Maternal and child health(MCH)

Dr. Israa Al-Rawashdeh MD,MPH,PhD
Faculty of Medicine
Mutah University
2022

Definition:

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

A package of comprehensive health care services which are developed to meet promotive, preventive, curative, rehabilitative needs of women before (pregnancy), during and after delivery and of 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.
- Reduce maternal mortality and morbidity.
- Reduce child's mortality and morbidity.
- Regulate fertility (reduce unwanted pregnancies and have "healthy" children when desired).
- Promote and protect physical growth and psycho-social development of children.

Maternal & Child Health

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 jointly 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, jointly 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:

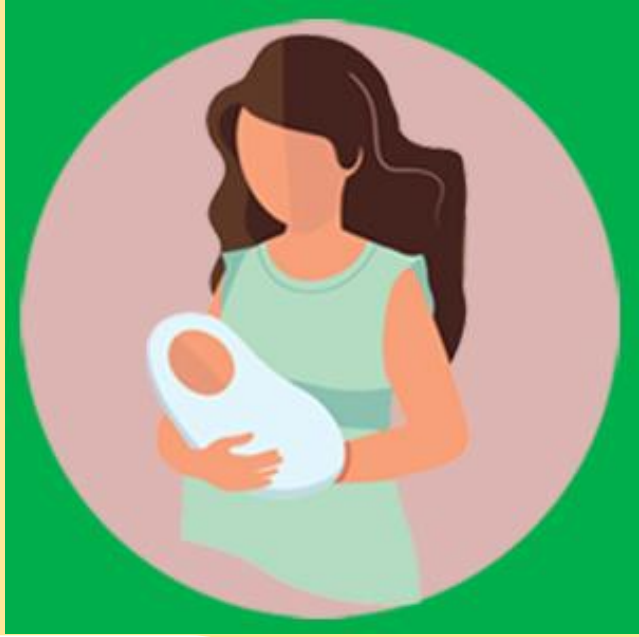
- **In many developing countries, complications of pregnancy and childbirth are the leading causes of death among women of reproductive age.**
- **Over 40% of the pregnancies in developing countries result in complications, illnesses, or permanent disability for the mother or child.**
- **About 80% of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

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 :

