



Maternal and child health(MCH)



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What is Maternal and Child Health (MCH)??

Maternal and Child Health (MCH) is a comprehensive package of health care services that promotes the well-being of mothers (15–49 years) and children (0–5 years), addressing their preventive, curative, and rehabilitative needs before, during, and after childbirth.

The dramatic improvement in maternal and child health is one of the most significant achievements of 20th-century public health, reflecting advances in care for mothers and young children.





Key **Objectives** of MCH:



- Provide **basic maternal and child health care** for all.
- Reduce *maternal and child mortality and morbidity*.
- Prevent malnutrition.
- **Regulate fertility**: Reduce unwanted pregnancies and promote healthy childbirth through reproductive health education and effective contraceptive use.
- Ensure **the birth of a healthy child**
- Promote **healthy growth and development** of children.



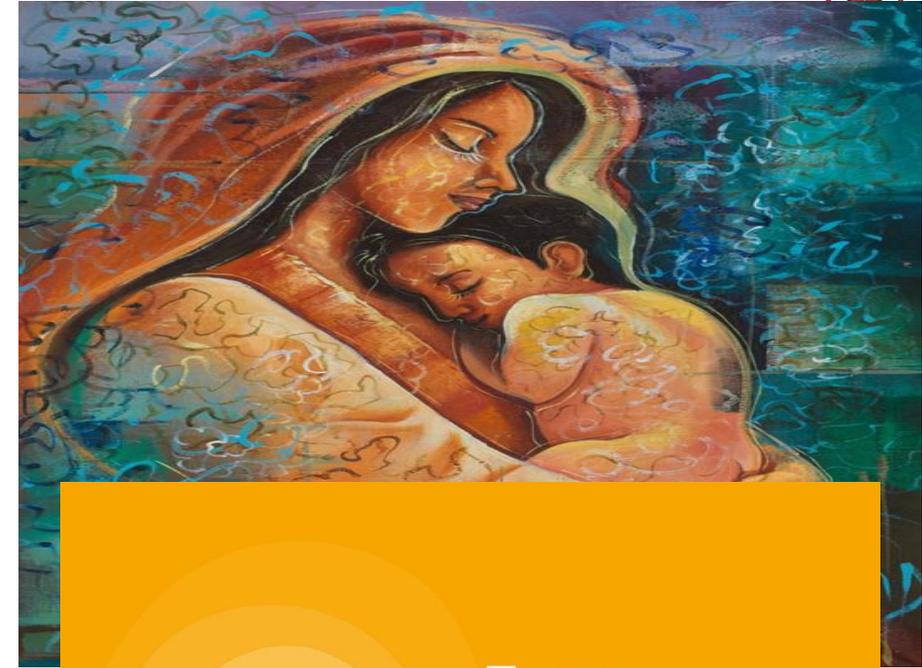
Key Objectives of MCH:



- Reduce the incidence and prevalence of sexually transmitted infections (STIs), in order to reduce the transmission of HIV infection and reduce cervical cancer.
- Reduce **Female Genital Mutilation (FGM)** and provide care for affected females.
- **Reduce domestic and sexual violence** and ensure proper care for victims.

Why Are Special Services Needed for Women and Children?

- **Large Population:** Mothers and children make up over two-thirds of the world's population.
- **High-Risk Groups:** Maternal, perinatal conditions, and childhood diseases significantly add to the global disease burden.
- **Interrelated Health:** The health of mothers and children is connected. Problems in one often affect the other, needing integrated care.
- **Opportunities for Prevention:** Special interventions such as antenatal care, nutritional supplements during pregnancy, and vaccinations protect both mother and child from disease and complications.



Every 7 seconds,
a woman or newborn dies, or a baby is lost to stillbirth

Most of these deaths are preventable with quality healthcare before, during and after childbirth

World Health Organization **75** HEALTH FOR ALL

Why Are Special Services Needed for Women and Children?

