بسم الله الرحمن الرحيم

الحمد لله رب العالمين والصلاة والسلام على نبينا محمد خاتم الأنبياء وسيد المرسلين وعلى آله وصحبه أجمعين وبعد

Maternal and child health

- Maternal and child health (MCH) care is the health service provided to mothers (women in their child bearing age) and children. The targets for MCH are all women in their reproductive age groups, i.e., 15 - 49 years of age, children, school age population and adolescents.

- Throughout the world, especially in the developing countries, there is an increasing concern and interest in maternal and child health care.

Learning Objectives MCH

- • Understand the importance and role of MCH care
- • Outline the objectives of the MCH programs
- • Describe major health problems of mothers and children
- • Identify the factors that affect the health of mothers and children

- • Major causes of maternal and child mortality and prevention
- • Recognize the available maternal and child heath services
- • Describe the role of these services in preventing maternal and child morbidity and mortality

Objectives of Maternal Child Health Services

- 1-To reduce morbidity and mortality among mothers and children, through health promotion activities rather than curative interventions.
- 2-To improve the health of women and children through expanded use of fertility regulation methods, adequate antenatal coverage, and care during and after delivery.

- 3-To reduce unplanned or unwanted pregnancies through sex education and the wider use of effective contraceptives.
- 4-To reduce perinatal and neonatal morbidity and mortality.
- 5-.Promotion of reproductive health and the physical and psychosocial development of the child and adolescent within the family.

- 6. To reduce the incidence and prevalence of sexually transmitted infections, in order to reduce the transmission of HIV infection.
- 7. To reduce the incidence and prevalence of cervical cancer

- 8. To reduce female genital mutilation and provide appropriate care for females who have already undergone genital mutilation
- 9. To reduce domestic and sexual violence and ensure proper management of the victims.

- 10-To increase political awareness on the need to develop comprehensive intersectoral population policies using all available resources

Justifications for the provision of MCH Care

- 1-Mothers and children make up over 1/2 of the whole population.
- Children < 15 years are = 34.3% of the population
- Women in reproductive age (15 – 49) constitute around 20%.

- 2-Maternal mortality is an adverse outcome of many pregnancies.
- 3-Miscarriage, induced abortion, and other factors, are causes for over 40 percent of the pregnancies in developing countries to result in complications, illnesses, or permanent disability for the mother or child.

- 4-About 80 percent of maternal deaths in developing countries are due to direct obstetric causes. They result "from obstetric complications of the pregnant state (pregnancy, labor, and puerperium), from intervention, omissions, incorrect treatment, or from a chain of events resulting from any of the above.

- 5- Most pregnant women in the developing world receive insufficient or no prenatal care and deliver without help from appropriately trained health care providers. More than 7 million newborn deaths are believed to result from maternal health problems and their mismanagement.

- 6-Poorly timed unwanted pregnancies carry high risks of morbidity and mortality, as well as social and economic costs, particularly to the adolescent and many unwanted pregnancies end in unsafe abortion.
- 7-Poor maternal health hurts women's productivity, their families‘ welfare, and socio-economic development.

- 8- Large number of women suffers severe chronic illnesses that can be exacerbated by pregnancy and the mother's weakened immune system and levels of these illnesses are extremely high.
- 9- Many women suffer pregnancy-related disabilities like uterine prolapse long after delivery due to early marriage and childbearing and high fertility.

- 10- Nutritional problems are severe among pregnant mothers and 60 to70 percent of pregnant women in developing countries are estimated to be anemic. Women with poor nutritional status are more likely to deliver a low-birth -weight infant.

- 11- Majority of perinatal deaths are associated with maternal complications, poor management techniques during labour and delivery, and maternal health and nutritional status before and during pregnancy

- 12-The large majority of pregnancies that end in a maternal death also result in fetal or perinatal death. Among infants who survive the death of the mother, fewer than 10 percent live beyond their first birthday.

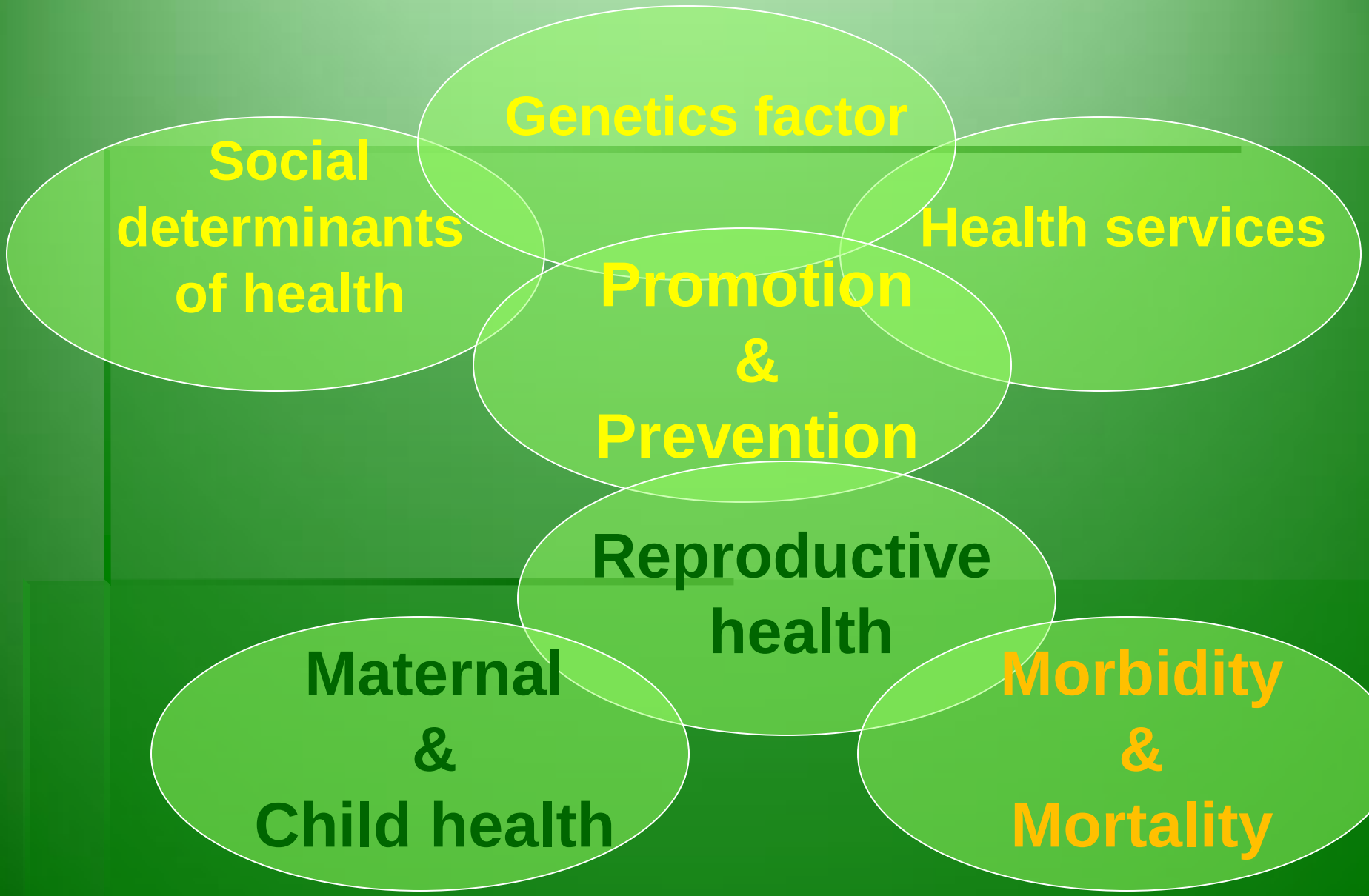
- 13- Ante partum hemorrhage, eclampsia, and other complications are associated with large number of perinatal deaths each year in developing countries plus considerable suffering and poor growth and development for those infants who survive.

