Maternal and child health(MCH)

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Definition:

- **Maternal and child health (MCH)** :

A package of comprehensive health care services which are developed to meet promotive, preventive, curative, rehabilitative needs of **mothers** (in their reproductive age groups, i.e., 15 – 49 years of age) before (pregnancy), during and after delivery and of **children** (infants and pre-school children from birth to five years).

One of the greatest achievements of public health in the twentieth century was the dramatic improvement in the health of mothers and children.

Objectives of MCH

- Provide *basic* maternal and child health care to all mothers and children.
- Promote and protect health of mothers and children. (through expanded use of fertility regulation methods, adequate antenatal coverage, and care during and after delivery)
- Reduce maternal mortality and morbidity.
- Reduce child's mortality and morbidity.
- Prevent malnutrition.
- To reduce the incidence and prevalence of sexually transmitted infections (STIs), in order to reduce the transmission of HIV infection and reduce cervical cancer.

Maternal & Child Health

Objectives of MCH

- Regulate fertility (reduce unwanted pregnancies and have “healthy” children when desired through sex education and the wider use of effective contraceptives.).
- Ensure the birth of a healthy child
- Encourage healthy growth and development of children.
- To reduce female genital mutilation (FGM) and provide appropriate care for females who have already undergone genital mutilation.
- To reduce domestic and sexual violence and ensure proper management of the victims.

Why special services for women and children?1

- Mothers and children make up over 2/3 of the whole population worldwide.
- *High-risk groups* – maternal and perinatal conditions + childhood diseases make a substantial contribution to burden of disease.
- *Interrelated problems* – the health of the mother and their children are closely related.
- *Opportunities for prophylaxis* – some specific health interventions together protect pregnant women and their children, e.g. nutritional supplement during pregnancy, tetanus toxoid immunization.

Why special services for women and children?2

■ *Early diagnosis* – for both mother and child, early detection and treatment of complications is an important approach for preventing serious complications and death.

■ C*ritical care at delivery* – because both the mother and the baby are at high risk during childbirth, it is essential for the delivery to be managed by a skilled person.

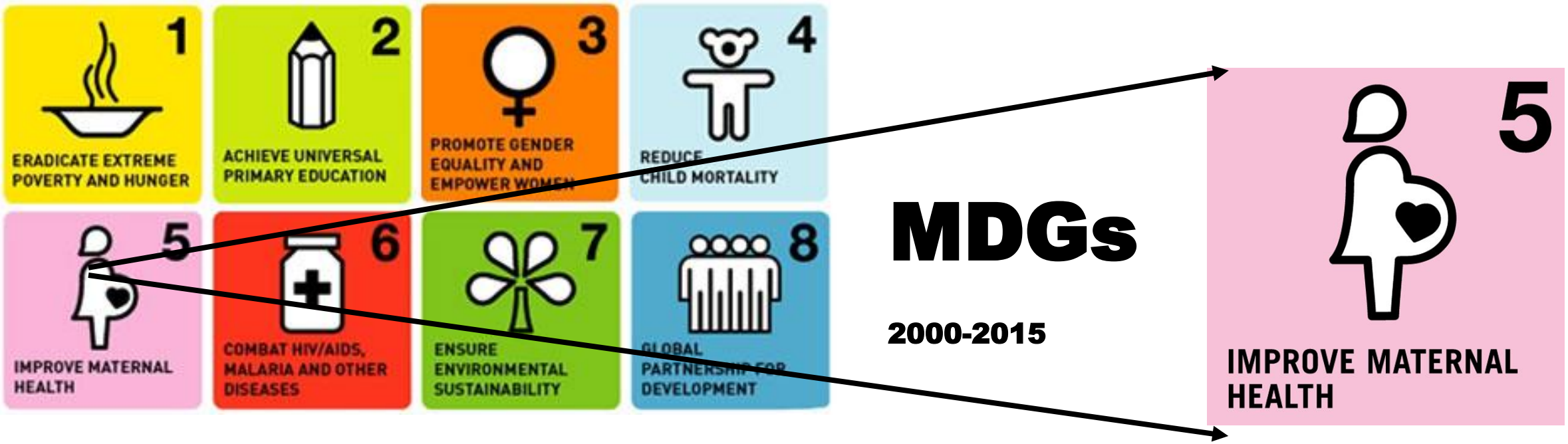
■ *Operational convenience* – family health services can provide continuity of care of the child from the womb, together with the care of the mother (at one place).

