




# Maternal and Child Health (MCH)

---





Antenatal care (ANC) can be defined as the care provided by skilled health-care professionals to pregnant women and adolescent girls in order to ensure the best health conditions for both mother and baby during pregnancy.




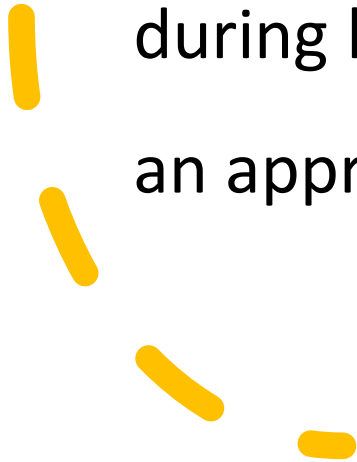
The first visit or initial visit should be made as early in pregnancy as possible



## The components of ANC:

1. Risk identification.
2. prevention and management of pregnancy-related or concurrent diseases.
3. Health education and health promotion.



- 
- ANC reduces maternal and perinatal morbidity and mortality both directly, through detection and treatment of pregnancy-related complications, and indirectly, through the identification of women and girls at increased risk of developing complications during labor and delivery, thus ensuring referral to an appropriate level of care
- 

# Antenatal checks and tests

1. Weight and height checks (BMI)
2. Urine tests: Including urinalysis, urine check for protein.
3. Blood pressure
4. Blood tests (CBC, TSH, Blood glucose).
5. Ultrasound scan

# Ultrasound scan



- A screening ultrasound is sometimes done throughout pregnancy:
- As routine prenatal care to establish viability, determine gestational age, assess the number of fetuses, monitor fetal growth and detect fetal abnormalities.
- It is recommended that all pregnant women undergo a routine ultrasound at 10 to 13 weeks of gestation to determine an accurate gestational age. Getting an accurate gestational age is highly important for the optimal assessment of fetal growth later in pregnancy

# ANC visits

- In low- and middle-income countries (LMICs), ANC utilization has increased since the introduction of the 2002 WHO ANC model, known as ‘focused’ ANC (FANC).
- With the FANC model, healthy women with no underlying pregnancy complications should be scheduled a minimum of four ANC visits, and more than four in the case of danger signs or pregnancy-related illnesses.

# WHO 2016 ANC Recommendations

- Recent evidence suggests that the focused antenatal care (FANC) model, is associated with more perinatal deaths than ANC models that comprise at least eight contacts between the pregnant woman or adolescent girl and the health care provider



# WHO 2016 ANC Recommendations

WHO recommends a minimum of eight contacts:

- One contact in the first trimester
- Two contacts in the second trimester
- Five contacts in the third trimester.

Table 1. 2016 WHO ANC model
First trimester
Contact 1: up to 12 weeks
Second trimester
Contact 2: 20 weeks Contact 3: 26 weeks
Third trimester
Contact 4: 30 weeks Contact 5: 34 weeks Contact 6: 36 weeks Contact 7: 38 weeks Contact 8: 40 weeks
Return for delivery at 41 weeks if not given birth. <i>Note:</i> Intermittent preventive treatment of malaria in pregnancy should be started at $\geq 13$ weeks.

# Antenatal Care / Jordan JPFHS 2023

- In Jordan, antenatal care is almost universal; 97% of women received ANC from a health professional (doctor, nurse, or midwife) during the pregnancy
- ANC coverage is high in all background characteristic categories.
- The proportion of women receiving ANC from a skilled provider remains very high in Jordan, varying from 84% in 1990 to 99% in 2007 and 97% in 2023.

# Pregnancy risk factors that should be considered in ANC

1. Age under 18 or above 35
2. Height (less 150 cm)
3. BMI <18 or >25
4. Education and income
5. Past Medical history: Diabetes, cardiac problem, renal disease etc. The general condition of the woman pre-conceptual (Hb level, nutritional, blood pressure and general condition).

