

## MCH4:

**Anemia:** hb<11 mg/dl during pregnancy

### RISK FACTORS

- Twin or multiple pregnancy
- Poor nutrition, especially multiple vitamin deficiencies
- Smoking, which reduces absorption of important nutrients
- Excess alcohol consumption, leading to poor nutrition
- Any disorder that reduces absorption of nutrients
- Use of anticonvulsant medications

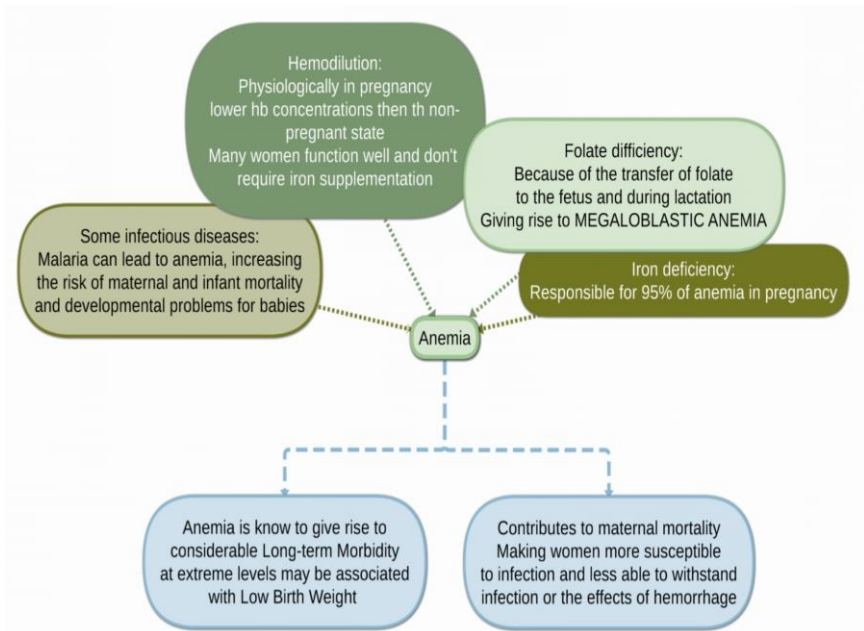
→ Pregnant women should **take iron tablets** for at least 90 days during pregnancy to prevent anemia and other complications.

Half of women (49%) received the recommended 90 days of iron supplements; 22% received no iron supplements during their last pregnancy.

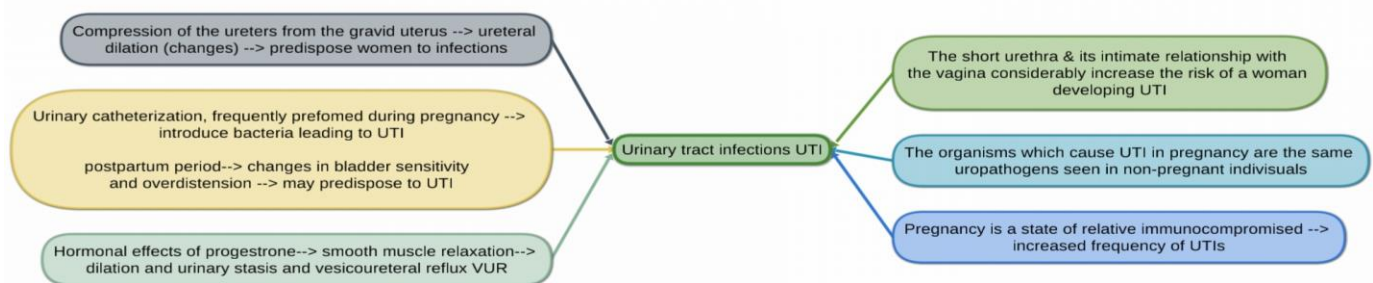
### Epidemiology:

Women hb<11: ► World 51 ► Developing ► 56 Developed 18

WHO estimated that around 60 percent of pregnant women in developing countries (other than China) had nutritional anemia despite efforts in iron supplementation, fortification and dietary modification



## Urinary Tract Infection UTIs:



## Gestational Diabetes mellitus GDM:

- Gestational diabetes is high blood sugar that develops during pregnancy and usually disappears after giving birth due to insufficient insulin production to meet the extra needs in pregnancy.
- It can occur at any stage of pregnancy but is more common in the second half.
- **Most** women who have gestational diabetes deliver **healthy babies**. However, gestational diabetes that's **not carefully managed** can lead to uncontrolled blood sugar levels and cause **problems for the mother and her baby**, including an increased likelihood of needing a C-section to deliver.

prevalence	Risk factors
Varies between 1% and 14% in all pregnancies depending on: the genetic characteristics environment of the population under study screening and diagnostic methods employed prevalence of type 2 diabetes mellitus.	<b>Age</b> <b>Family or personal history</b> <b>Excess weight.</b> <b>Non-white race.</b>

## Sexually transmitted diseases STDs:

Can cause **pain, infertility & death** if not treated

**Example:** 1) Gonorrhoea 2) syphilis 3) Chlamydia. 4) Genital herpes 5) Trichomonas vaginitis

► One-third of ever-married women and all men have heard of STIs other than HIV/AIDS. ► Among the ever-married men who have heard of STIs, 11% report having had an STI in the year before the survey. ► Men's self report of STIs is highest in Aqaba (24%) and Balqa (21%)

Each year, there are about **330 million new cases of STD & 1 million case of AIDS in the world**

## Complications that may affect the mother:

1) **induced labor** ( labor induction) or a **caesarean section**

2) **Polyhydramnios:** the excessive accumulation of amniotic fluid — the fluid that surrounds the baby in the uterus during pregnancy.