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

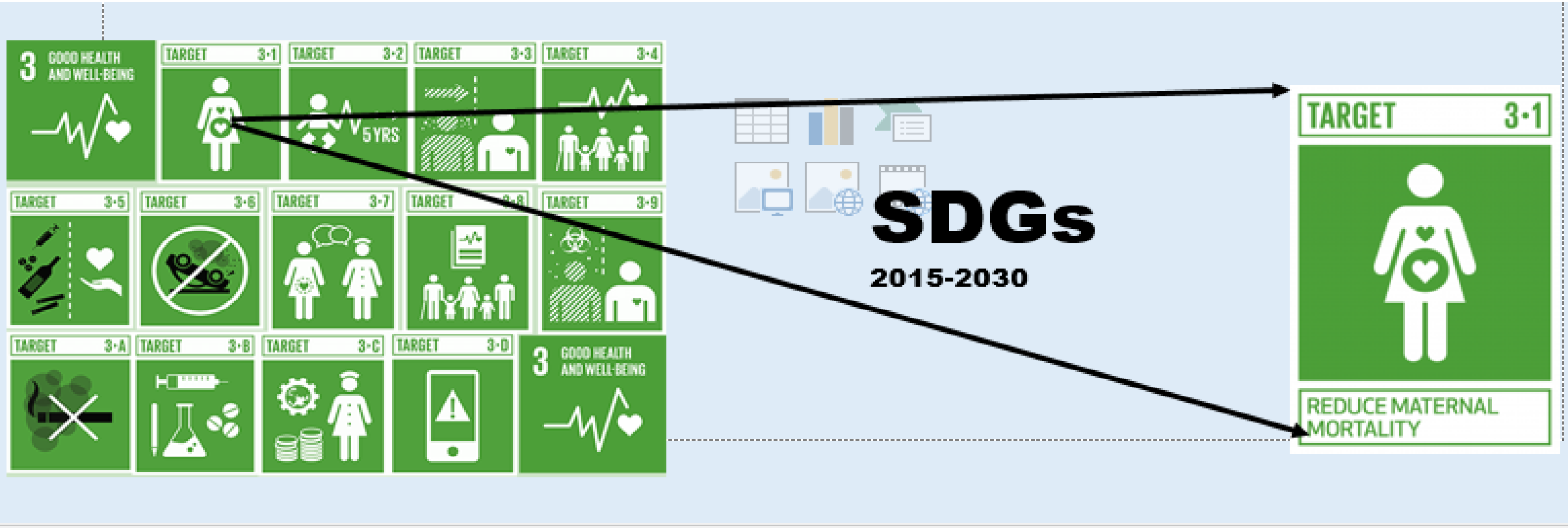
- Improving maternal, reproductive and child health is part of **"the right to health".**
- Level and Progress in MCH depends on a country's capacity to achieve improvements (Inside and Outside the health sector).
- Health sector improvements include: immunization, family planning, skilled birth attendance and the provision of antenatal, delivery and postnatal care, improved maternal and child nutrition, decrease discrimination in access to healthcare.
- Improvements outside the health sector include: reductions in the total fertility rate, economic development, the participation of women in politics and in the workforce, Maternity leave, poverty reduction, female education, reduce violence against women and children and good environmental management

Burden of MC health issues:

- **In many developing countries, complications of pregnancy and childbirth are the leading causes of death among women of reproductive age.**
- **Over 40% of the pregnancies in developing countries result in complications, illnesses, or permanent disability for the mother or child.**
- **About 80% of maternal deaths are directed obstetric deaths.**



Target 5.A. Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio
Target 5.B. Achieve, by 2015, universal access to reproductive health



