counted as **one** pregnancy.

We record this because of the association with specific risks: e.g. primigravidae have a higher risk of pre-eclampsia, while women with high gravida (and para) are more likely to experience excessive blood loss during and after labour.

### *3.9 PARITY*

The **number of times a woman has given birth** to a foetus with a gestational age of 28 weeks or more (viable gestational age), whether stillbirth or born alive. Please note that some countries count parity at 22 weeks and more, please use UNHCR/WHO 28 weeks standard whenever possible, else note when a different definition is used. Twin and multiple pregnancy are counted as 1 para

Similar to the above regarding gravidae, nulliparous women and girls, have a higher risk of pre-eclampsia, whereas grand multiparity, is associated with malpresentation, preterm delivery, uterine atony, placenta praevia, uterine rupture, amniotic fluid embolism and PPH.

### *3.10 EVER SEEN BY HEALTH STAFF*

Did the woman/girl consult with health staff prior to the episode which lead to her death (e.g. ANC, contraception, vaccination, HIV care, GBV, etc). If yes, there may be a patient file that may provide insight into her medical history.

## 4. How do I complete PREVIOUS OBSTESTRIC HISTORY?

Please answer **ALL** options with **YES** or **NO.** If YES and if the information is available, please provide the number of said previous medical condition or event.

Complications in prior pregnancies and deliveries as well as adverse pregnancy outcomes can indicate risk conditions that should have been considered in the management of the pregnancy/delivery, including preventive action such as referral to higher level care. Known previous complication that were not considered in the medical management (including referral to higher level care) may reflect shortcomings in care at several levels: history taking, risk identification, knowledge of adequate preventive action.

### *4.1 STILLBIRTH*

Based on WHO stillbirths are least 1000g birthweight, and/or 28 weeks of gestation and at least 35 cm long. Note that national definitions might vary (e.g. as early as over 20 weeks and more than >500 grams) and apply accordingly. Please add the **total number** of foetuses deceased before the maternal death, if known. For more informational on stillbirth and neonatal mortality please refer to WHO: making every baby count.

### *4.2 ABORTION (SPONTANEOUS & INDUCED)*

Alternatively referred to as pregnancy loss or miscarriage. Please add, if known, the total number of all lost foetuses before 20 weeks of gestation.

Many countries have restrictive legislation regarding induced abortion. UNHCR does not explore the woman's reasons for induced abortion and does not pass judgement on the subject, but rather seeks information on the circumstances of past induced abortion: safe, less safe and least safe (unsafe).

### *4.3 POSTPARTUM HAEMORRHAGE (PPH)*

An estimated blood loss of more than or equal to 500ml within 24 hours after birth, in case of severe primary PPH defined as blood loss or more than or equal to 1000 ml within 24 hours.

PPH in a previous pregnancy is one of the greatest risk factors for recurrent PPH. Worldwide PPH is the leading cause of maternal mortality, and accounts for a quarter of all maternal deaths. For additional information for prevention and treatment see WHO recommendations.

### *4.4 ANTEPARTUM HAEMORRHAGE (APH)*

Bleeding from the genital tract during pregnancy, after 20 weeks or more (third trimester), often associated with placental previa, placental abruption or labour. APH may entail maternal and foetal/newborn morbidity and mortality.

### *4.5 CAESAREAN SECTION*

Surgical intervention often due to obstructed or prolonged labour, malpresentation, high blood pressure or problems with placenta or umbilical cord.

If known, please indicate number of previous C-sections

### *4.6 OTHER*

Please add any other known pregnancy complications in the woman's obstetric history if relevant and known to you.

## 5. How do I complete ANTENATAL PERIOD?

In this section please complete all information to the best of your knowledge available and only regarding the current pregnancy to which the maternal death is attributed. The below conditions are highlighted because they are known as potential contributing factors to maternal complications and death and in the audit we want to identify if any of them, where present, were identified and should have been taken into account in patient management and care.

In case laboratory data is available for the antenatal period, please add quantifiable as follows:

- Haemoglobin result (GRAMS per DECILITRE);
- Blood sugar result (MILLIMOLES per LITRE);
- Proteinuria result (MILIGRAM per DECILITRE or dipstick result).[3]

Indication of these can be important to recognize early signs of anaemia, diabetes, kidney diseases and pre-eclampsia and therefore show early warning sign of high-risk pregnancies.