- **Early Diagnosis & Care:** Early detection and treatment of complications in mothers and children are essential to preventing mortality and serious health issues.
- **Skilled Care at Delivery:** Having skilled healthcare professionals during childbirth ensures the safety of both mother and child, particularly in high-risk situations.

Health Status of Mother and Child are Prime Indicator of Assessing Health Situation of a Country

Inequalities across borders and within countries threaten newborn health



The highest rates of maternal and newborn deaths and stillbirths are found in Africa and Asia

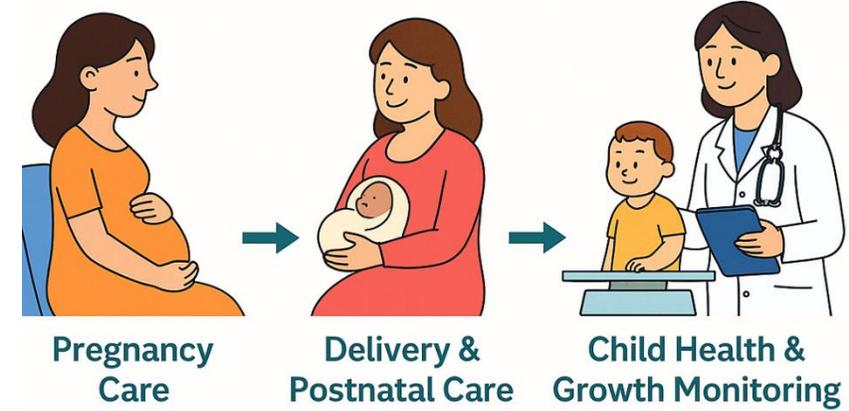


Why Are Special Services Needed for Women and Children?



- **Operational Convenience:** Family health services that integrate care for both mother and child ensure continuous and comprehensive support from pregnancy through childhood.
- **Human Rights:** Improving maternal, reproductive, and child health is part of the human right to health, and progress depends on improvements both inside (e.g., skilled care, immunization) and outside (e.g., education, poverty reduction, participation in workforce, Maternity leave) the healthcare sector.

Operational Convenience



Same clinic
Integrated

Why invest in reproductive health?
LONG-TERM BENEFITS

Family health
child ensure

The Importance of Maternal and Child Care Advocacy



Global Burden of Maternal and Child Health Issues:

- In developing countries, complications of pregnancy and childbirth are the leading cause of death among women aged 15-49.
- 40 % of pregnancies face complications or disabilities for mother/child.
- 80 % of maternal deaths are preventable.

More than **1/3 of women** experience **LONG-TERM HEALTH PROBLEMS** after childbirth including:

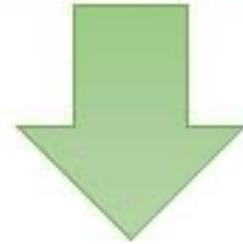
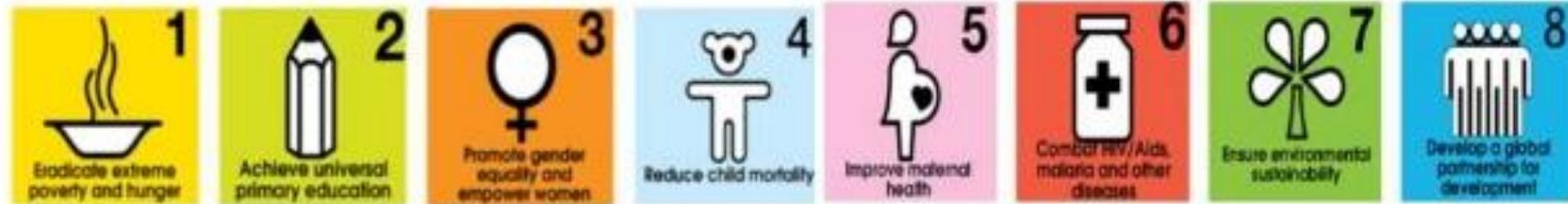
Health Problem	Percentage
Pain during sexual intercourse	35%
Low back pain	32%
Anxiety	9-24%
Depression	11-17%
Incontinence	8-31%
Secondary infertility	11%
Perineal pain	11%
Fear of childbirth (tokophobia)	6-15%

Women need access to high-quality care from providers that listen to their concerns and meet their needs.

