



# Global Maternal Health

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## Objectives:

- Understand the maternal health issues globally
- Understand the causes of maternal deaths and mortality
- Understand the interventions done globally to decrease maternal deaths and morbidity
  - Antenatal care
  - Promotion of breast feeding practices.....BFHI

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Important | Extra | Notes

[Editing file](#)

# Maternal health

## Definition:

Maternal health refers to the health of women during pregnancy, childbirth and the postpartum period.

## Facts:

- Maternal mortality is higher in women living in rural areas and among poorer communities. *Due to lack of health surfaces*
- Young adolescents face a higher risk of complications and death as a result of pregnancy than other women.
- Skilled care before, during and after childbirth can save the lives of women and newborn babies.

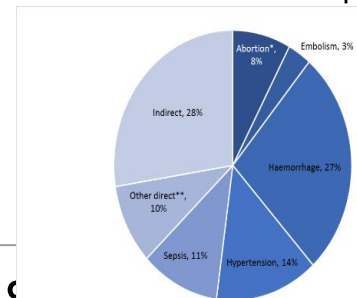
**Maternal death** (death of women while pregnant) accidental causes of death not classified as maternal death *(so if pregnant lady died due to gunshot this is not maternal death)*

## Why women die (Maternal mortality fell by almost half between 1990 and 2015)

### Major complication account for 75% of all maternal deaths:

1. **severe bleeding** which will lead to severe anemia **(mostly bleeding after childbirth)** so to prevent it, make sure to clamp the cord from the two ends and make sure all the placenta remnant is spelled out
2. infections (usually after childbirth) *may be comes from the forceps*
3. high blood pressure during pregnancy (pre-eclampsia and eclampsia)
4. complications from delivery
5. unsafe abortion

Other: malaria ,AIDS, during pregnancy



### Delay in decision to seek care:

- Lack of understanding of complications
- Acceptance of maternal death
- Low status of women<sup>1</sup>
- Socio-cultural barriers to seeking care *(e.g. lack of female doctors)*

<sup>1</sup> *in some countries the women cannot leave the house until the husband approve*

### Delay in reaching care:

Mountains, islands, rivers — poor organization *which will delay reaching to the hospital so the mother will die on the way*

### Delay in receiving care:

- Supplies, personnel
- Poorly trained personnel with punitive attitude
- Finances

## Maternal mortality indicator

### Maternal mortality ratio:

Number of maternal death per live births  
(Maternal death / live birth)

Still birth, abortions are excluded

### Maternal mortality rate:

Number of maternal death in given period per population of women in reproductive age

(Maternal deaths / women in rep age)

Reproductive age: 15 -45

### Life time risk of maternal mortality =

(N of maternal deaths over the reproductive life span) / (women entering the reproductive period)

### Proportion maternal = proportion of all female deaths due to maternal causes =

(N of maternal deaths in a period/Number of all female deaths in same period) \* 100

## Successful Interventions for Maternal Care (important for OSCE)

### Antenatal care (taking care of pregnant woman before, during and after birth):

- **Nutrition support** (what to eat, how much, how to take the calories. To prevent anemia)
- Personal hygiene, dental care, rest (2 hrs) and sleep (8 hrs), **regular bowel habits..enough fiber and fruit intake...avoid constipation** (cuz with constant constipation there will be hemorrhoid and unseen bleeding during delivery)
- Immunization (mother and the newborn) tetanus vaccination is the most important for the mother
- Drugs; thalidomide (deformed hands), corticosteroids (impair fetal growth), streptomycin (8th nerve damage)
- Education on delivery and care of the newborn
- Identifying high risk pregnancies, smoking and exposure to passive smoking
- Emphasizing on ANC visits and maintenance of (antenatal) AN card
- **Importance and management of lactation**

### Why is ANC is critical?

- Reduces complications from pregnancy and childbirth
- Reduces stillbirths and perinatal deaths
- Integrated care delivery throughout pregnancy

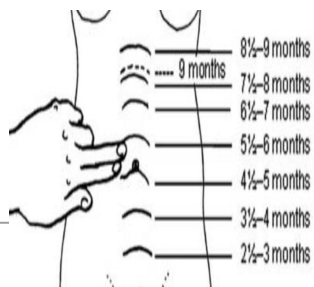
## Antenatal care (important for OSCE)

### History (first visit)

- Confirm the pregnancy (usually they come complaining of absent period)
- Any previous complications (abortions, stillbirths)
- Calculate expected day of birth **EDB** (add 9 months and 7 days to the first day of last menstruation) and record it on AN card. This is an estimation, you will use US to be more accurate
- Record symptoms (fever, vomiting, vaginal delivery, palpitation, easy fatigability,
- Any concurrent illness; asthma, heart disease, jaundice, HTN, DM, TB, STDs, HIV, blood and bleeding disorders
- Family history of twins, congenital malformations
- History of drug allergies, or drugs

### Abdominal exam:

Fundal height: use your 2 fingers to palpate the head, start just below the breast until you reach the head.