For the following indicators, please indicate **YES** or **NO,** if known, and **N/A** if not applicable for other reasons (e.g. malaria is not endemic in the area so no need for intermittent malaria prophylaxis) and DON'T KNOW if you are unable to access this information.

### *5.1 WHY DO I HAVE TO RECORD INTERMITTENT MALARIA PROPHYLAXIS (IPT)?*

Malaria infections pose an important risk in pregnancy for mother and foetus. Intermittent preventive treatment in pregnancy (IPT) is recommended to reduce the adverse effects of malaria during pregnancy and which include maternal and foetal anaemia, placental parasitaemia, low birth weight and neonatal mortality.

### *5.2 WHY DO I HAVE TO RECORD IRON FOLIC ACID?*

Anaemia is associated with iron, folate and vitamin A deficiencies. It is estimated to affect 38.2% of pregnant women globally, with the highest prevalence in the WHO regions of South-East Asia and Africa. Major contributory factors to anaemia include parasitic infections such as malaria, hookworm and schistosomiasis, in areas where these infections are endemic. In addition, chronic infections such as tuberculosis (TB) and HIV, and haemoglobinopathies such as sickle-cell disease, contribute to the prevalence of anaemia, as well as malnutrition. It is estimated that 0.8 million pregnant women globally have severe anaemia (defined as a blood haemoglobin concentration below 7 g/dl during pregnancy). Pregnancy-related anaemia is associated with an increased risk of maternal and infant mortality. See WHO recommendations

### *5.3 HOW DO I COMPLETE RISK FACTORS ANC?*

Please select **one or several** of the factors listed. All of these can contribute to a high-risk pregnancy and therefore inform the history and deadly outcome of the current pregnancy / delivery. For clarification on the individual risks see below.

### *5.4 DIABETES*

[3] For reliable conversion please refer to https://www.convertunits.com/from/ml/to/deciliter

Diabetes type 1, type 2 or gestational diabetes can present risks for pregnant women and the foetus/newborn. Please note if **ANY** of the diabetes types were diagnosed prior or during the pregnancy.

### *5.5 HYPERTENSIVE DISORDER*

Hypertensive disorder in pregnancy, mainly severe pre-eclampsia and eclampsia are amongst the four main causes of maternal mortality worldwide and underlying causes of foetal demise and neonatal death. They are further associated with increased risk of maternal and perinatal mortality. Further they seem to be associate with other cardiovascular morbidities and mortality in the long term. For more information see WHO recommendations.

For this audit please indicate if **ANY** information of hypertension disorder during the pregnancy.

### *5.6 HIV/AIDS*

Apart from the obvious interest in the HIV status of the mother regarding the prevention of mother-to-child transmission of HIV and early infant diagnosis, the HIV status is also important to know as part of the maternal death audit, for the following reasons (in case of sero-positivity):

- Not on ARTs and immunocompromised – e.g. case of sepsis
- Ostracised, lack of livelihoods, malnourished, anaemia – e.g. cases of PPH
- Status known to health staff, medical negligence related to stigma – e.g. woman not monitored and not cared for during and after birth
- Other contextual considerations that may make a woman with an HIV positive status more at risk of maternal mortality than other women

### *5.7 MALPRESENTATION*

Malpresentation occurs when the baby is not facing down the birth canal with the crown of the head against the cervix; any other part of the baby facing the cervix is considered malpresentation. Malpresentation increases the chance of umbilical cord prolapse, need for assisted delivery or caesarean section and therefore should be recorded in ANC visits. Absence of patient management decisions (e.g. referral for planned c-section) may be a factor which contributed to maternal complications and death.

Please select option if **ANY** form of malpresentation was diagnosed/known during ANC.

### *5.8 ANTEPARTUM HAEMORRHAGE (APH)*

Please see information outlined above and select option if **ANY** indicator of APH was presented.

### *5.9 FEMALE GENITAL MUTILATION/CUTTING TYPE III*

Mainly limited to parts of Africa, this traditional harmful practice in young girls involves the partial or total removal of external female genitalia or other injury to female genital organs. FGM is considered a form of sexual and gender-based violence (SGBV). There are four types of FGM, for additional information see the WHO Fact sheet. For the maternal death risk factors the focus is on type III (also known as infibulation) and which is associated with several

complications, among which are a higher chance of obstructed labour and formation of obstetric fistulae.

