Maternal and Child Health (MCH)

Learning objectives

- Identify the components of antenatal check-ups and visits.
- Describe risk factors of pregnancy that should be considered in antenatal visits.
- Describe the status of antenatal care in Jordan.
- Identify the causes of maternal morbidities.

Definition of Antenatal care

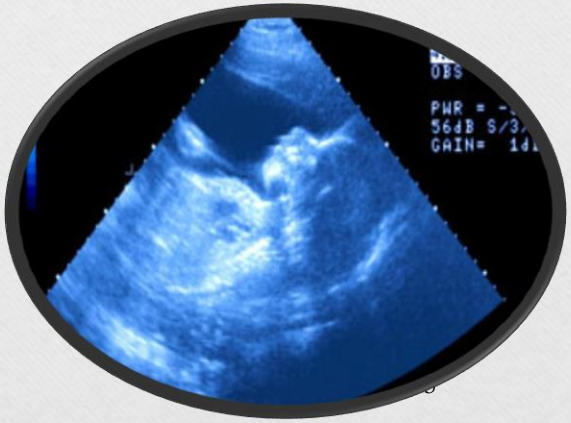
- It is a planned examination, observation and guidance given to the pregnant woman from conception till the time of labor.
- The first visit or initial visit should be made as early is pregnancy as possible

Antenatal checks and tests

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

Ultrasound scan?

1. To check the baby size and growth.
2. To screen for congenital abnormalities.
3. To show the position of the baby and the placenta. For example, when the placenta is low down in late pregnancy, a caesarean section may be advised.



According to JPFHS 2017-2018

Almost all of the women who received ANC for their most recent birth had had key ANC services performed, including having their blood pressure measured (97%), a urine sample taken (96%), a blood sample taken (97%), and their weight measured (97%)

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. *Note:* Intermittent preventive treatment of malaria in pregnancy should be started at ≥ 13 weeks.

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-conceptional (Hb level, nutritional, blood pressure and general condition).

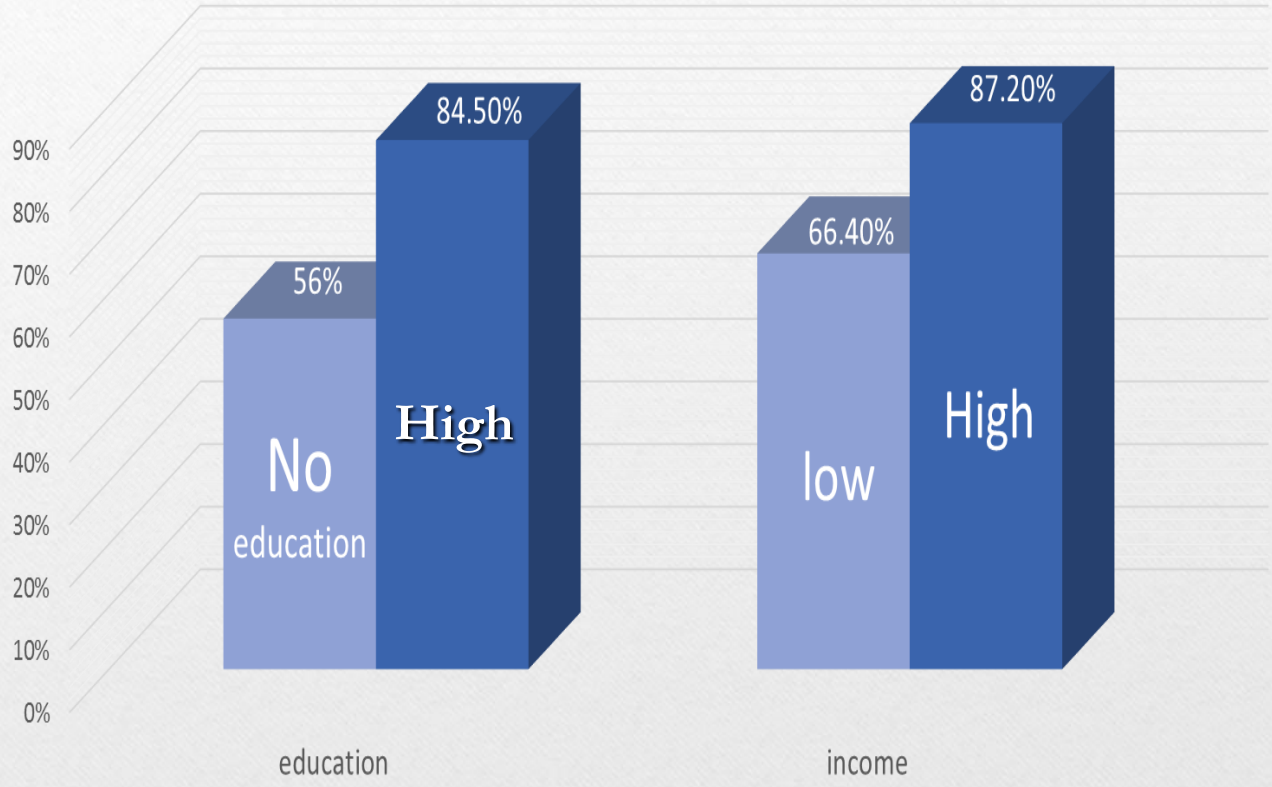
Pregnancy risk factors that should be considered in ANC

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.