- 14-Physiological changes that the mother and her child pass through
- 15- More sensitive to the environmental factors changes.

Maternal Health Learning Objectives

- • Understand the magnitude of maternal health problems / Maternal Morbidity
- • Describe the factors that affect the health of mothers
- • Describe maternal mortality
- • Outline the major causes of maternal mortality
- • Understand effects of maternal health on children, family and community

Reproductive health universe.



Reproductive Health

- Reproductive health care is defined as the constellation of methods, techniques and services that contribute to reproductive health and well-being through preventing and solving reproductive health problems.

- It also includes sexual health, the purpose of which is the enhancement of life and personal relations, and not merely counseling and care related to reproduction and sexually transmitted diseases.

Reproductive health as PHC Service

- . Reproductive health care in the context of primary health care should include: family-planning counseling, information, education, communication and services;.

- education and services for prenatal care, safe delivery, and post-natal care, especially breast-feeding, infant and women's health care; prevention and appropriate treatment of infertility; . .

- prevention of abortion and the management of the consequences of abortion; treatment of reproductive tract infections; sexually transmitted diseases and other reproductive health conditions;

- and information, education and counseling, as appropriate, on human sexuality, reproductive health and responsible parenthood.

- **Referral** for family-planning services and further diagnosis and treatment for complications of pregnancy, delivery and abortion, infertility, reproductive tract infections, breast cancer and cancers of the reproductive system, sexually transmitted diseases and HIV/AIDS should always be available, as required.

Some indicators of health status of women

- 1-Maternal Mortality Rate /100,000 (15-49 years death duet Pregnancy , Labor and post partum period)The most sensitive indicator for maternal health..
- 2- Malnutrition among women in reproductive age group
- 3-Teen-age pregnancy

- 4- Low birth weight deliveries (<2.5kg.)
- 5-Weight gains during pregnancy
  Normal (8-11 Kg.)
- 6-% of women visited ANC clinics.
- 7-% of Labor attended by Medical Staff.
- 8-% of women receiving family Planning Services.

.

Maternal health and developing countries.

- Most women do not have a good access to the health care and sexual health education services.

- A woman in sub-Saharan Africa has a 1 in 16 chance of dying in pregnancy or childbirth, compared to a 1 in 4,000 risk in a developing country – the largest difference between poor and rich countries of any health indicator.

Maternal health and developing countries.

- At the level of preconception and prenatal care, pregnancy complications and childbirth are the leading causes of death among women of reproductive age.

- Less than one percent of these deaths occur in developed countries, showing that they could be avoided if resources and services were available.

General Consideration

- More than **150 million** women become pregnant in developing countries each year and an estimated **500,000** of them die from pregnancy-related causes. Maternal health problems are also the causes for more than **seven million** pregnancies to result in stillbirths or infant deaths within the first week of life.

- Far too many women still suffer and die from serious health issues during pregnancy and childbirth. In 2015, an
- estimated 303 000 women worldwide died due to maternal causes. (WHO 2018)

- Almost all of these deaths (99%) occurred in low and middle-income countries (LMIC), with almost two thirds
- (64%) occurring in the WHO African Region (2). Reducing maternal mortality crucially depends upon ensuring that
- women have access to quality care before, during and after childbirth.

- Maternal death, of a woman in reproductive age, has a further impact by causing grave economic and social hardship for her family and community.

- Other than their health problems most women in the developing countries lack access to modern health care services and increases the magnitude of death from preventable problems.

Maternal mortality.

- Critical indicator of population health reflecting the overall state of maternal health as well as quality and accessibility of PHC available to pregnant women and infants. Maternal mortality ratio is measured per 100 000 live births.

- Measuring maternal mortality accurately is difficult except where comprehensive registration of deaths and of causes of death exists.

Global scenario-Maternal health

- *Each year, more than half million women die from causes related to pregnancy & childbirth*
- *For every such death there are 20 others who suffer pregnancy related illnesses or other adverse outcome (obstetric fistula, uterine prolapse)*
- *Around 10 million women annually suffer from complications of pregnancy*
- *On average, each day~1500 women die from causes related to pregnancy & child birth*
- *80% of maternal deaths could be avoided by access to essential maternity & basic health services*

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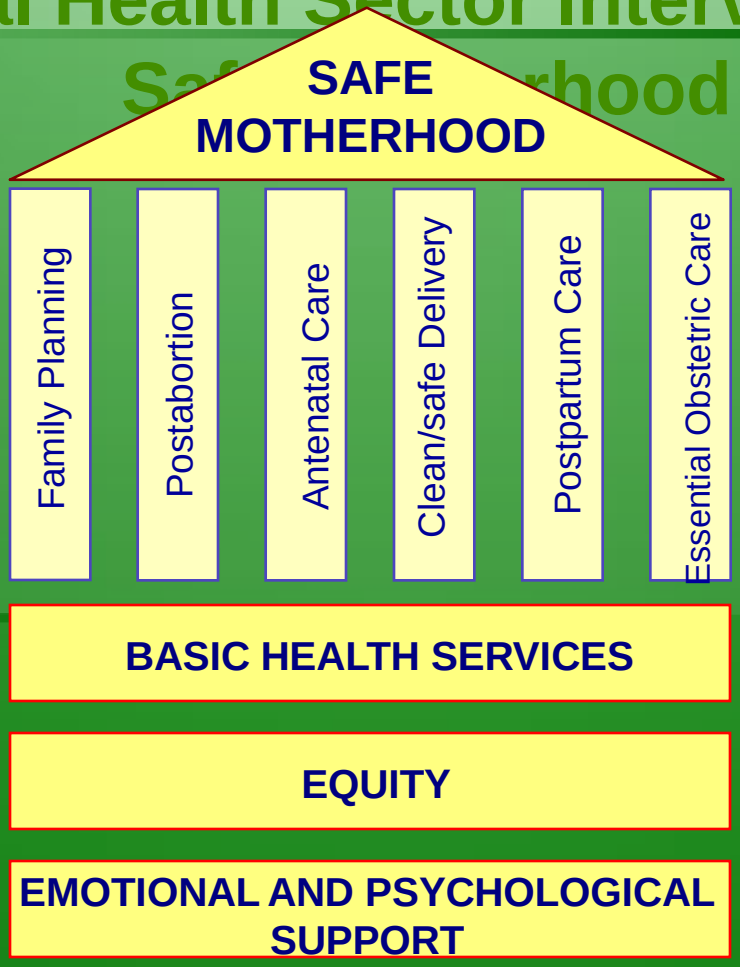
Content of MCH Care Services and Priorities:

- **M.C.H. Care at various stages of development: (Services):**
- Maternal:
- Infant and Child.

A-Maternal Survices:

Essential Health Sector Interventions for Saf rhood



- 1-Premarital.
- 2-Preconceptional.
- 3-Conceptional: Care during pregnancies and labor: A.N.C. (Risky Pregnancy)
- 4-Delivery Care(Centers, Staff and Equipment's)

  5-Postnatal and Family Planning Services.

Premarital

- Family health education
- Sexuality and puberty
- Marriage and parenthood
- Nutrition and weight monitoring.
- Avoiding hazards (smoking, Alcohol,drugs.)

- Immunization.
- Medical history , past medical history.
- STD
- Past Menstrual history.
- Physical examination.
- Genetic Counseling.

- Fertility investigation.
- Hormonal for females.
- Semen analyses for males.

Pre-marital medical exams JPFHS 2017

- About half of ever-married women and their husbands had a pre-marital medical exam. Premarital exams are much more common among those with higher education (over 65%) than those with no
- education (below 25%).

Pre conception

- -Past and recent Medical history.
- Social history.
- Controlling risk factors.
- Psychological and social counseling.

Conceptional: Objectives of ANC

- 1-Promote and maintain the physical, mental and social health of mother and baby by providing education on nutrition, personal hygiene and birthing process
- 2-Detect and manage complications during pregnancy, whether medical, surgical or obstetrical

- 3-Assess the risk of complications in later pregnancy, labour or delivery and arrange for a suitable level of care.

  4-Develop birth preparedness and complication readiness plan
- 5-Help prepare mother to breastfeed successfully, experience normal puerperium, and take good care of the child physically, psychologically and socially

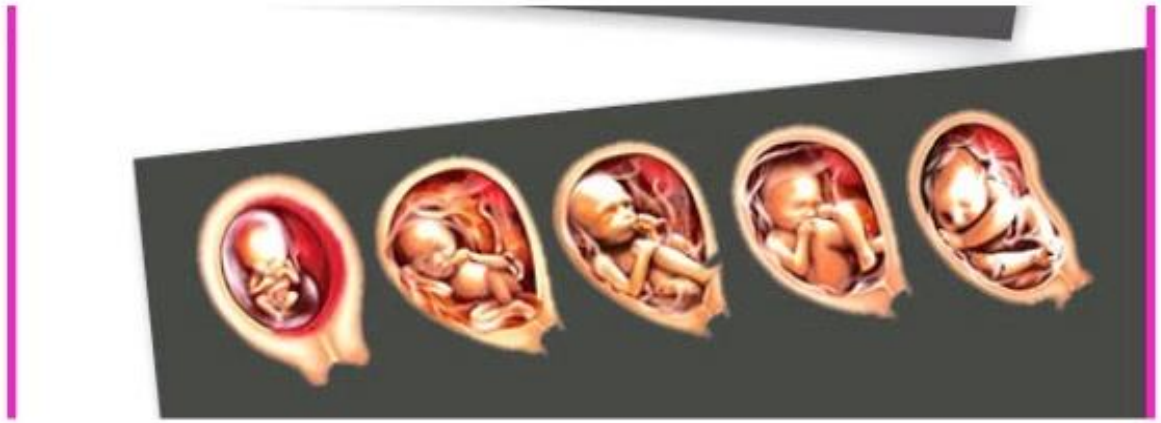
What is antenatal care

Antenatal care is a systemic supervision of a women during pregnancy to monitor the progress of foetal growth and to ascertain the well being of the mother and the foetus

A proper antenatal check ups provides necessary care to the mother and to help identify any complications of pregnancy

Why antenatal care is important

To ensure a normal pregnancy with delivery of a healthy baby from a healthy mother



Why antenatal care is important

- Prevent development of complications
- Decrease maternal and infant mortality and morbidity
- Remove the stress and worries of the mother regarding the delivery process
- Teach the mother about child care, nutrition, sanitation and hygiene
- Advice about family planning

Antenatal checks and tests

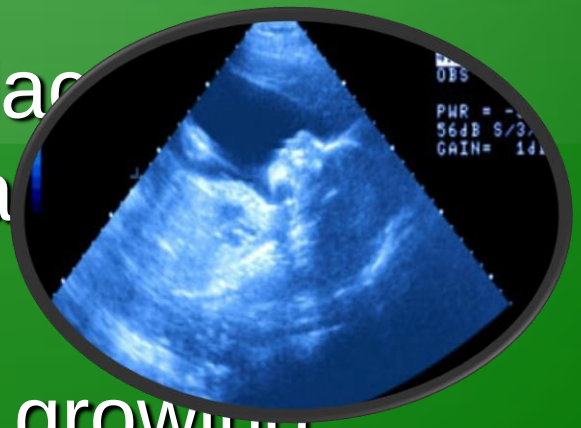
- **Weight and height checks**

  to calculate BMI (body mass index)
- **urine tests**

  urine is checked for several things , including protein or albumin
- **Blood pressure test**
- **Blood tests**
- **ultrasound scan**

What can an ultrasound scan be used for?