It is important to record this information as women/girls with type III FGM, particularly primiparas, are more likely to face prolonged and obstructed labour and subsequent c-section; evidence shows also an increase of PPH.[4]

There is a higher risk of neonatal asphyxia and perinatal death to babies born to mothers with FGM. The severity of outcomes increases with the severity of type of FGM.

Please select this option if **type 3 (infibulation)** of FGM was performed and presented.

### *5.10 NO RISK FACTOR*

Please only select this option if **NO** risk factor was presented and documented.

### *5.11 WHAT IS INCLUDED UNDER HOSPITALIZATION IN THE ANTENATAL PERIOD?*

In this category please indicate any hospitalization that occurred during **THIS** pregnancy by answering YES or NO. If yes, and available, please indicate for what medical condition the mother was hospitalized and what the treatment and outcome was.

### *5.12 WHAT IS INCLUDED UNDER ANC MEDICATIONS?*

Here please indicate if the mother was prescribed any medication during ANC in **THIS** pregnancy, answer with YES or NO. If yes, please specify which medication was given for what medical condition. No need to repeat malaria prophylaxis and Iron/folic acid as it was already requested further up.

## 6. How do I complete POSTNATAL PERIOD?

This applies ONLY to women who went through labour and delivery (including c-section) and who died after the immediate post-partum period, meaning a woman who died 24 hours or more after birth[5]

To answer the question if postnatal visits were provided on time according to schedule, answer **YES** or **NO**, if known. If you do not know, answer **DON'T KNOW**. If the woman died before the post-natal period answer **N/A**.

Describe all postnatal care that you are aware of. This can include any preliminary treatment of postpartum haemorrhage, pre-eclampsia and infections etc. Any details can help describe the larger medical picture.

### *6.1 DESCRIBE POSTNATAL CARE PROVIDED AT HEALTH FACILITY LEVEL*

Describe the postnatal care provided at health facility or community level, including time and date of discharge (if applicable). After spontaneous vaginal delivery (SVD) women and newborns should stay 24 hours in the post-partum ward and be monitored, in case of caesarean section, women will usually stay 3-4 days with close monitoring and should have their baby with them as much as possible. Women and babies should have a discharge visit before leaving the maternity ward of the health facility.

[4] Effects of female genital mutilation on childbirth in Africa. WHO 2006. https://www.who.int/reproductivehealth/publications/fgm/effect_of_fgm_on_childbirth_africa.pdf

[5] Technical Consultation on Postpartum and Postnatal Care. WHO, 2010. https://www.ncbi.nlm.nih.gov/books/NBK310595/

### *6.2 PNC FOLLOWING DISCHARGE OR HOMEBIRTH*

The post-natal visits refer to visits to out-patient postnatal care, either for women who come back for check-ups after discharge from the maternity ward or for women who seek check-up after a home delivery. See WHO recommendations

### *6.3 TIMING OF POSTNATAL VISITS*

Please refer to the national guidelines regarding the postnatal visit calendar. In case such guidance is not available or incomplete, use relevant WHO guidance summarized below

- Provide postnatal care in first 24 hours for every birth:
  – Delay facility discharge for at least 24 hours.
  – Visit women and babies with home births within the first 24 hours.
- Provide every mother and baby a total of four postnatal visits on:
  – First day (24 hours)
  – Day 3 (48–72 hours)
  – Between days 7–14
  – Six weeks
- Offer home visits by midwives, other skilled providers or well-trained and supervised community health workers (CHWs).
- Use chlorhexidine after home deliveries in high newborn mortality settings.
- Re-emphasize and support elements of quality postnatal care for mother and newborn, including identification of issues and referrals.

## 7. How do I complete MAIN SYMPTOMS PRIOR TO DEATH?

Tick options that apply; more than one is possible. Please tick **ALL** symptoms that the woman experienced prior to death. If any symptom that you believe is relevant, is not included in the list, write it under OTHER. If you choose OTHER, PLEASE specify; provide as much detail on symptoms as possible.

## 8. How do I complete INFORMATION ON THE CIRCUMSTANCES OF DEATH?

There are three options, please select the ONE most applicable. **Stable**: The woman arrived in overall good physical conditions, she is conscious, there are no or minor medical complications. **Critical**: The woman arrives in life threatening conditions **Dead on arrival:** The women did not show any vital signs upon arrival in the health facility.

### *8.1 ESTIMATED GESTATIONAL AGE*

State the age of the pregnancy by age according to last manual period or fundal height. Use information from the patient chart when available and double check with reviewers.