From MDGs to SDGs



MDGs

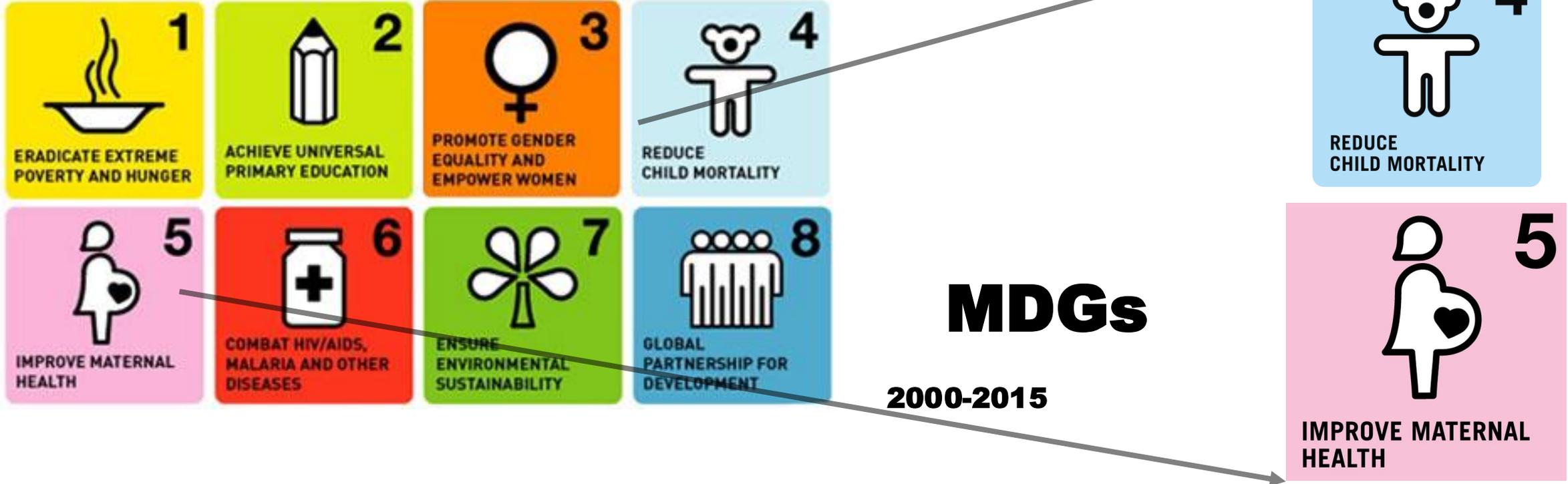


SDGs



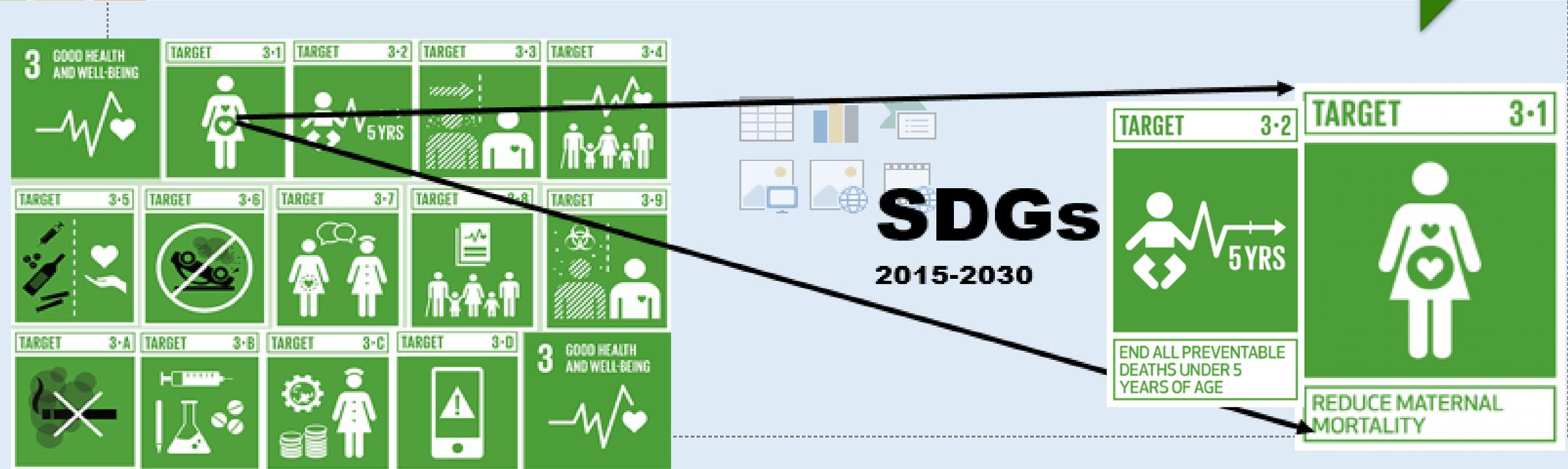


From MDGs to SDGs



- **Target 4:** Reduce the under-five mortality rate (U5MR) by **two-thirds** between 1990 and 2015.
- **Target 5.A:** Reduce the maternal mortality ratio by 75% between 1990 and 2015.
- **Target 5.B:** Achieve universal access to reproductive health by 2015.

The global effort to reduce maternal mortality continues with SDG 3.1.



Target 3.1 Reduce maternal mortality to less than 70 per 100,000 live births by 2030.

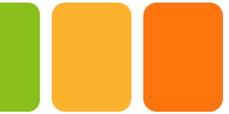
Target 3.2: End preventable deaths of newborns and children under five years of age, with all countries to 12 per 1,000 live births and under-five mortality to 25 per 1,000 live births
By 2030,

The SDGs expanded maternal health to include child survival and quality of care.



Components of MCH
services :

- **Maternal Health**
- **Child Health**
- **Family Planning**



MATERNAL HEALTH:



Maternal health care includes care for women during pregnancy, childbirth, and the postpartum period. It also covers treatment for childless couples.



What is a maternal death?

- A maternal death is the death of a woman while pregnant or within **42 days** of termination of pregnancy, from any cause related to or aggravated by the pregnancy or its management, regardless of the pregnancy's site or duration.
- **500,000 women** die each year due to pregnancy-related causes worldwide.
- Maternal deaths are categorized as either **direct or indirect** obstetric deaths.



Direct Obstetric Deaths:

- Direct obstetric deaths result from complications during pregnancy, labor, or the postpartum period.
 - There *are five major causes* of maternal mortality, especially in the developing countries. These are:
 1. • Haemorrhage (Usually occurring postpartum) 
 2. • Infection (Sepsis)
 3. • Hypertensive disorders of pregnancy (Eclampsia)
 4. • Obstructed labour
 5. • Unsafe Induced Abortion
- as well as interventions, omissions, incorrect treatment, or events resulting from any of these.