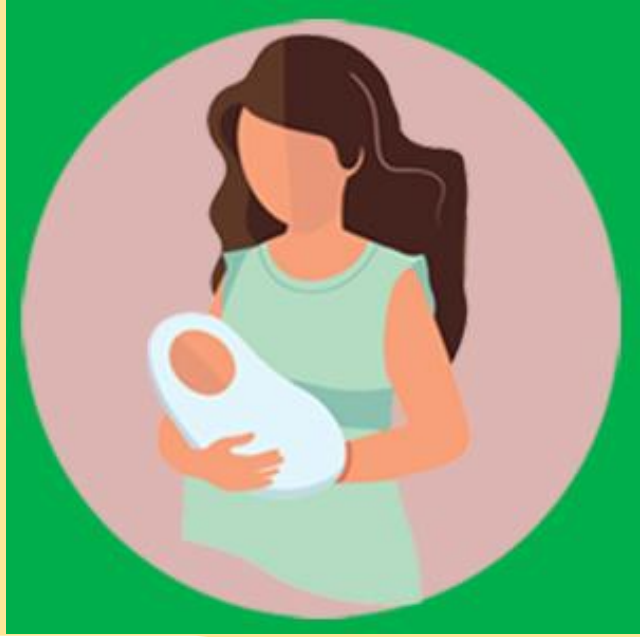
3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100 000 live births.

INTRODUCTION

Components of MCH services include:

- Maternal health;
- Child health;
- Family planning.

MATERNAL HEALTH:



Maternal health care include care of women during pregnancy, child birth and after child birth. It also includes treatment of 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, regardless of the site or duration of pregnancy, from any cause related to or aggravated by the pregnancy or its management.**
- Globally, an estimated 500,000 women die as a result of pregnancy each year.
- Maternal deaths are subdivided into **direct** and **indirect** obstetric deaths.

DIRECT OBSTETRIC DEATHS: result from obstetric complications of pregnancy, labour, or the postpartum period.

- There *are five major causes* of maternal mortality, especially in the developing countries. These are :

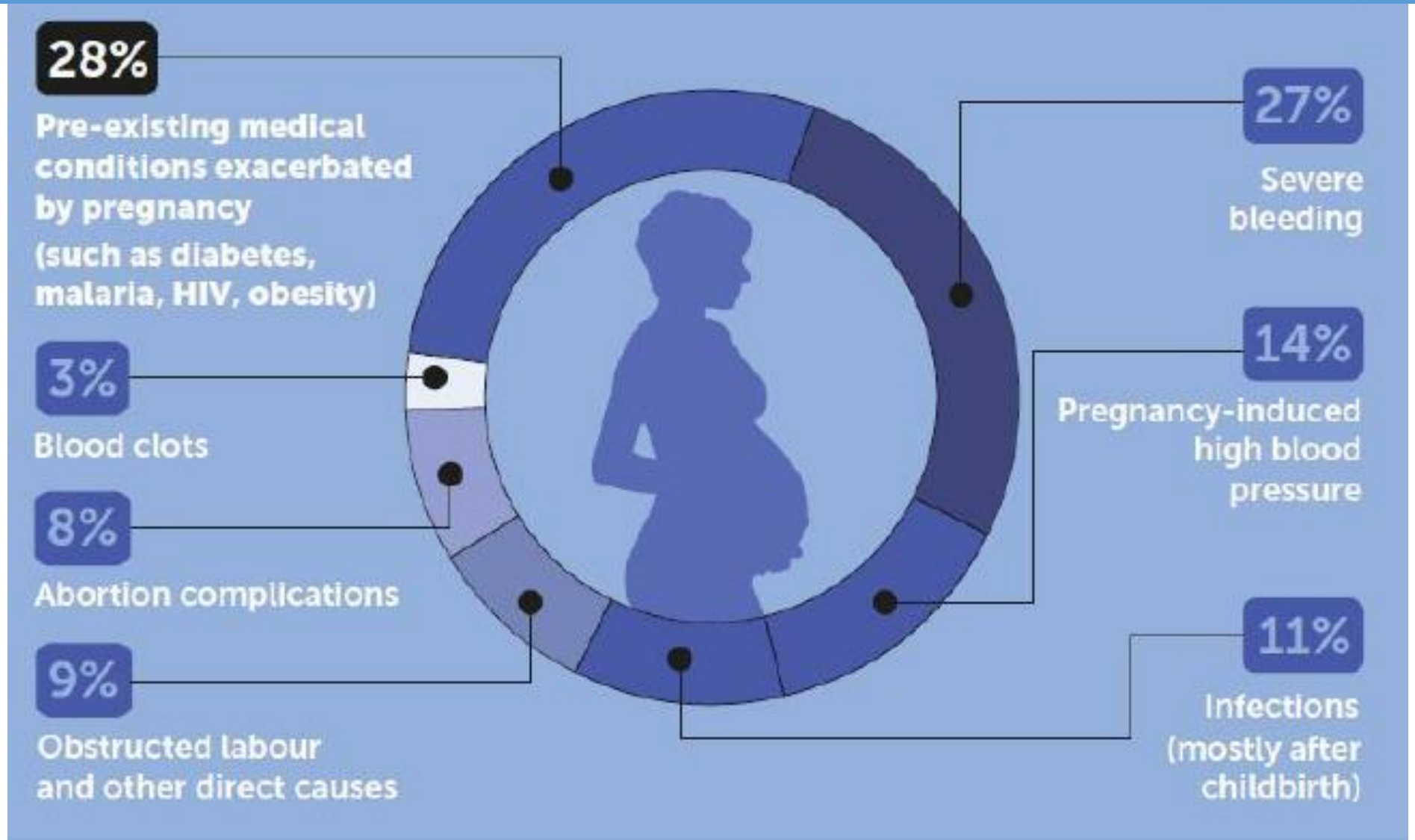
1. • Haemorrhage (Usually occurring postpartum)
2. • Infection (Sepsis)
3. • Hypertensive disorders of pregnancy (Eclampsia)
4. • Obstructed labour
5. • Abortion (Unsafe Induced Abortion)