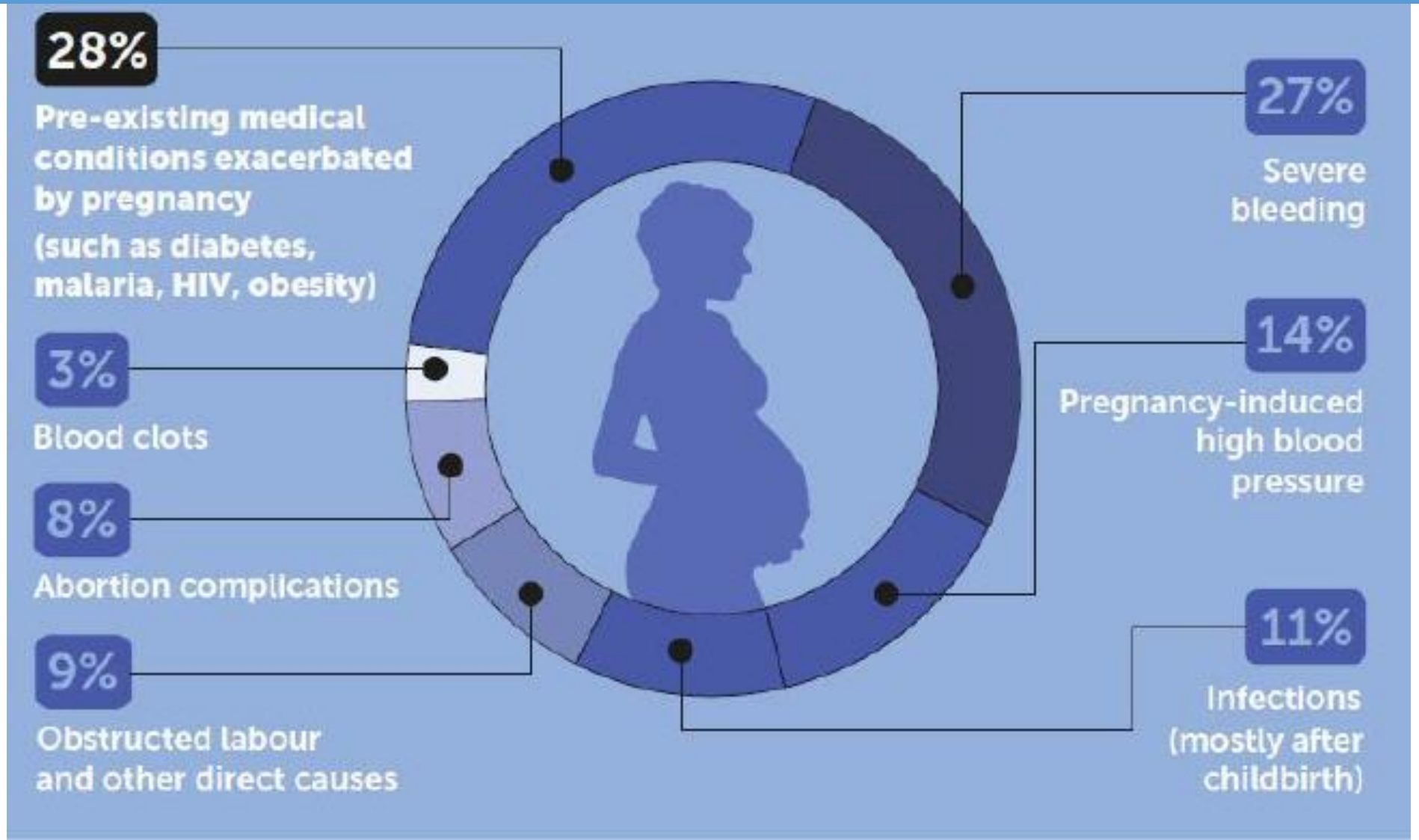
1. • Haemorrhage (Usually occurring postpartum)
2. • Infection (Sepsis)
3. • Hypertensive disorders of pregnancy (Eclampsia)
4. • Obstructed labour
5. • Abortion (Unsafe)

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.
- Parity > 4
- Birth spacing < 2 years
- Multiple gestation
- BMI >30 (Obesity), < 18 (underweight).
- Previous history of miscarriages or abortions
- Malnourished and anemic mothers
- BMI Mothers having more than 70kg of weight have difficulty during child-birth.
- Existing or pre-pregnancy health conditions, such as cardiovascular disease, obesity, asthma, 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.)

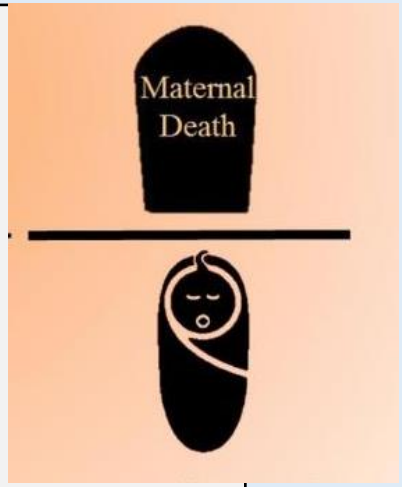
Measurement of Maternal Mortality

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



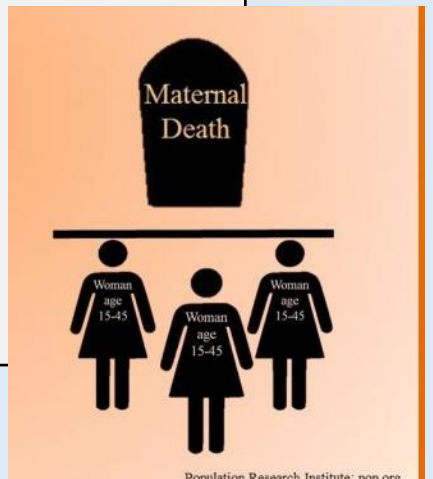
2) Maternal mortality rate:

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

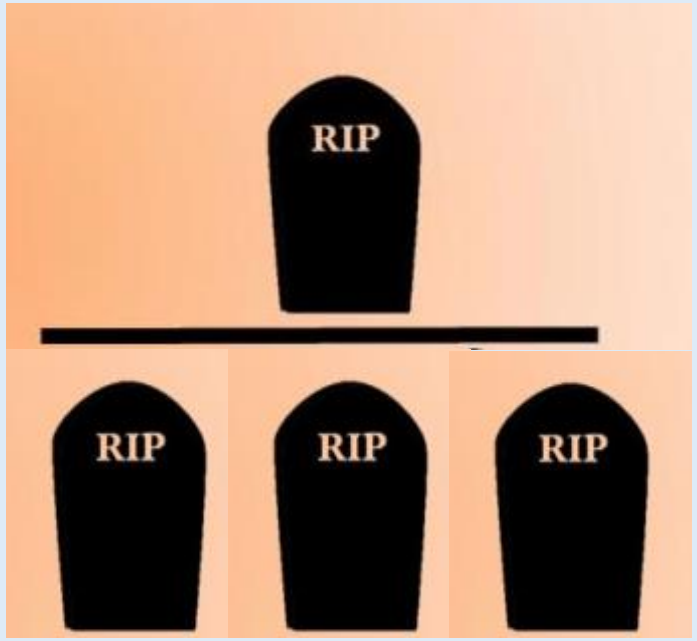
High fertility rates increase the risk that a woman will die from maternal causes



3)Proportionate mortality rate:

The maternal deaths as a proportion of all deaths among women of reproductive age =

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



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 =

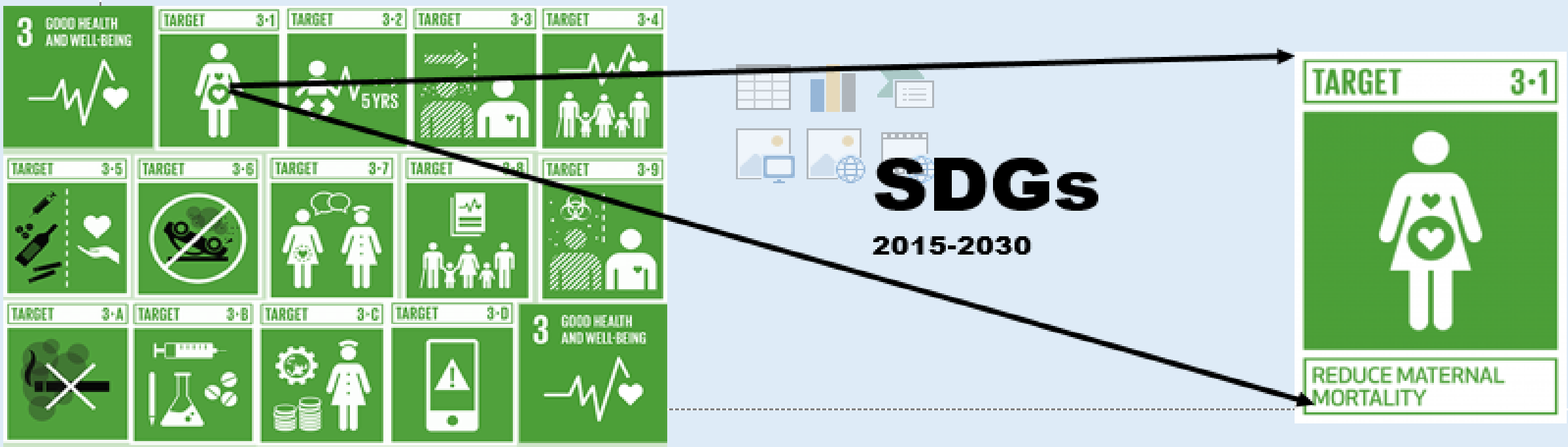
$$\frac{\text{No of (still births + early neonatal deaths) in certain year and locality}}{\text{Total births(still and live births) in same year and locality}} \times 1000$$

- **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 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.

MDGs

2000-2015

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.

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