- To check the baby size.
- To detect abnormalities.
- To show the position of the baby and the placenta.
  For example, when the pla
  down in late pregnancy, a
  section may be advised.
- To check that the baby is growing normally

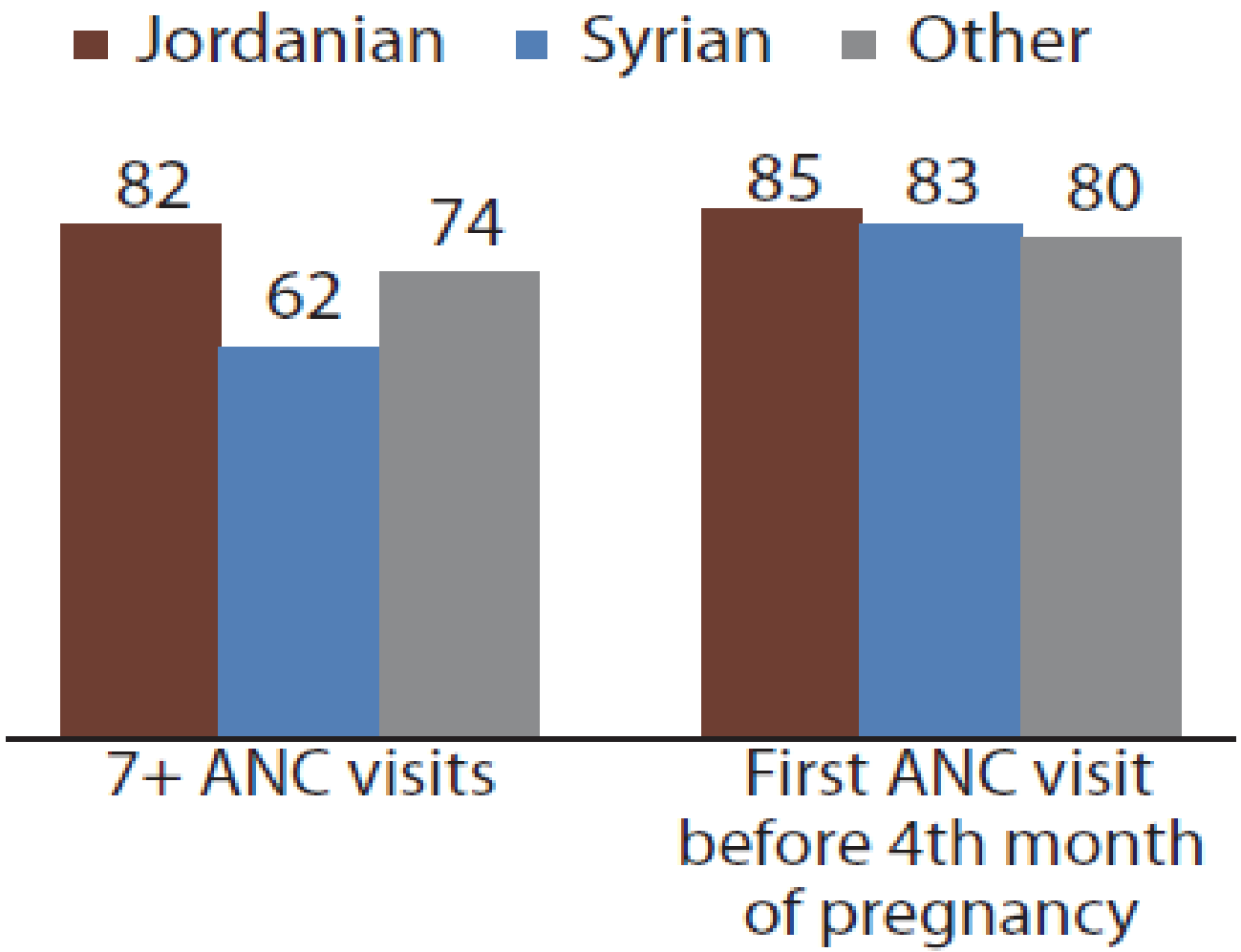


The aim of prenatal care is to assess the risk of complications in later pregnancy, labour or delivery and arrange for a suitable level of care.

- Ante natal care can also play a role in identifying danger signs or predicting complications around delivery by screening for risk factors and arranging for appropriate delivery care when indicated.

Number of Antenatal Care Visits and Timing of First Visit by Nationality

Percent of women age 15-49 who had a live birth in the five years preceding the survey who had:



Maternal death risks.

- Risk of maternal death is affected by many factors like:
- Frequency and spacing of births.
- Nutrition level (maternal undernutrition)
- Stature and maternal age.

Other Pregnancy risk factors that should be considered in ANC :

- 1-Age under 18 or above 35 in Jordan singulate mean age of females at first marriage **2017 is 26.3 years**
  2-Ht.(less 150 cm) And Wt. under or over wt.
  3-Residency
  4-Education
  5-Income
  6-Parity (Primigravida , More than 6 pregnancies)
- 7-Twins, Hydrominos ,Pre eclampsia

- 8-Past Medical history:
- Diabetes, cardiac problem, renal disease etc.
- 9-Past obstetric history:
- • Previous caesarean section, vacuum, or forceps delivery
- • Previous perinatal death, stillbirth
- • Previous Post partum haemorrhage
- • Previous ante partum haemorrhage

- 10-General condition of the woman pre-conceptional (Hb level, nutritional, blood pressure and general condition.)

- 11- Social history : Smoking, Alcohol or any drug therapy , work load, birth attendant, **economic status.**

TEENAGE PREGNANCY AND MOTHERHOOD

- 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.