Indirect obstetric deaths:

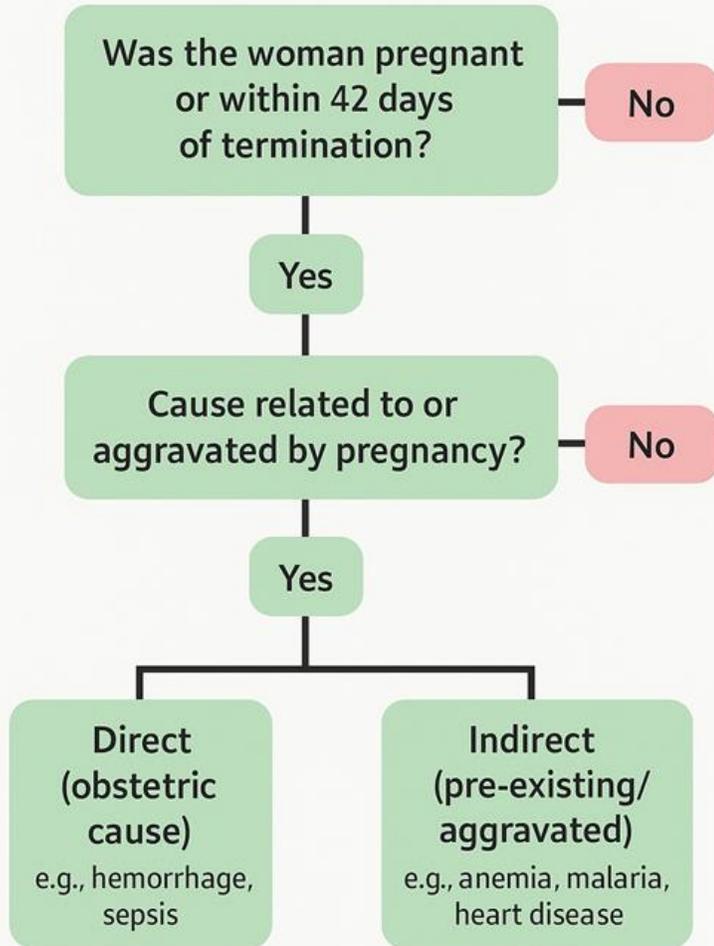


Indirect obstetric deaths result from pre-existing diseases or diseases arising during pregnancy that are **not directly caused by pregnancy** but are aggravated by the physiological effects of pregnancy. Common examples include malaria, anemia, HIV/AIDS, Chronic respiratory or renal conditions and cardiovascular disease.