If the head at the symphysis pubis then it is the 2-3<sup>rd</sup> month of pregnancy. If you feel the head at the umbilicus then it is the 5-6<sup>th</sup> month. If you feel just below the breast then it is 8<sup>th</sup> month

### Ultrasound:

- Fetal assessment
- One ultrasound scan before 24 weeks of gestation (early ultrasound) is recommended for pregnant women to estimate gestational age

### Physical exam:

- General physical; pallor, pulse,
- respiratory rate, edema (slight edema is normal, if co-existent with any diseases like HTN, referral) when do you need to be concerned for abnormal edema? If the lady told you her ring is stuck and can't go up and down.
- **BP (every visit)** (2 readings > 140/90 in one sitting)
- **Dipstick urine +2 albumin**
- High BP + albuminuria = preeclampsia → refer
- Weight it should be 9-11 kg during pregnancy. Approx. 2 kg /month. If the lady gaining more weight then you need to investigate for the cause (DM, polyhydramnios)
- Cardiovascular (check for any murmur specially mitral stenosis)
- Breast exam to prepare for lactation, usually ladies come with retracted nipple, so ask her to pull her nipple slightly everyday until the nipple comes to its normal position

### Assessment of gestational age:

- Routine US + LMP (history)
- Lab investigations: Pregnancy test, Hb estimation, Urine for albumin and sugar, blood grouping, Rh factor, VDRL, **HIV testing, Blood sugar, HBsAg for Hep B**

### Antenatal care counseling:

- Nutritional recommendations
- Daily oral iron and folic acid supplementation with 30 mg to 60 mg of elemental iron and 400 µg (0.4 mg) of folic acid is recommended for pregnant women to prevent maternal anaemia, puerperal sepsis, low birth weight, and preterm birth. **Simple advice is to ask the mum to take 7 dates, red peens, red meats, green vegetables**

### Antenatal care:

- Maternal assessment  
Hyperglycaemia first detected at any time during pregnancy should be classified as either gestational diabetes mellitus (GDM) or diabetes mellitus in pregnancy.

### Preventive services:

- A seven-day antibiotic regimen is recommended for all pregnant women with asymptomatic bacteriuria
- **Tetanus toxoid vaccination** is recommended for all pregnant women,

### Tetanus vaccination (for the first pregnancy or non vaccinated pregnant lady):

Table 2 Guidelines for tetanus toxoid immunization of women who were immunized during infancy, childhood or adolescence<sup>b</sup>

Age at last vaccination	Previous immunizations (based on written records)	Recommended Immunizations	
		At present contact/pregnancy	Later (at intervals of at least one year)
Infancy	3 DTP	2 doses of TT/Td (min.4 weeks interval between doses)	1 dose of TT/Td
Childhood	4 DTP	1 dose of TT/Td	1 dose of TT/Td
School age	3 DTP + 1 DT/Td	1 dose of TT/Td	1 dose of TT/Td
School age	4 DTP + 1 DT/Td	1 dose of TT/Td	None
Adolescence	4 DTP + 1 DT at 4-6 yrs + 1 TT/Td at 14-16 yrs	None	None

<sup>b</sup> Adapted from: Galazka AM. *The immunological basis for immunization series. Module 3: tetanus.* Geneva, World Health Organization, 1993 (WHO/EPI/GEN/93.13), page 17.

Table 1 Tetanus toxoid immunization schedule for women of childbearing age and pregnant women without previous exposure to TT, Td or DTP<sup>a</sup>

Dose of TT or Td (according to card or history)	When to give	Expected duration of protection
1	At first contact or as early as possible in pregnancy	None
2	At least 4 weeks after TT1	1-3 years
3	At least 6 months after TT2 or during subsequent pregnancy	At least 5 years
4	At least one year after TT3 or during subsequent pregnancy	At least 10 years
5	At least one year after TT4 or during subsequent pregnancy	For all childbearing age years and possibly longer

<sup>a</sup> Source: *Core information for the development of immunization policy. 2002 update.* Geneva, World Health Organization, 2002 (document WHO/V&B/02.28), page 130.

## Common physiological symptoms

Ginger, chamomile, vitamin B6 and/or acupuncture are recommended for the **relief of nausea** in early pregnancy, Advice on diet and lifestyle is recommended to prevent and relieve **heartburn** in pregnancy

Magnesium, calcium or non-pharmacological treatment options can be used for the relief of leg **cramps** in pregnancy, **Regular exercise** throughout pregnancy is recommended to prevent **low back and pelvic pain**.

**Wheat bran or other fibre** supplements can be used to relieve constipation in pregnancy if the condition fails to respond to dietary modification,

Non-pharmacological options, such as compression stockings, leg elevation and water immersion, can be used for the management of varicose veins and oedema in pregnancy, based on a woman's preferences and available options.