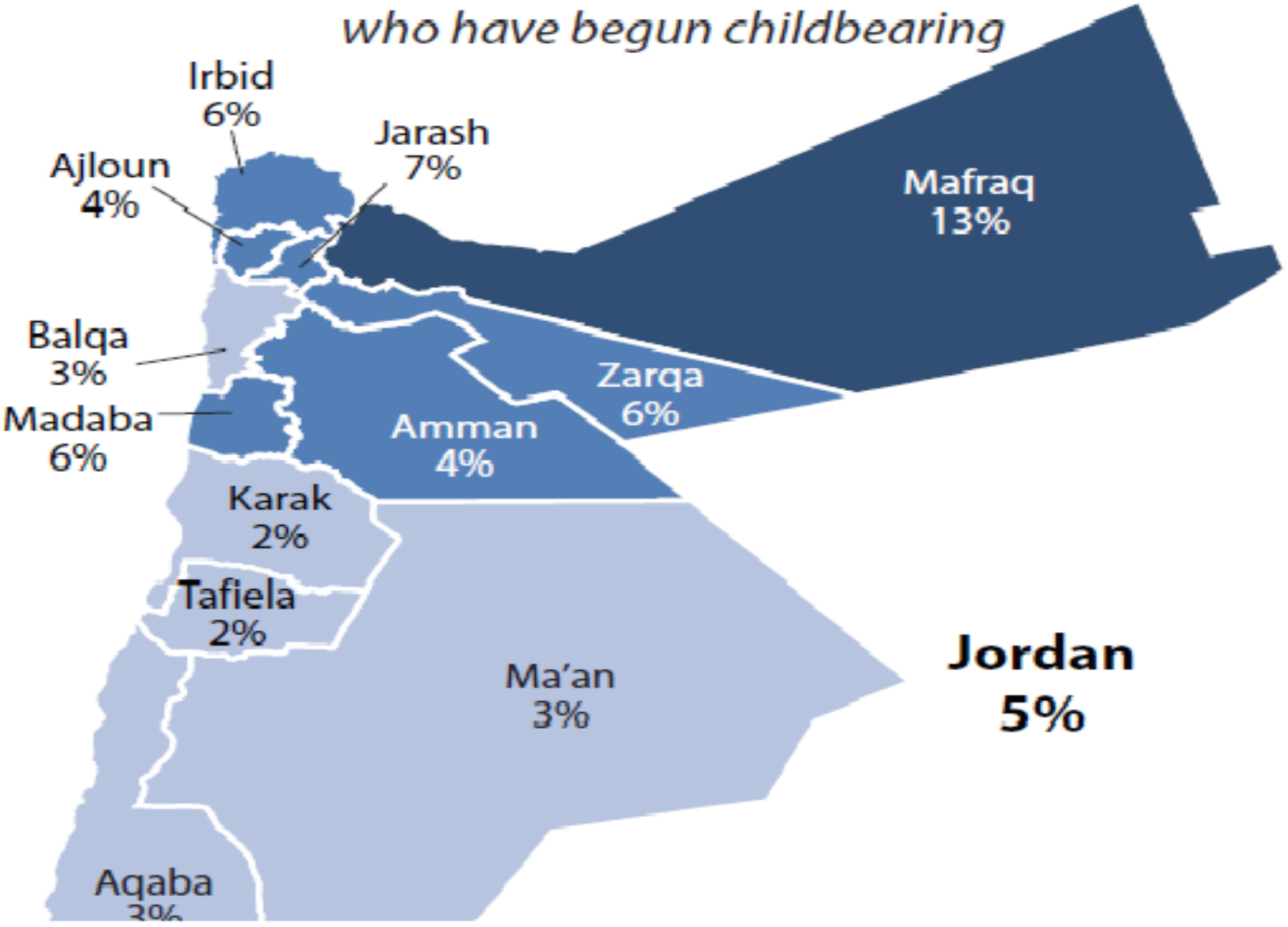
- 5% of women age 15-19 in Jordan have begun childbearing: 3% have had a live birth, and 2% were pregnant with their first child at the time of interview. As expected, the proportion of women age 15-19 who have begun childbearing rises rapidly with age, from 5% among women age 17 to 11% among those age 19..

- Teenage childbearing is more common among women in the Mafraq governorate (13%) and Syrian women (28%). The proportion of women who have started childbearing decreases with increasing level of education: more than 1 in 4 women age 15-19 with elementary education (27%) have begun childbearing compared with 8% of women who have attained preparatory

- education and 4% of those who have attained secondary education. Teenage childbearing also appears to decrease with wealth: 13% of women age 15-19 and women from the lowest wealth quintile have begun childbearing compared with 4% of those in the middle quintile

Teenage Childbearing by Governorate

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



Consanguinity

- More than one-quarter of ever-married women report that they are related to their current or former husband. Kinship marriages are becoming less common in Jordan, decreasing from 56% in 1990 to
- 28% in 2017-18.

Some Infectious Diseases

- Another risk to expectant women is malaria. It can lead to anaemia, which increases the risk for maternal and infant mortality and developmental problems for babies.

Maternal death risk.

- HIV infection is an increasing threat. Mother-to-child transmission of HIV continues to be a major problem, with up to 45 per cent of HIV-infected mothers transmitting infection to their children.

- Further, HIV is becoming a major cause of maternal mortality in highly affected countries in Southern Africa, especially with the TB re-emergency.

- A majority of these deaths and disabilities are preventable, being mainly due to insufficient care during pregnancy and delivery.

- Antenatal care centers should provide programs to seek out women unable or unwilling to attend a clinic and take the services to them, and so attaining a coverage of 100% as we are not far from reaching this number

Antenatal classes in Europe

topics covered by antenatal classes are:

- health in pregnancy, including a healthy diet
- exercises to keep fit and active during pregnancy
- what happens during labour and birth
- coping with labour and information about different types of pain relief
- relaxation techniques during labour and birth
- information about different kinds of birth and interventions
- caring for the baby, including feeding
- health after birth
- "refresher classes" for those who've already had a baby

Antenatal Care / Jordan JPFHS 2017

- Almost all ever-married women (98%) age 15-49 received at least one antenatal care (ANC) visit from a skilled provider (doctor or nurse/midwife).
- The timing and quantity of antenatal care visits are important. About 9 in 10 (92%) women age 15-49 made 4+ ANC visits, and 79% had the recommended 7+ visits.

- Syrians, on average, receive fewer ANC
- visits; only 62% of Syrian women received 7+ ANC visits compared with 82% of Jordanian women.
- Eighty-five percent of women had their first ANC visit in the first trimester of pregnancy.

Number of Antenatal Care Visits and Timing of First Visit by Nationality

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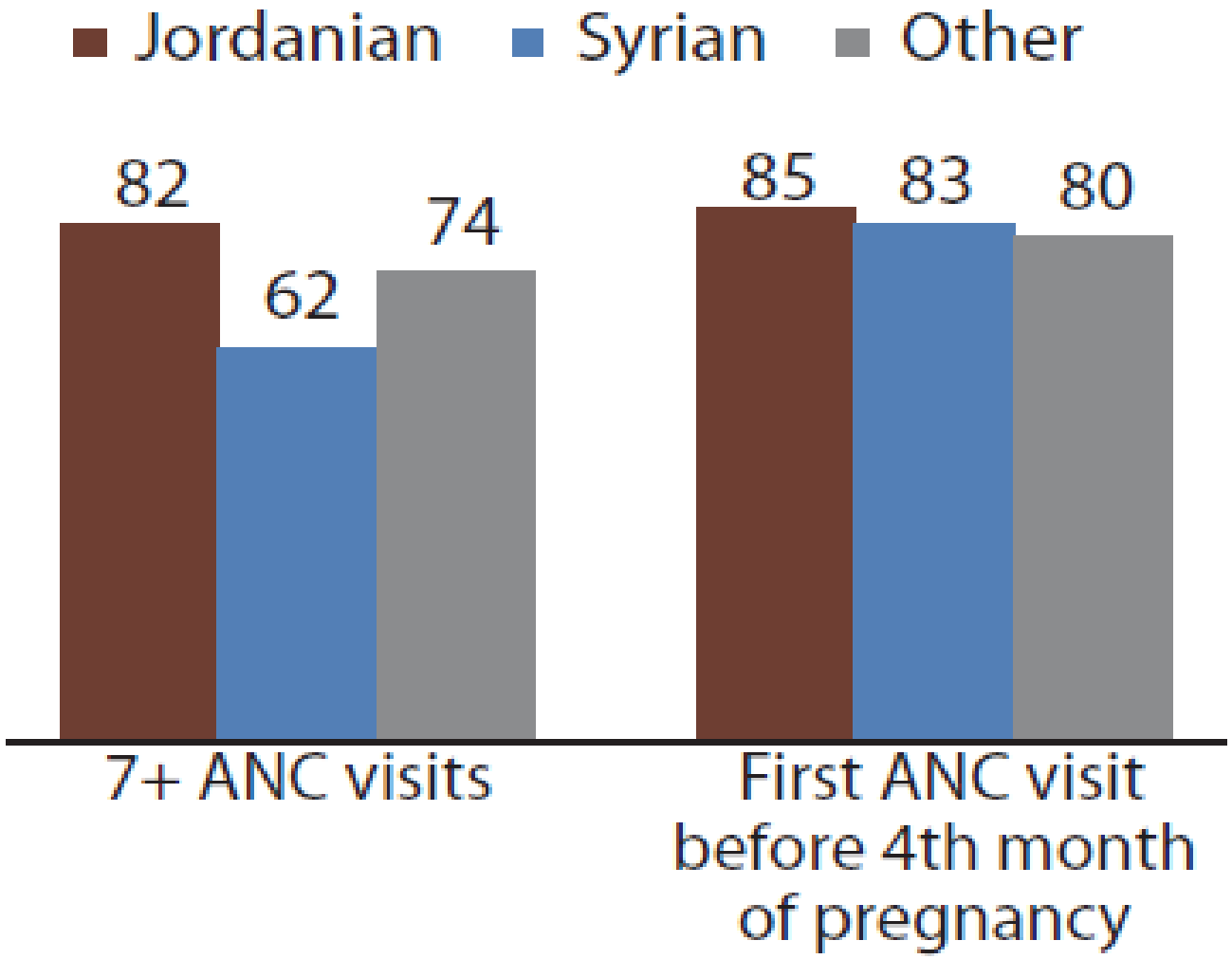