### *8.2 TIMING OF DEATH*

When did the death of the woman occur: during pregnancy and before onset of labour, during labour and delivery or after delivery? Please tick **ONE** option

### *8.3 LOCATION OF DEATH*

This question refers to the place where death occurred and is important to understand different options for help the woman may or may not have consulted (e.g. traditional birth

attendant, primary health facility, secondary health facility-hospital, and related transport, particularly referral transport, be that an ambulance or other option. It further helps to understand if the woman died before admission, before or after discharge from a health facility. Please tick **ONE** option.

### *8.4 DELIVERY OUTCOME*

The woman may still be pregnant at the time of death. Termination of the pregnancy prior to 20 weeks gestational age will be considered "Aborted", after that the woman will have "delivered". Please tick **ONE** option that is coherent with the estimated gestational age.

### *8.5 TIME BETWEEN DELIVERY/ABORTION AND THE MATERNAL DEATH*

In relation to delivery/abortion, when did the woman die? Before delivery or abortion, within 1 hour after delivery/abortion, within 24 hours of delivery/abortion, after 24 hours and within the first week or after 1 week and before 42 days after delivery/abortion.
Please tick **ONE** option

### *8.6 TIME AND DATE OF ADMISSION AT THE CAMP HEALTH FACILITY*

Generally, this will be the time and date of admission at a Basic Emergency Obstetrics and Newborn Care (BEmONC) or similar primary health care facility for refugee camp population.

### *8.7 NAME AND TYPE OF THE CAMP HEALTH FACILITY*

Please include the name of the health facility in which the death was recorded. Indicate what level of care was available – this may include a **health post**, a facility with **Basic Emergency Obstetric and Newborn Care Centre (BEmONC)** (including parenteral antibiotics, uterotonic drugs, anticonvulsants for pre-eclampsia and eclampsia, manual removal of placenta, removal of retained products, assisted vaginal delivery, basic neonatal resuscitation), a facility with **Comprehensive Emergency Obstetric and Newborn Care (CEmONC)** (BEmONC plus surgeries/caesarean section, safe blood transfusion). Under **OTHER** please provide the details under **SPECIFY** (e.g. if none of the above options apply or if there is a BEmONC / CEmONC facility without all services in place, for example a CEmONC facility that performs surgeries, but does not have blood transfusion facilities.)

The information will provide background on the level of care that could be expected and help identify shortcoming in capacity, staffing, supplies relevant to the health facility level.

Fill in who is responsible for the management and patient care in health facility where the maternal death occurred please select **one**: either NGO; Governmental; joint NGO – Government facility: private for profit or private not for profit.

### *8.8 TIME AND DATE OF ADMISSION AT THE REFERRAL HEALTH FACILITY*

This captures the date and time the woman arrived after having been referred, at the referral health facility. Generally, there will be referral from a BEmONC-like structure (maternity) to a CEmONC level health facility, often a district hospital. Other configurations are possible and can be explained

### *8.9 WHAT DO I HAVE TO WATCH OUT FOR IN PARTOGRAPH?*

The partograph is a key record of data taken during labour, including monitoring of maternal and foetal vital signs and advancement of labour and delivery. A correctly kept partograph can provide important input into early signs of complications and lack thereof, it can show when complications were identified, but no according action taken or that all correct action was taken, but complications escalated despite efforts. If a partograph was kept, it is part of the documentation that informs the audit.

- A partograph should be kept for every woman/girl in labour and delivery: if kept tick **Yes**
- Tick **NO** if no partograph was used for a woman/girl in labour and delivery
- Tick **N/A** if the maternal death is not related to labour and delivery and there was no indication for a partograph (e.g. antepartum bleeding, sepsis, pre-eclampsia, abortion)

**Please attach a copy of the partograph, whenever available, to your audit in every case.**

*Note: WHO has developed a Labour care guide which will likely be implemented over the next years as a development of the partograph. Where used, it should be added to the audit.*

## 9. How do I complete NEONATAL INFORMATION?

Indicate information for all babies born alive, including those who died following birth (neonatal death).

### *9.1 APGAR SCORE*

The APGAR score documents observation of newborns breathing effort, heart rate, muscle tone, reflexes and skin colour on a scale from 0-2, with 2 being the best score. The total APGAR score is 0-10 and documented at 1, 5 and 10-minutes post-partum.

In this section, please fill in the APGAR score for 1 min., 5 min, and if available in your location for 10 min. If no APGAR score was documented, e.g. in case of stillbirth, fill in N/A.