as well as interventions, omissions, incorrect treatment, or events resulting from any of these.

INDIRECT OBSTETRIC DEATHS:

Result from previously existing diseases or from diseases arising during pregnancy (but without direct obstetric causes), which were aggravated by the physiological effects of pregnancy; examples of such diseases include malaria, anaemia, HIV/AIDS and cardiovascular disease.

Main causes of maternal deaths



Risk factors for Maternal mortality and morbidity:

- **Maternal age**: ≤19 years, ≥35 years and over.
- **Height** ≤145 cm. small or inadequate pelvis.
- **BMI** >30 (Obesity), < 18 (underweight).
- **Parity** > 4 (the number of times that woman has given birth to a fetus with a gestational age of 24 weeks or more, regardless of whether the child was born alive or was stillborn)
- **Birth spacing** < 2 years
- **Multiple gestation**
- **Previous history** of miscarriages or abortions, ante-partum hemorrhages, post-partum hemorrhages, delivery of low- birth- weight infant
- **Malnourished** and anemic mothers
- **Existing or pre-pregnancy health conditions**, such as cardiovascular disease, obesity, diabetes, UTI, Epilepsy, asthma, Drug use, or a compromised immune system.
- **Lower education levels and socioeconomic status**
- **Lifestyle factors** (ex: a current or former smoker)
- **Other social causes** (intimate violence, social roles…etc.)

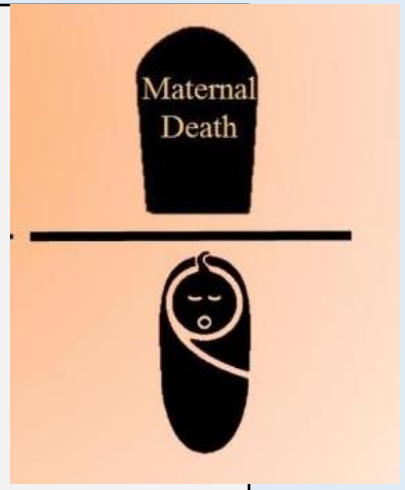
Measurement of Maternal Mortality

1) Maternal mortality ratio:

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

Total maternal deaths occurring in one year **x 100 000**

Number of live births occurring in same year



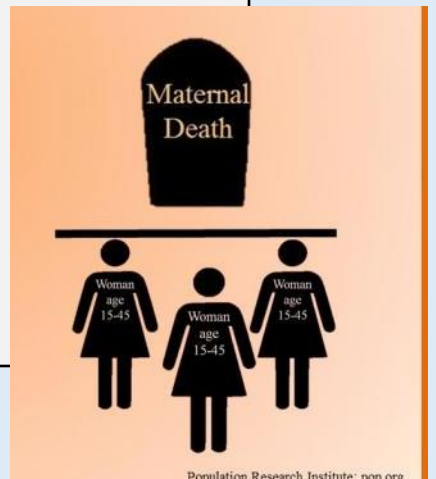
2) Maternal mortality rate:

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

Total maternal deaths occurring in one year **x 100 000**

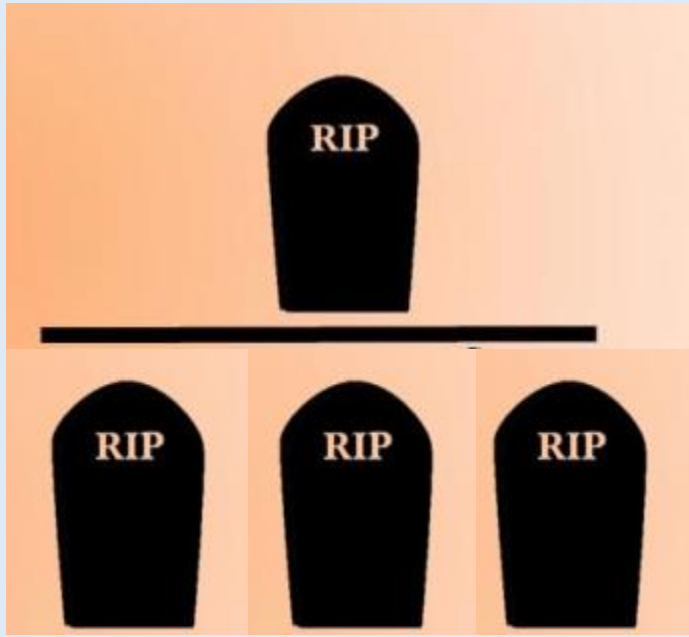
Number of women 15-49 y in same year

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, is a measure used to describe the proportion of deaths in a specific population attributed to a particular cause or condition over a defined period. It is typically expressed as a percentage.



$$\frac{\text{Maternal deaths from specific cause in a period}}{\text{Deaths to reproductive age in the same period}} \times 100$$

4)Peri-natal mortality rate

- It is expressed as the sum number of still births and early neonatal deaths (less than 7 days of life) per 1000 births.
- **Still birth** is complete expulsion of a product of conception after the age of fetal viability (20-28 weeks gestation) which do not show any sign of life (breathing or pulsation of the umbilical cord, heart beats, movement of voluntary muscles.

Peri-natal mortality rate =

$$\frac{\text{No. of (still births + early neonatal deaths) in certain year and locality}}{\text{Total births (still and live births) in same year and locality}} \times 1000$$

It reflects the quality of prenatal care, access to healthcare services, and the overall health of both the pregnant woman and the newborn and it is often used to assess the effectiveness of healthcare interventions and programs aimed at reducing stillbirths and neonatal deaths.

- **5. Lifetime risk of maternal death**
- Takes into account both the probability of becoming pregnant and the probability of dying as a result of the pregnancy cumulated across 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**
- It can help identify areas with high maternal mortality risks
- 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 a high-fertility setting, a woman faces the risk of maternal death multiple times, and her lifetime risk of death will be higher than in a low-fertility setting.

How Do These Women Die?

Three Delays Model

- **Delay in decision to seek care**
  - The 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
- **Delay in reaching care due to;**
  - Distance to health centres and hospitals
  - Availability of and cost of transportation
  - Poor roads and infrastructure
  - Geography e.g. mountainous, rivers
- **Delay in receiving care**
  - Poor facilities and lack of medical supplies
  - Inadequately trained and poorly motivated medical staff
  - Inadequate referral systems

Components of Maternal care


TO BE CONTINUED


ألا مذاكرة الصحة العامة سهلة ولا
صعبة؟؟
لو سهلة أدينا بنذاكرها...
ولو صعبة أدينا ما بنفهمش فيها حاجة