3) **premature birth**

4) **pre-eclampsia**

5) **Stillbirth**

6) **Type 2 diabetes**

**Causes of maternal morbidities in Jordan:** descending order

1) Urinary tract infections 2) Vaginal infections 3) Anemia 4) Early bleeding 5) Hypertension 6) Gestational diabetes

## Maternal Mortality:

The death of a woman whilst pregnant or within 42 days of delivery or termination of pregnancy, from any cause related to, or aggravated by pregnancy or its management, but excluding deaths from incidental or accidental causes (WHO)

### Maternal mortality rate

**the number of maternal deaths per 100,000 live births**

→ a measure of the risk of death once a woman has become pregnant  
→ not calculated using an accurate count of all pregnancies that can result in a maternal death, with stillbirths not included and infants in multiple birth sets over represented in live birth figures.

### Maternal mortality rate

**the number of maternal deaths (direct and indirect) in a given period per 100,000 women of reproductive age**

→ Globally, an estimated 500,000 women die as a result of pregnancy each year, 99%, are in **developing countries** the magnitude of maternal death is **very high in Sub-Saharan Africa and South Asia** (as much as 200 times higher than those in industrial countries.) While high-quality, accessible health care has made maternal death a rare event in more developed countries

→ Maternal mortality is the leading cause of death among women of reproductive age in most of the developing world. Maternal mortality constitutes a small part of the larger maternal morbidity and suffering.

→ **Developed nations owing to:** 1) lack of adequate medical care 2) high prevalence of infectious diseases 3) higher total fertility rate and due to health care system difference.

→ Maternal mortality in developing countries is given least attention, despite the fact that almost all of the suffering and death is **preventable with proper management.**

Countries with high maternal mortality ratio have less reliable vital statistics registry system; as a result level of maternal mortality is usually underestimated

## Further effects of maternal mortality:

- The health and deaths of the seven million newborns who die annually as a result of maternal health problems and
- The health and socio-economic impact on children, families, and communities.

### Causes of Maternal Mortality:

→ Nearly **three-quarters of maternal deaths are due to direct complications** of pregnancy and childbirth, such as **severe bleeding, infection, unsafe abortion, hypertensive disorders (eclampsia), and obstructed labor**. Women also die of **indirect causes** aggravated by pregnancy, such as **malaria, diabetes, hepatitis, and anemia**.

→ The risk of maternal mortality is also related to the **mother's previous health and nutritional status**, issues of gender discrimination, and access to health services.

→ **Adolescent pregnancy carries a higher risk** due to the danger of incomplete development of the pelvis, and there is a higher prevalence of hypertensive disorders among young mothers.

→ **Frequent pregnancies** also carry a higher risk of maternal and infant death.

### Millennium Development Goals

To combat **poverty, hunger, disease, illiteracy, environmental degradation, and discrimination against women**.

MDG goals:

- ❖ **MDG 1:** eradicate extreme poverty and hunger
- ❖ **MDG 2:** Achieve universal primary education
- ❖ **MDG 3:** promote gender equality and empower women
- ❖ **MDG 4:** reduce child mortality
- ❖ **MDG 5:** improve maternal health
- ❖ **MDG 6:** combat HIV/AIDS, malaria and other diseases
- ❖ **MDG 7:** ensure environmental sustainability
- ❖ **MDG 8:** develop a global partnership for development

Improve maternal health **Targets and Indicators:**

**Target 5a:** Reduce by three quarters the maternal mortality ratio

5.1 Maternal mortality ratio

5.2 Proportion of births attended by skilled health personnel

**Target 5b:** Achieve, by 2015, universal access to reproductive health

5.3 Contraceptive prevalence rate

5.4 Adolescent birth rate

5.5 Antenatal care coverage (at least one visit and at least four visits)

5.6 Unmet need for family planning

### Maternal Mortality in Jordan:

▶ Reduction of MMR from 41 maternal death per 100,000 live births in 2000 To 12/100,000 by the year 2015

▶ In 2007-2008 it was 19.1 per 1000000

▶ The highest among Arab countries is Sudan 1107/1000000, while UAE has 0/1000000

Maternal mortality causes in Jordan:

#### Direct Causes

1. hemorrhage
2. Thromboembolism
3. Septicemi

#### Indirect causes

1. Cardiovascular diseases
2. CNS diseases
3. Contagious diseases

The United Nations Millennium Development Goals were 8 goals that all 189 UN Member States have agreed to try to achieve by the year 2015.

→ Every day, approximately 830 women die from preventable causes related to pregnancy and childbirth.

→ Skilled care before, during and after childbirth can save the lives of women and newborn babies.

→ **Delivery:** When, Where (In Jordan 69% in public facility, 30% in Private facility) and Who (medical staff or not)

• Clean hands • Clean delivery service • Clean cutting of the cord

How: Normal or CS

**Post Natal Care:** helps prevent complications after childbirth

- Observe physical status
- Advise, and support on breast-feeding
- Provide emotional and psychological support.
- Health education on weaning and food preparation.
- Advise on Family Planning

- 83% of women age 15-49 received a postnatal checkup within two days of delivery
- 12% received no postnatal check

- 86% of newborns received a postnatal checkup within two days of birth
- 13% received no postnatal check.

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