A low APGAR score and one where the baby does not recover at minute 5 or 10 indicates likely an important intrapartum foetal suffering (e.g. prolonged and or obstructed labour, high maternal blood pressure, etc. ) this may have led to the mothers death (e.g. uterine rupture, eclampsia, )

### *9.2 BIRTH WEIGHT*

Please add the birthweight of the newborn in grams. This information is important as a low birth weight and high birth weight may indicate underlying conditions of the mother e.g. diabetes is associated with macrosomia, and hypertension is associated with low birthweight etc).

### *9.3 NEWBORN CARE*

For babies who are alive, please state how the care for the baby is arranged: Family of the deceased women or her friends. For OTHER, please specify.

## 10. How do I complete CAUSE OF DEATH?

For more information see WHO recommendations

In this section please indicate the **DIRECT** cause of death. Please tick ONE box.
Worldwide, five causes are responsible for 80% of all maternal death and they are presented in the most used terms.
Find below a table which indicates how the terms in the UNHCR maternal mortality audit form related to the WHO recommendations

| UNHCR Classification | ICD-MM Classification (WHO) | Main conditions |
|---|---|---|
| **Direct causes** | | |
| **Abortion complications (Spontaneous and induced)** | 1. Pregnancies with abortive outcome | Abortion, miscarriage, ectopic pregnancy and other conditions leading to maternal death and a pregnancy with abortive outcome |
| **Hypertensive disorders** | 2. Hypertensive disorders in pregnancy, childbirth, and the puerperium | Edema, proteinuria and hypertensive disorders in pregnancy, childbirth and the puerperium |
| **Obstetric haemorrhage** | 3. Obstetric haemorrhage | Obstetric diseases or conditions directly associated with haemorrhage |
| **Pregnancy related infection** | 4. Pregnancy related infection | Pregnancy-related, infection-based diseases or conditions |
| **Other** | 5. Other obstetric complications | All other direct obstetric conditions not included in groups to 1–4 |
| **Prolonged and obstructed labour** | | |
| | 6. Unanticipated complications of management | Severe adverse effects and other unanticipated complications of medical and surgical care during pregnancy, childbirth or the puerperium |
| **Indirect causes** | | |
| **Indirect causes** | **Non-obstetric conditions**<br>Cardiac disease (including pre-existing hypertension), endocrine conditions, gastrointestinal tract conditions, central nervous system conditions, respiratory conditions, genitourinary conditions, autoimmune disorders, skeletal diseases, psychiatric disorders, neoplasms, infections that are not a direct result of pregnancy | |

### *10.1 ABORTION/MISCARRIAGE*

See above for definition

### *10.2 OBSTERIC HAEMORRHAGE*

See above for definition

### *10.3 HYPERTENSIVE DISORDER (PRE-ECLAMPSIA AND ECLAMPSIA)*

Eclampsia is characterized by seizures / convulsions as a consequence of pre-eclampsia, with onset after 20 weeks of gestation, during delivery or within 48 hours postpartum. The risk for maternal and perinatal death is high. For more information see WHO Managing eclampsia.

### *10.4 PREGNANCY RELATED INFECTION*

Sepsis: response of the body to a generalised infection. It can develop during pregnancy, during delivery, after delivery or after abortion. Sepsis is a major cause of maternal death (11 of 1000 women suffer an infection that leads or nearly leads to death (WHO). Sepsis can be prevented and treated, and maternal death related to infection is nearly entirely preventable.

### *10.5 PROLONGED/OBSTRUCTED LABOUR*

Often related to 1st, 2nd and 3rd delays prolonged/ obstructed labour is more a symptom then a cause; it can be the result of inadequate medical management and or malpresentation and is more frequent in primiparas and young women whose body has not fully developed. Main outcomes in absence of intervention are generally foetal death, and potentially uterine rupture, fistulae and maternal death. See WHO guidance

### *10.6 OTHER DIRECT CAUSES*

Please fill any other cause that directly led to the death of the mother, as detailed as possible.

## 11. How do I complete INDIRECT CAUSES OF DEATH?

In this section please outline any indirect causes of death, which are those resulting from a previous existing disease or a disease which developed during pregnancy but is not in direct correlation with obstetric causes. This may include, for example, HIV, tuberculosis, malaria, diabetes but also mental health disorders. Other pregnancy related deaths (accidents, murder incl. IPV …) are not registered as a cause of maternal mortality.