الحمد لله رب العالمين والصلاة والسلام علي سيدنا محمد الصادق الوعد الأمين ، اللهم أخرجنا من ظلمات الجهل والوهم ، إلى نور المعرفة والعلم..

• WHAT IS MATERNAL MORBIDITY??

- Any departure, subjective or objective, 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.

- ***Most frequently reported maternal morbidities "from the most to the least common**“ (taken from WHO's systematic review of maternal mortality and morbidity (2003) that covered all published and unpublished reports on maternal mortality and morbidities from 1997 to 2002)

- l.Hypertensive disorders
- 2.Stillbirth
- 3.Abortion
- 4.Hemorrhage
- 5.Preterm delivery
- 6.Anemia in pregnancy
- 7.Diabetes in pregnancy
- 8.Ectopic pregnancy
- 9. Perineal tears

10. Uterine rupture

- 11. Depression
- 12.0bstructed labour
- 13. Postpartum sepsis

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.

- In contrast, new onset of elevated blood pressure readings after 20 weeks' gestation mandates the consideration and exclusion of preeclampsia. Preeclampsia occurs in approximately 5% of all pregnancies, 10% of first pregnancies, and 20-25% of women with a history of chronic hypertension. Hypertensive disorders in pregnancy may cause maternal and fetal morbidity and remain a leading source of maternal morbidity.

- Although the exact path physiologic mechanism is not clearly understood, preeclampsia can be thought of as a disorder of endothelial function with vasospasm. (Fetal ischemia)
- Evidence also indicates that an altered maternal immune response to fetal/placental tissue may contribute to the development of preeclampsia.

RISK FACTORS

- **Maternal risk factors:**
- First pregnancy
- New partner/paternity
- Age younger than 18 years or older than 35 years
- History of preeclampsia
- Family history of preeclampsia in a first-degree relative
- Black race

Medical risk factors:

- Chronic hypertension
- Secondary causes of chronic hypertension such as hypercortisolism, hyperaldosteronism, pheochromocytoma, or renal artery stenosis
- Preexisting diabetes (type 1 or type 2), especially with microvascular disease
- Renal disease
- Systemic lupus erythematosus
- Obesity -

Anemia of pregnancy

- • Anaemia is defined during pregnancy as a haemoglobin (Hb) level below 11 Ogr/L (WHO, 1992). During pregnancy, the Hb level is lower than normal, and it varies according to gestational age. Most women with Hb levels below this limit have normal pregnancies. Using the above definition, 20 to 50% of women, and even more in some areas, are considered as anemic.

Anaemia

- Anaemia is very prevalent among women in developing countries, as a result of iron and/or folate deficiency and of malaria and other parasitic diseases. WHO estimated that around 60 percent of pregnant women in developing countries had nutritional anemia despite efforts in iron supplementation, fortification and dietary modification?

- Anaemia contributes to maternal mortality by making women more susceptible to infection and less able to withstand infection or the effects of haemorrhage. Anaemia is known to give rise to considerable long term morbidity in women, and at extreme levels may be associated with low birth weight.

PATHOPHYSIOLOGIC CAUSES

- ~ HEMODILUTION: Anemia during pregnancy can be thought of as a physiologic process of hemodilution; i.e. this anemia is relative and is not associated with a total decrease in oxygen carrying capacity.
- ~ IRON DEFICIENCY is responsible for 95% of anemia of pregnancy.
- ~ FOLATE DEFICIENC1 due to Increased turnover or requirements of folate can occur during pregnancy - because of the transfer of folate to the fetus- and during lactation; giving rise to Megaloblastic anemia.

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

EPIDEMOLOGY

- **Region % of women Hb <11**
- World 51
- Developing 56
- Developed 18
- Africa 52
- Asia (except Japan ..) 60
- Latin America 39
- North America 17
- Europe 17

Reproductive Tract Infections:

- Vulvovaginitis
- Endometritis (infection of the uterus)
- Pelvic Inflammatory disease (PID) an infection of the upper genital tract

Urinary Tract Infection :

- The short urethra & its intimate relationship with the vagina considerably increase the risk of a woman developing UTI.

- Symptoms are dysuria, frequency & urgency of micturition It has been estimated that about 20% of women may complain of an episode of dysuria each year.
- In over 80% of cases, E. coli is the infecting organism treatment is by antibiotics .

Gestational Diabetes

- Gestational diabetes is high blood sugar that develops during pregnancy and usually disappears after giving birth.

GDM

- It can occur at any stage of pregnancy, but is more common in the second half.
- It occurs if your body cannot produce enough insulin – a hormone that helps control blood sugar levels – to meet the extra needs in pregnancy.