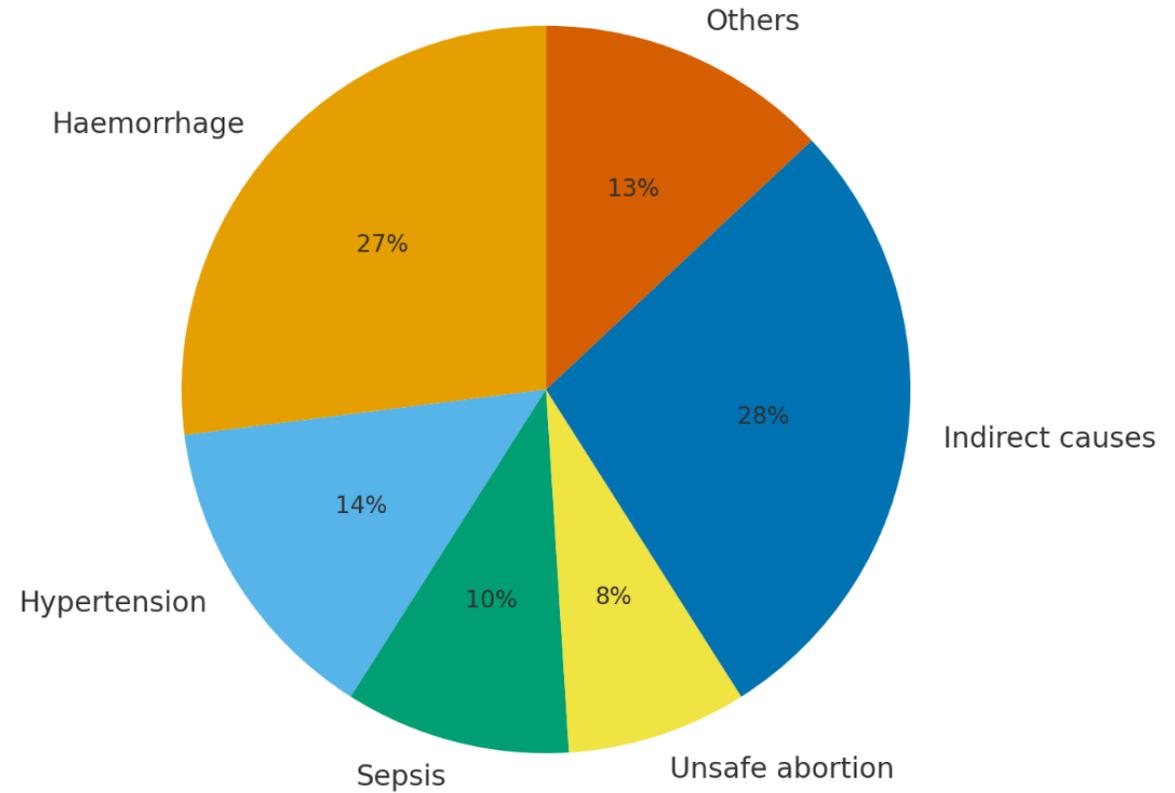


MATERNAL DEATH

– QUICK DECISION FLOW



Main Global Causes of Maternal Deaths (WHO 2023)





Risk factors for Maternal mortality and morbidity:

Biological Factors:

Maternal age: ≤ 18 years or ≥ 35 years

Height: < 145 cm (small or inadequate pelvis)

BMI: > 30 (obesity) or < 18 (underweight)

Obstetric and Medical History:

Parity: > 4 , multiple pregnancy, Birth interval < 2 years.

Pregnancy Complications: Previous miscarriage, stillbirth, or postpartum hemorrhage, delivery of low-birth-weight infants

Pre-existing Medical and Health Conditions: Malnutrition and anemia, cardiovascular disease, obesity, diabetes, UTI, epilepsy, asthma, Mental health disorders or substance use

Socioeconomic and Lifestyle Factors:

Lower education levels and socioeconomic status

Lifestyle factors: current or former smoker

Other social causes: intimate violence, social roles, etc

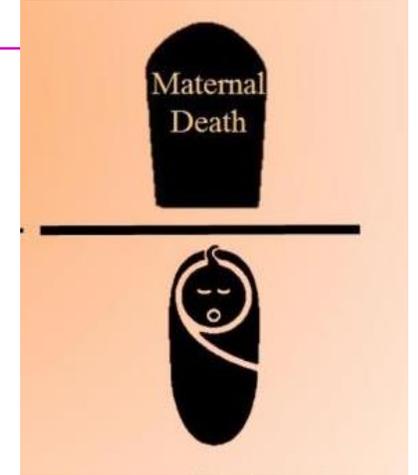
Measurement of Maternal Mortality



1) Maternal mortality ratio:

The number of deaths of women due to pregnancy and childbirth related complications per 100 000 live births =

$$\frac{\text{Total maternal deaths occurring in one year}}{\text{Number of live births occurring in same year}} \times 100\ 000 \text{ live births}$$

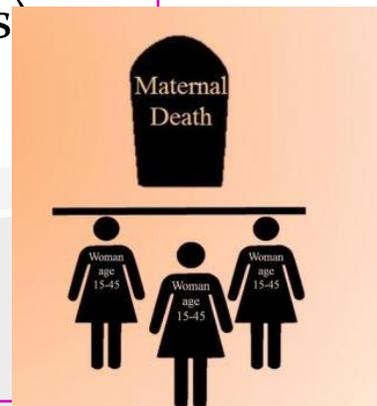


2) Maternal mortality rate:

The number of maternal deaths per 100,000 women of the reproductive age (15- 49 years)