It is important to list any known indirect causes, to highlight gaps in previous health care and health programs and to allow making adjustments that avert, whenever possible, specific diseases, to avert maternal complications and adverse pregnancy outcome. See above for the ICD-MM classification.

## 12. How do I complete the HISTORY OF EVENTS?

The main factors that prevent women from receiving or seeking care during pregnancy and childbirth are: **Poverty, distance to facilities, lack of information, inadequate and poor quality services, cultural beliefs and practices.**
To improve maternal health, barriers that limit access to quality maternal health services must be identified and addressed at both health system and societal levels.
Source: WHO. https://www.who.int/news-room/fact-sheets/detail/maternal-mortality

Please reach out to family members and all relevant people, to compile a summary of the events that took place with dates and times if known. This may include, but is not limited to:

- Estimated time of onset of labour, time spent at home prior to seeking help, attended by TBA or counselled by other family/community members.
- Reason for consulting according to family/person who referred/advised/orientated the woman to the 1st health facility
- Mode of transport to the facility and attempts/time to arrange this.
- General status of patient at admission.
- Examinations and tests undertaken
- Partograph analysis (please attach if available).
- Diagnosis and detailed case management step by step.

- Health providers involved step by step (roles, no names).
- Pre-referral treatment.
- Means of transportation and supporting staff accompanying the woman.
- Treatment at the referral facility.

*Note: In this section you may also include if a herbal/traditional doctor was consulted and present during antepartum, post-partum or delivery.*

### 13. How do I complete MODELS OF DELAY?

Note that there are **three** layers of delay. Examples are additionally given in the audit form.

1. **ANY** barriers impacting the decision to seek care.
2. **ANY** barriers in reaching care
3. **ANY** barriers in receiving appropriate care at a given health facility

The information provided in this section may help to outline the wider history and timeline of the maternal death.

### 14. How do I complete the CONCLUSIONS part of the form?

Lessons learned and action to be taken, this will likely be the most important component of your maternal death review. After analysing all of the relevant information, individuals involved need to agree on key lessons learned from the process and commit to action that will improve these areas in the future. It is important to consider lessons and action related to both the community and to the health system. Please fill in all knowledge to the best of your ability and what you deem necessary for others to know. Try to formulate your actions in a SMART way, with deliverables that are specific, can be measured, are acceptable in the context, are realistic and time specific.

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### Additional Information & Further Reading

Above there are hyperlinks to click in the online version of this form and that may prove useful for your overall understanding.

- World Health Organisation [WHO], (2008*), Managing eclampsia – midwifery education module 5*. [online]. Available at: https://www.who.int/maternal_child_adolescent/documents/5_9241546662/en/
- World Health Organisation [WHO], (2020), *Female Genital Mutilation – Fact Sheet*. [online] Available at: https://www.who.int/news-room/fact-sheets/detail/female-genital-mutilation
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# Maternal Death Review (2020 revision)
# UNHCR data collection instrument

## OVERVIEW



| **Date of Maternal Death Review** | DD/MM/YYYY |
|---|---|

## 1. CONTACT DETAILS

| | |
|---|---|
| Name of person who compiled the report | |
| Title of person who compiled the report | |
| Contact (email/phone) of person who compiled the report | |

## 2. REVIEW PARTICIPANTS PRESENT AT MATERNAL DEATH AUDIT OR INVOLVED IN REVIEW OF AUDIT

| | |
|---|---|
| UNHCR health focal point | |
| Implementing partner focal point | |
| External expert | |
| Health staff involved with the patient care during the event | |
| Referral hospital staff involved | |
| Family member (include relationship to the deceased) | |
| Community / block leaders | |
| Community health workers / TBAs | |

## 3. Patient Information

| | | | | |
|---|---|---|---|---|
| First name | | | | |
| Last name | | | | |
| Status | ☐ Refugee | ☐ National | ☐ Asylum Seeker | ☐ IDP |
| Host Country | | | | |
| Nationality | | | | |
| Settlement/Camp/Urban or non-camp | | | | |
| Age | | | | |
| Gravida | | | | |
| Parity | | | | |
| Ever seen by health staff for this pregnancy? | ☐ Yes | ☐ No | | |