Antenatal care in Jordan in 2012 *JPFHS*

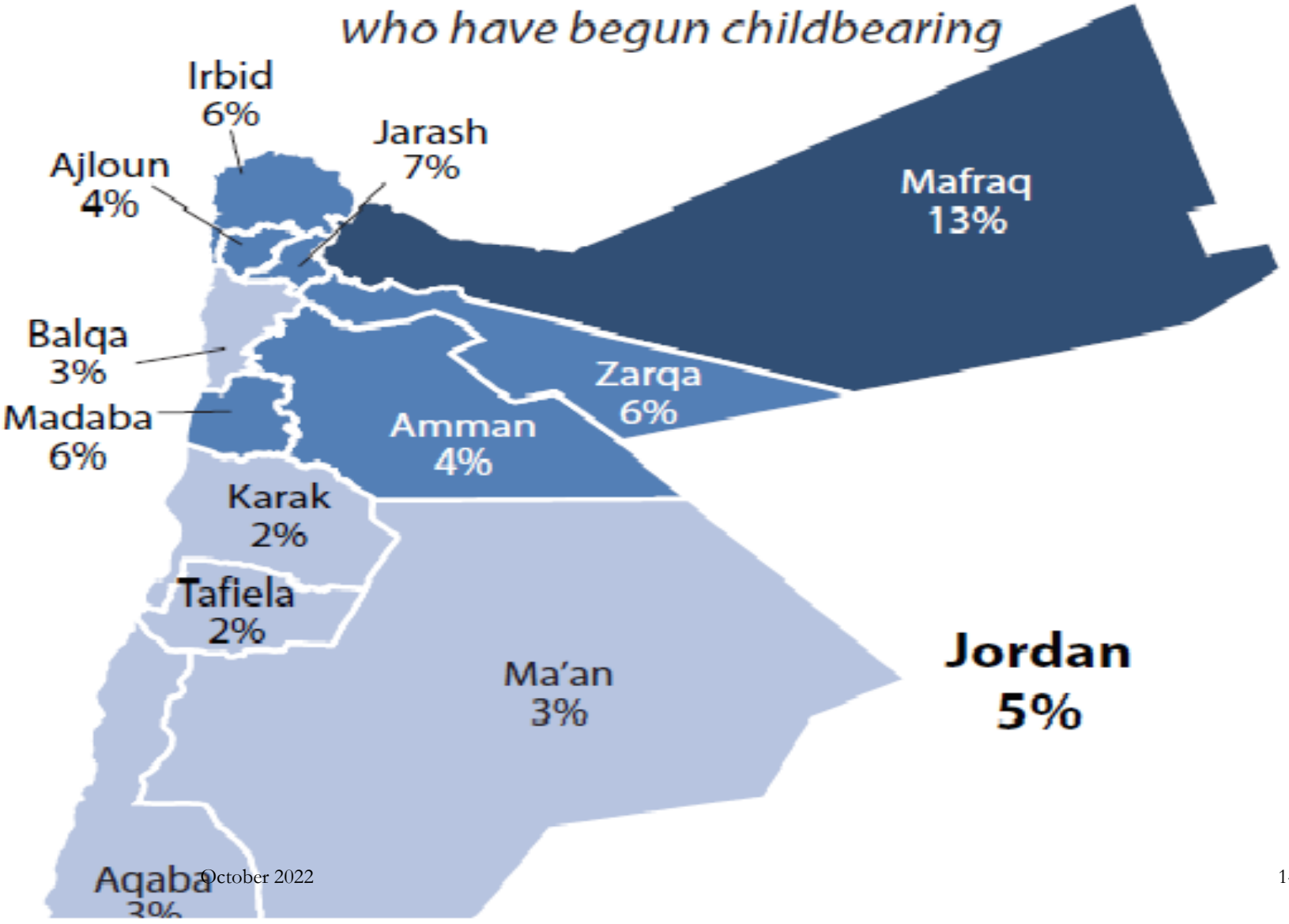


TEENAGE PREGNANCY (adolescent pregnancy)

- 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.

Teenage Childbearing by Governorate

Percent of ever-married women age 15-19 who have begun childbearing



Antenatal classes in Europe

Topics covered by antenatal classes are:

- Health in pregnancy, including a healthy diet and exercises
- What happens during labor and birth
- Coping with labor and information about different types of pain relief
- Relaxation techniques during labor and birth
- Caring for the baby, including feeding
- Health after birth
- “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

Antenatal Care / Jordan JPFHS 2017

- About 98% of women between age 15-49 received at least one antenatal care (ANC) visit from a skilled provider (doctor or nurse/midwife).
- About 92% of women between age 15-49 made 4+ ANC visits, and 79% had the recommended 7+ visits.

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 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)

- Preeclampsia (PE) is a multisystem, pregnancy-specific disorder that is characterised by the development of hypertension and proteinuria (elevated levels of protein in the urine) after 20 weeks of gestation.
- PE is a leading cause of maternal, and neonatal mortality and morbidity worldwide.

PE prevalence

- 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 ≥140 and ≥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 path 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 angiospasms in the brain and brain edema.

RISK FACTORS FOR PE

I. 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

II. Medical risk factors

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

Thank you