GDM

- Gestational diabetes can cause problems to the mother as well as her baby during and after birth. But the risk of these problems happening can be reduced if it's detected and well managed.
-

PREVELANCE OF GDM

- The prevalence of GDM, as reported in different studies, varies between 1% and 14% in all pregnancies depending on the genetic characteristics and environment of the population under study, screening and diagnostic methods employed as well as on prevalence of type 2 diabetes mellitus

. Risk factors for gestational diabetes

- **Age greater than 25.** Women older than age 25 are more likely to develop gestational diabetes.
- **Family or personal history**
- **Excess weight.**
- **Nonwhite race.**

- 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 :

Complications that may affect the baby

- **Excessive birth weight.**
- **Early (preterm) birth and respiratory distress syndrome. .**
- **Low blood sugar (hypoglycemia).**
- **Type 2 diabetes later in life.**
- Untreated gestational diabetes can result in a baby's death either before or shortly after birth.

Complications that may affect the mother

- induced labour or a caesarean section
- Polyhydramnios
- premature birth
- pre-eclampsia
- Stillbirth
- type 2 diabetes

Sexually transmitted diseases:

These are diseases that are transmitted through sexual contact. Can cause pain, infertility & death if not treated .

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

Examples of STDs:

- 1) Gonorrhea
- 2) syphilis
- 3) chlamydia.
- 4) genital herpes
- 5) trichomonas vaginatis

Sexually Transmitted Infections (STIs) /JPFHS 2017

- 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%).

Causes of maternal morbidities in Jordan

- Urinary tract infections
- Vaginal infections
- Anemia
- Early bleeding
- Hypertension
- Gestational diabetes
- Pre-eclampsia
- Late bleeding
- Multiple pregnancy
- Kidney diseases
- Thyroid disorders
- Disseminated intravascular coagulopathy
- Heart Disease

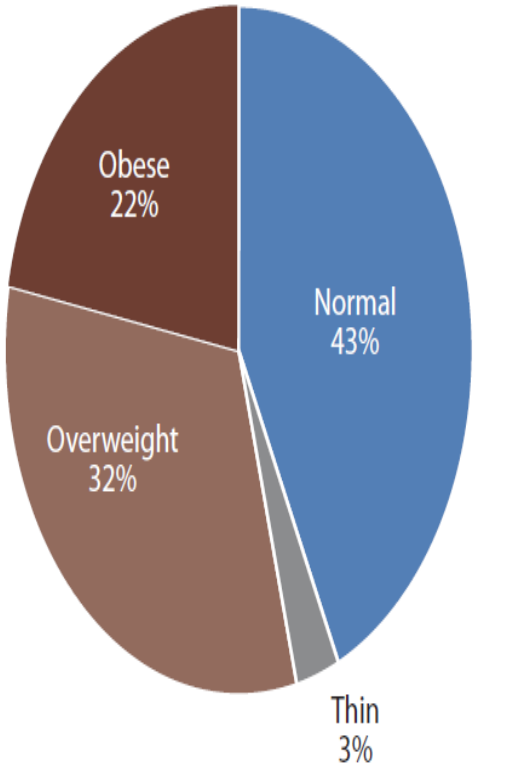
Women's Nutritional Status

The 2017-18 JPFHS took weight and height measurements of ever-married women age 15-49. About two-fifths (43%) of women are within the normal range for body mass index (BMI). Three percent of women are thin, while 54% are overweight or obese.

Overweight/obesity increases with age; 81% of women age 40-49 are overweight or obese compared with 26% of women 15-19. Women's nutritional status has remained stable since 2009.

Anaemia

Anaemia is more common in women than in children – 43% of women age 15-49 are anaemic. Anaemia is relatively high among women across all educational and wealth categories. Anaemia in women ranges from 35% in Madaba to 49% in Ma'an.



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Iron Supplementation

Pregnant women should take iron tablets for at least 90 days during pregnancy to prevent anaemia and other complications. Half of women (49%) received the recommended 90 days of iron supplements;22% received no iron supplements during their last pregnancy.

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Definition: MATERNAL MORTALITY

Is the number of resident maternal deaths within 42 days of pregnancy termination due to complications of pregnancy, childbirth, and the puerperium in a specified geographic area (country, state, county, etc.) divided by total resident live births for the same geographic area for a specified time period, usually a calendar year, multiplied by 100,000.

- • The maternal mortality rate is sometimes referred to as a **maternal mortality ratio** as the rate is 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.

- Pregnancy-associated deaths include not only deaths commonly associated with pregnancy such as hemorrhage, pregnancy-induced hypertension, and embolism—which are captured in the WHO definition—but also deaths not traditionally considered to be related to pregnancy such as accidents, homicide, and suicide.

Maternal Mortality General Consideration

- Maternal mortality is the leading cause of death among women of reproductive age in most of the developing world. Globally, an estimated **500,000** women die as a result of pregnancy each year. It is the statistical indicator, which shows the greatest disparity between developed, and developing countries.

- 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.
- Maternal mortality constitutes a small part of the larger maternal morbidity and suffering, because for every maternal death there are a lot of women suffering from acute and chronic illnesses during pregnancy, delivery and 6 weeks after.

- Most of the deaths, 99%, are in developing countries the magnitude of maternal death is very high in Sub-Saharan Africa and South Asia, where material mortality ratios (material deaths per 100,000 live births) may be as much as 200 times higher than those in industrial countries.

- **This is widest disparity in human development indicators yet reported.**
- This difference is further expressed when comparing lifetime risk of women: one in every 21 women in Africa dies of complications of pregnancy, delivery, or abortion, while with only one in every 10,000 in Northern Europe.