## 4. Previous Obstetric History

| | | | |
|---|---|---|---|
| Stillbirth | ☐ Yes | ☐ No | If yes (and available), provide number … |
| Abortion/miscarriage | ☐ Yes | ☐ No | If yes (and available), provide number … |
| Postpartum haemorrhage (PPH) | ☐ Yes | ☐ No | If yes (and available), provide number … |
| Antepartum haemorrhage (APH) | ☐ Yes | ☐ No | If yes (and available), provide number … |
| Caesarean section | ☐ Yes | ☐ No | If yes (and available), provide number … |
| Other | ☐ Yes | ☐ No | If yes, please specify … |

## 5. Antenatal Period

| | | | | | |
|---|---|---|---|---|---|
| Did she have an ANC visit? | ☐ Yes | | | ☐ No | |
| Number of ANC visits | | | | | |
| Date of last visit | DD/MM/YYYY | | | | |
| Performed by (qualification only) | ☐ Midwife | ☐ MD | ☐ Clinical Officer | ☐ Nurse | ☐ Other, explain |
| **Laboratory results (if available)** | | | | | |
| Date of last haemoglobin test | DD/MM/YYYY | | | | |
| Haemoglobin result (g/dl) | | | | | |
| Date of last blood sugar test | DD/MM/YYYY | | | | |
| Blood sugar result (mmoL/L) | | | | | |
| Date of last proteinuria test | DD/MM/YYYY | | | | |
| Proteinuria result (mg/dl) or dipstick result (negative/trace/+/++/+++) | | | | | |
| Was intermittent malaria prophylaxis (IPT) provided? | ☐ Yes | ☐ No | ☐ NA | ☐ Don't Know | |
| Was Iron and Folic Acid provided? | ☐ Yes | ☐ No | | ☐ Don't Know | |

| | | | |
|---|---|---|---|
| Risk factors ANC | ☐ Diabetes | ☐ Hypertensive disorder | ☐ HIV/AIDS |
| | ☐ Malpresentation | ☐ Antepartum Haemorrhage (APH) | ☐ FGM (class III) |
| | ☐ No risk factor | | |
| Has there been any hospitalization during this antenatal period? | ☐ Yes | ☐ No | If yes, please specify….. |
| Have any medications been prescribed during this period apart from above (Malaria prophylaxis and Iron/FolicAcid)? | ☐ Yes | ☐ No | If yes, please specify….. |

## 6. POSTNATAL PERIOD

(skip if death occurred before or during delivery)

| | | | | |
|---|---|---|---|---|
| Describe the postnatal care provided at health facility level, including time and date of discharge (if applicable). | | | | |
| Did the mother have any PNC visits following discharge from the facility or home birth? | ☐ Yes | | ☐ No | |
| Number of PNC visits | | | | |
| Were postnatal visits provided on time according to schedule? | ☐ Yes | ☐ No | ☐ NA | ☐ Don't Know |
| Symptoms/Signs during PNC (tick all that apply) | ☐ Fever | ☐ Pain | ☐ Abnormal discharge | |
| | ☐ Excessive bleeding | ☐ High blood pressure | | |

## MAIN SYMPTOMS PRIOR TO DEATH

(tick all that apply)

| | | | |
|---|---|---|---|
| ☐ Abnormal bleeding | ☐ Abnormal discharge | ☐ Fever/shivering | ☐ Severe pallor |
| ☐ Abnormal pain | ☐ Fits/convulsions | ☐ Blurred vision | ☐ Frontal headache |
| ☐ Loss of consciousness | ☐ Confusion | ☐ Prolonged/obstructed labour | ☐ Placenta retention |
| ☐ Other, specify | …. | | |

## INFORMATION ON THE CIRCUMSTANCE OF DEATH

| | | | |
|---|---|---|---|
| Estimated gestational age at time of death (weeks) | | | |
| Date of death | DD/MM/YYYY | | |
| Time of death | HH:mm | | |
| Timing of death | ☐ During pregnancy | ☐ During labour and delivery | ☐ After Delivery |