# The TEN STEPS to Successful Breastfeeding

## 2 STAFF COMPETENCY

Hospitals support mothers to breastfeed by...

- Training staff on supporting mothers to breastfeed
- Assessing health workers' knowledge and skills

## 3 ANTENATAL CARE

Hospitals support mothers to breastfeed by...

- Discussing the importance of breastfeeding for babies and mothers
- Preparing women to care for their baby

## 1 HOSPITAL POLICIES

Hospitals support mothers to breastfeed by...

- Not promoting infant formula, bottles or teats
- Making breastfeeding care standard practice
- Keeping track of support for breastfeeding

## 4 CARE RIGHT AFTER BIRTH

Hospitals support mothers to breastfeed by...

- Encouraging skin-to-skin contact between mother and baby soon after birth
- Helping mothers to put their baby to the breast right away

## 5 SUPPORT MOTHERS WITH BREASTFEEDING

Hospitals support mothers to breastfeed by...

- Checking positioning, attachment and suckling
- Giving practical breastfeeding support
- Helping mothers with common breastfeeding problems

## 6 SUPPLEMENTING

Hospitals support mothers to breastfeed by...

- Giving only breast milk unless there are medical reasons
- Prioritizing donor human milk when a supplement is needed
- Helping mothers who want to formula feed to do so safely

## 7 ROOMING-IN

Hospitals support mothers to breastfeed by...

- Letting mothers and babies stay together day and night
- Making sure that mothers of sick babies can stay near their baby

## 8 RESPONSIVE FEEDING

Hospitals support mothers to breastfeed by...

- Helping mothers know when their baby is hungry
- Not limiting breastfeeding times

## 9 BOTTLES, TEATS AND PACIFIERS

Hospitals support mothers to breastfeed by...

- Counsel mothers on the use and risks of feeding bottles, teats and pacifiers

## 10 DISCHARGE

Hospitals support mothers to breastfeed by...

- Referring mothers to community resources for breastfeeding support
- Working with communities to improve breastfeeding support services



## BREASTFEEDING | THE GOAL

By 2025, increase to at least 50% the rate of exclusive breastfeeding in the first six months

### WHY IT MATTERS



Babies who are fed **nothing but breastmilk** from birth through their first 6 months of life get the **best start**



Exclusive breastfeeding provides babies: **the perfect nutrition** & everything they need for healthy growth and brain development.



**Protection** from respiratory infections, diarrhoeal disease, and other **life-threatening ailments**



Protection against **obesity & non-communicable diseases** such as asthma and diabetes.

Updated October 2018

### RECOMMENDED ACTIONS

#### LIMIT FORMULA MARKETING

**WHAT?** Significantly limit the marketing of breastmilk substitutes

**HOW?** Strengthen the monitoring, enforcement and legislation related to the International Code of Marketing of Breastmilk Substitutes



#### SUPPORT PAID LEAVE

**WHAT?** Empower women to exclusively breastfeed

**HOW?** Enact six-months mandatory paid maternity leave and policies that encourage women to breastfeed in the workplace and in public



#### STRENGTHEN HEALTH SYSTEMS

**WHAT?** Provide hospital and health facilities-based capacity to support exclusive breastfeeding

**HOW?** Expand and institutionalize the baby-friendly hospital initiative in health systems



#### SUPPORT MOTHERS

**WHAT?** Provide community-based strategies to support exclusive breastfeeding counselling for pregnant and lactating women

**HOW?** Peer-to-peer and group counselling to improve exclusive breastfeeding rates, including the implementation of communication campaigns tailored to the local context



### SCOPE OF THE PROBLEM

Globally, only **41% of infants** are exclusively breastfed



Suboptimal breastfeeding contributes to more than **800,000** infant deaths



Countries lose more than **\$300 billion annually** because of low breastfeeding rates



**1- You asked to train the health care providers in your area on the benefits of breastfeeding**

**What is the duration of exclusive breastfeeding as recommended by WHO**

- A- 2 months
- B- 4 months
- C- 6 months
- D- 8 months

C

**2 -Which of the following is among the 4 pillars of the WHO model for safe motherhood?**

- A- family counseling
- B- family planning
- C- family therapy
- D- family advocating

B(ANC, clean and safe delivery, emerg obst,car,family planing)

**3 -What is the recommended vaccine for pregnant women?**

- A- syphilis
- B- malaria
- C- rubella
- D- tetanus

D

**4- What is the major cause of maternal death worldwide?**

- A- infection
- B- hemorrhage
- C- unsafe abortion
- D- obstructed labor

B

**5- What of the following is the definition for the maternal mortality ratio?**

- A- number of maternal deaths per live births
- B- number of maternal deaths per population of women at reproductive age
- C- number of maternal deaths per number of females entering their reproductive age
- D- Number of maternal death in given period per population of women in reproductive age

A

Good luck!