# Pregnancy risk factors that should be considered in ANC

6. Past obstetric history: Previous caesarean section, vacuum, or forceps delivery, previous perinatal death, stillbirth
7. Previous Post partum or ante partum hemorrhage (PPH or APH)
8. Social history : Smoking, Alcohol.

# Teenage Pregnancy (adolescent pregnancy)

- The issue of adolescent fertility is important for both health and social reasons.
- Children born to very young mothers are at increased risk of sickness and death.
- Teenage mothers are more likely to experience adverse pregnancy outcomes and are more constrained in their ability to pursue educational opportunities than young women who delay childbearing.

- Around 3% of ever-married women age 15–19 in Jordan have ever been pregnant.
- Teenage pregnancy varies from a low of 1% in Ma'an and Aqaba to 5% in Zarqa.
- Teenage pregnancy is more common among those with less than a secondary education or a secondary education (4% and 3%, respectively) than among those with no education or a higher education.
- Teenage pregnancy decreases steadily with increasing wealth.

# Antenatal classes in Europe

Topics covered by antenatal classes are:

1. Health in pregnancy, including a healthy diet and exercises
2. What happens during labor and birth
3. Coping with labor and information about different types of pain relief
4. Relaxation techniques during labor and birth
5. Caring for the baby, including feeding
6. Health after birth
7. "Refresher classes" for those who've already had a baby



# Access to ANC services

- Access to ANC services consists of several elements(WHO),including:
  1. Distance and/or time to a facility.
  2. The physical availability of services.
  3. Cultural and social factors that may impede access.
  4. Economic and other costs associated with use of services.
  5. The quality of the services offered



# What is Maternal Morbidity?

Any departure, from a state of physiological or psychological maternal well-being; during pregnancy, childbirth and the postpartum period up to 42 days of delivery, related to changes taking place in these periods.

# Causes of Maternal Morbidities

1. Medical comorbidities (Hypertension, Diabetes, anemia, depression, postpartum sepsis, ..)
2. Stillbirth and abortion
3. Hemorrhage
4. Preterm delivery
5. Ectopic pregnancy
6. Perineal tears
7. Uterine rupture
8. Obstructed labor

# Hypertensive disorders of pregnancy

- Chronic hypertension is defined as blood pressure exceeding 140/90 mm Hg before pregnancy or before 20 weeks' gestation.
- When hypertension first is identified during a woman's pregnancy and she is at less than 20 weeks' gestation, blood pressure elevations usually represent chronic hypertension.

# Preeclampsia (PE)

- PE is a multisystem, pregnancy-specific disorder that is characterised by the development of hypertension and proteinuria after 20 weeks of gestation.
- PE is a leading cause of maternal, and neonatal mortality and morbidity worldwide.
- Preeclampsia occurs in approximately 5% of all pregnancies, 10% of first pregnancies, and 20-25% of women with a history of chronic hypertension.

# Preeclampsia (PE)

- Clinically, PE presents as new-onset hypertension in a previously normotensive woman, with systolic and diastolic blood pressure readings of  $\geq 140$  and  $\geq 90$  mmHg, respectively, on 2 separate occasions that are at least 6 hours apart, together with proteinuria that develops after 20 weeks of gestation

# Preeclampsia (PE)

- Although the exact physiologic mechanism is not clearly understood, preeclampsia can be thought of as a disorder of endothelial dysfunction with vasospasm.

# Preeclampsia (PE)

- PE can evolve into eclampsia which is a severe complication that is characterised by new-onset of epileptic seizures, due to angiospasm in the brain and brain edema.

# Risk factors for PE

## A. Maternal risk factors:

1. First pregnancy
2. Age <18 years or >35 years
3. History of preeclampsia
4. Family history of preeclampsia in a first-degree relative
5. Black race



# RISK FACTORS FOR PE

## **B. Medical risk factors**

1. Chronic hypertension
2. Diabetes (type 1 or type 2).
3. Renal disease
4. Systemic lupus erythematosus
5. Obesity

**Thank you**