| | | | | |
|---|---|---|---|---|
| Location of death | ☐ Death before admission ***(at home)*** | ☐ Death before admission ***(on way to facility)*** | ☐ Death before discharge ***(at camp/settlement facility)*** | |
| | ☐ Death before discharge ***(during transfer to referral facility)*** | ☐ Death before discharge ***(at referral facility)*** | ☐ Death after discharge ***(outside the facility)*** | |
| Delivery outcome | ☐ Delivered | ☐ Aborted/miscarried | ☐ Still pregnant | |
| Mode of delivery | ☐ NA | ☐ Spontaneous vaginal delivery | ☐ Vacuum or forceps assisted vaginal delivery | |
| | ☐ C-section | ☐ Breech delivery | ☐ Destructive delivery | |
| Delivery outcome baby | ☐ Alive | ☐ Still birth | ☐ Neonatal death | ☐ Mother still pregnant at time of death |
| Time between delivery / abortion and maternal death (hours) | ☐ Died before delivery | ☐ Within 1 h postpartum/ post-abortion | ☐ Within 24 hrs postpartum/ post-abortion | ☐ Within 1 week postpartum/ post-abortion | ☐ Within 42 days postpartum/ post abortion |
| Condition upon admission | ☐ Stable | ☐ Critical | ☐ Dead on arrival | |
| Time and date of admission at **camp** health facility | HH:mm | DD/MM/YYYY | | |
| Name and type of camp health facility | <Name> | ☐ Health post<br>☐ BEmONC<br>☐ CEmONC<br>☐ Other | ☐ NGO<br>☐ Governmental<br>☐ Joint NGO Government facility<br>☐ Private for Profit<br>☐ Private not for Profit | |
| Time and date of admission at **referral** facility | HH:mm | DD/MM/YYYY | | |
| Was a partograph[1] used during delivery? | ☐ Yes (if yes please include a copy) | ☐ No | ☐ N/A | |
| Was the partograph correctly filled? (reviewed by the audit team) | ☐ Yes | ☐ No | ☐ Unknown | ☐ N/A |

## NEONATAL INFORMATION

(fill out for babies born **alive** and for **neonatal deaths**, check coherence with above "delivery outcome")

| | | | | |
|---|---|---|---|---|
| APGAR Score | At 1 minute … | At 5 minutes …. | At 10 minutes… | ☐ Not applicable |
| Birth weight newborn (grams) | | | | |
| If the baby is alive, indicate who assumes the newborn care | ☐ Family or friends | ☐ Other, please specify: …… | | |

[1] WHO has developed a Labour Care Guide, which will likely be implemented over the next years as a development of the partograph

## CAUSE OF DEATH

### Direct cause

| | | | | |
|---|---|---|---|---|
| ☐ Obstetric Haemorrhage | ☐ Pregnancy related hypertensive disorder | ☐ Pregnancy related infection | ☐ Prolonged/ obstructed labour | ☐ Abortion complications |
| ☐ Other, please specify …… | | | | |

### Indirect cause of death

| | |
|---|---|
| Indirect cause 1 | |
| Indirect cause 2 | |

## SUMMARY OF HISTORY OF EVENTS

The chronological narrative needs to include at least:

- Estimated time of onset of labour or signs and symptoms of complications or disease, time spent at home prior to seeking help, attended by TBA or counselled by other family/community members.
- Reason for consulting according to family or person who referred the woman to the 1st health facility
- General status of patient at entry
- Examination and test undertaken
- Partograph analysis (please attach)
- Diagnosis and detailed case management step by step
- Health providers involved step by step (roles, no names)
  Pre-referral treatment

Means of transportation and supporting staff accompanying the woman- Diagnosis and Treatment at referral facility

Type here

**Delay in deciding to seek care; barriers at family/ level**

Examples: low status of women, poor understanding of complications and risk factors in pregnancy and when to seek medical help, previous poor experience of health care, acceptance of maternal death, financial implications and perceived complications from going to clinic (e.g. contracting COVID, getting a C-section, bad reputation of clinic)

| | |
|---|---|
| Factor 1 | |
| Factor 2 | |
| Factor 3 | |

**Delay in reaching care**

Examples: Distance to health centres and hospitals, availability and cost of transportation, poor roads and infrastructure, geography (e.g. mountains/rivers)

| | |
|---|---|
| Factor 1 | |
| Factor 2 | |
| Factor 3 | |

**Delay in receiving appropriate care at health facility**

Examples: Poor facilities and lack of medical supplies/equipment, inadequately trained and poorly motivated medical staff, inadequate referral systems) Fill for all facilities that the woman attended.

| | |
|---|---|
| Factor 1 | |
| Factor 2 | |
| Factor 3 | |

## CONCLUSIONS

| | **Lessons learned** | **Actions to be taken** | **Responsible person or organization** (be specific) | **Timeline** (be specific) |
|---|---|---|---|---|
| **Conclusion 1** | | | | |
| **Conclusion 2** | | | | |
| **Conclusion 3** | | | | |
| **Conclusion 4** | | | | |
| **Conclusion 5** | | | | |