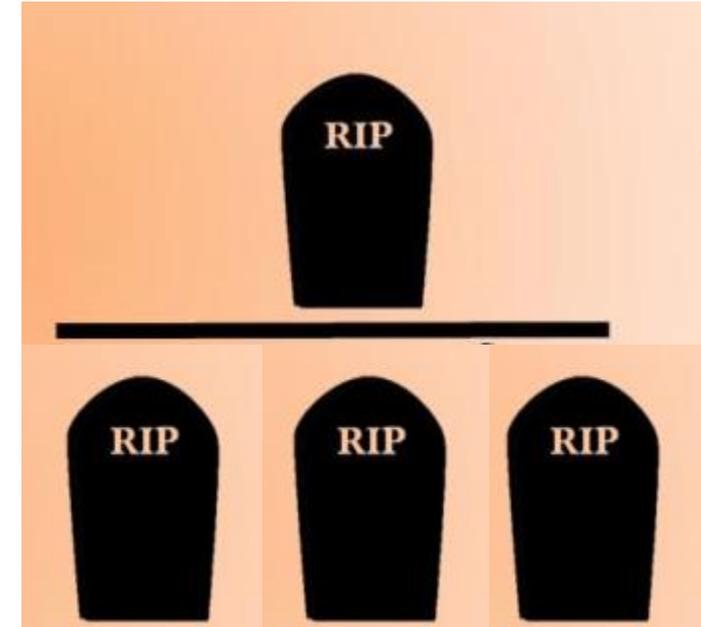
$$\frac{\text{Total maternal deaths occurring in one year}}{\text{Number of women 15-49 y in same year}} \times 100\ 000$$

High fertility rates increase the risk that a woman will die from maternal causes



3) Proportionate mortality rate:

Proportionate mortality rate (PMR), also known as the cause-specific mortality rate, used to describe the proportion of deaths in a specific population due to a particular cause or condition over a defined period.
Expressed as a percentage.



$$\text{PMR} = \left(\frac{\text{Maternal deaths from a specific cause in a period}}{\text{Deaths of women of reproductive age in the same period}} \right) \times 100$$

Example: If 50 maternal deaths are due to hemorrhage, and there are 500 total deaths among women of reproductive age in that period:

$$\text{PMR} = (50/500) \times 100 = 10\%$$

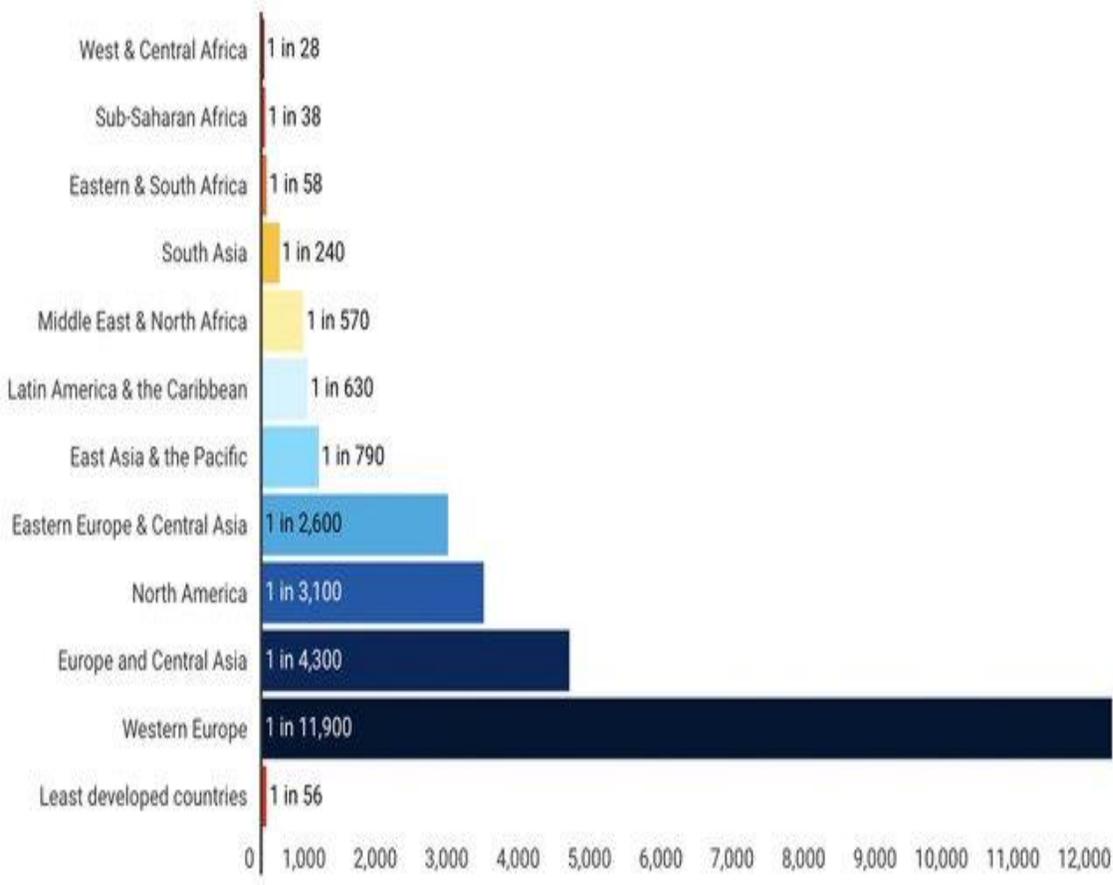
4) Peri-natal mortality rate

- The number of stillbirths and early neonatal deaths (within the first 7 days of life) per 1,000 total births in a specific year and location.
- **Still birth** is complete expulsion of a product of conception after the age of fetal viability (20-28 weeks gestation) that shows no signs of life (no breathing, heartbeats, or voluntary muscle movement).

$$\text{Peri-natal mortality rate} = \frac{\text{No. of stillbirths} + \text{early neonatal deaths in a certain year and location}}{\text{Total births (still and live births) in the same year and location}} \times 1000$$

- **Example:** If there were 10 stillbirths and 5 early neonatal deaths among 5,000 births in one year: Peri-natal mortality rate = $10 + 5 / 5000 \times 1000 = 3$ deaths per 1000 births
- ✓ Reflects the quality of prenatal care and healthcare access
- ✓ Measures the health status of pregnant women and newborns
- ✓ Assesses the effectiveness of interventions to reduce stillbirths and neonatal deaths





5. Lifetime risk of maternal death

- Lifetime risk of maternal death considers both the probability of becoming pregnant and the risk of dying from pregnancy-related causes over a woman's reproductive years;
- **1 in X. Example: The lifetime risk of maternal death ranges from 1 in 5,400 in high income countries to 1 in 45 in low income countries**
- Helps identify regions with high maternal mortality risk.
- It takes into account both the maternal mortality ratio and the total fertility rate (average number of births per woman during her reproductive years under current age-specific fertility rates).
- In high-fertility settings, women face the risk of maternal death multiple times, increasing their lifetime risk. In low-fertility settings, the risk is lower due to fewer pregnancies.

How Do These Women Die?

Three Delays Model



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Delay in decision to seek care:

- Women's low social status.
- Poor understanding of complications and risk factors in pregnancy and when to seek medical help
- Negative past experiences with health care
- Cultural or familial acceptance of maternal risks.
- Financial barriers



Delay in reaching care:

- Distance to health centres and hospitals
- Lack of affordable transportation.
- Poor roads and infrastructure.
- Geographic barriers (mountains, rivers).



Delay in receiving care:

- Poor facilities and lack of medical supplies
- Shortage of staffed and trained health workers
- Inadequate referral systems

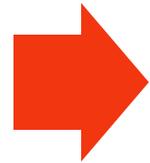


Before it's too late.

Components of Maternal care



Antenatal care
services
(ANC)



(Natal)
Delivery care
services



Postnatal care
services
(PNC)





- Thank you Questions?