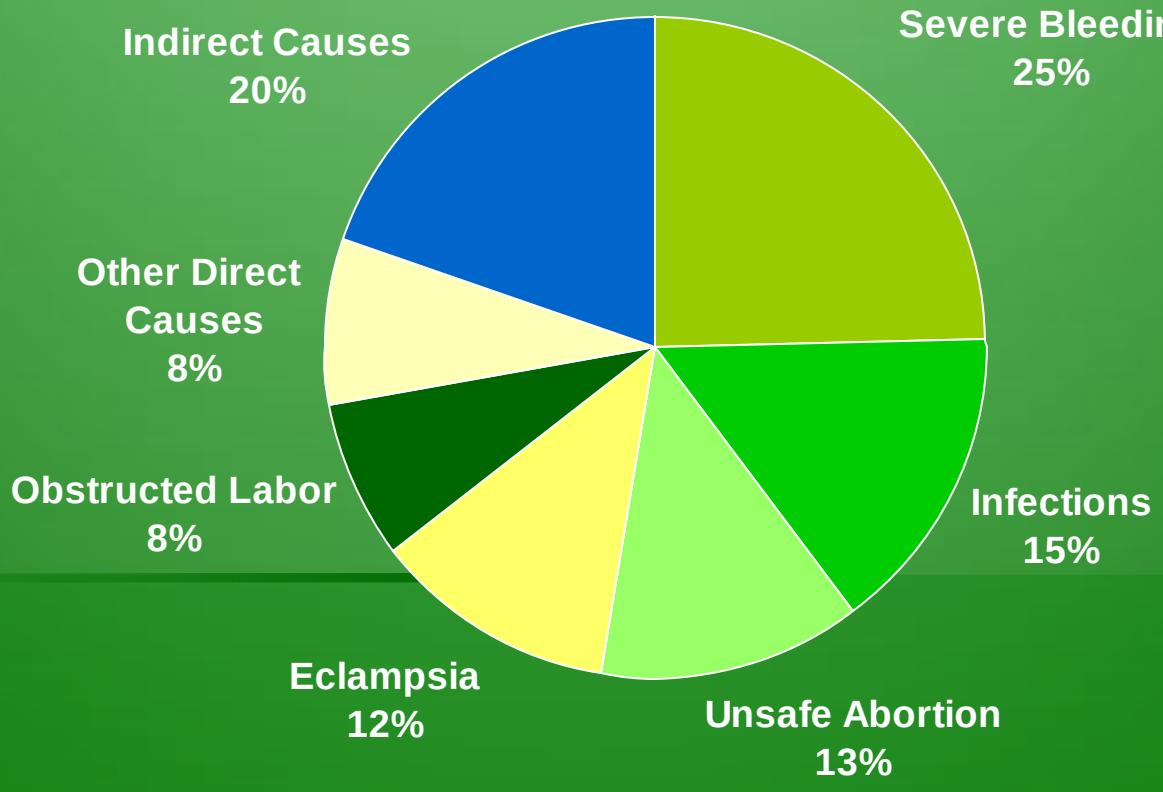
- The maternal mortality rate in Western Europe, a century ago, was less than most developing countries.
- Poverty, though not a disease in biological sense, it affects maternal health adversely and is reflected by maternal death. The difference in maternal mortality between developed and developing countries strengthen the above fact.

- 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.

- Concern for maternal mortality is not only for the mother’s life. It is related to:
- • 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

Pregnancy and Childbirth-Related Deaths to Women, by Cause, 1997

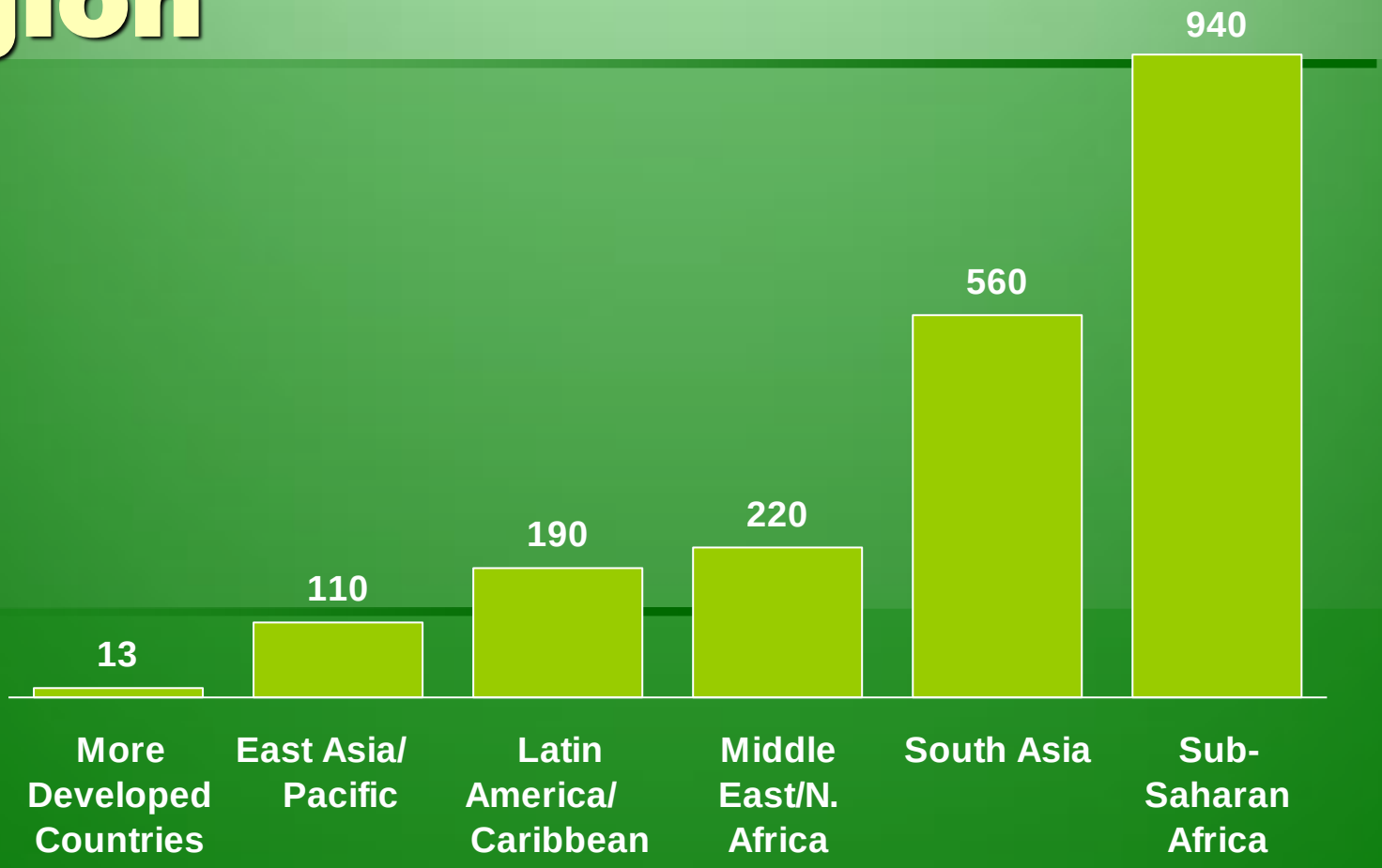


Note: Total exceeds 100 percent due to rounding.
Source: World Health Organization, *Reduction of Maternal Mortality: A Joint WHO/UNFPA/UNICEF/World Bank Statement*, Geneva, 1999.

Notes on 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.

Maternal Mortality, by Region



Source: UNICEF, *Maternal Mortality in 2000: Estimates Developed by WHO, UNICEF, and UNFPA,* 2003.

Notes on Maternal Mortality, by Region

- Over 99 percent of maternal deaths occur in less developed countries, particularly in Asia and Africa.

- **While high-quality, accessible health care has made maternal death a rare event in more developed countries, the lack of such health care has fatal consequences for pregnant women in less developed countries.**


SUSTAINABLE
DEVELOPMENT
GOALS
2030

-
- 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. The United Nations Millennium Declaration, signed in September 2000, committed world leaders to combat **poverty, hunger, disease, illiteracy, environmental degradation, and discrimination against women.** The MDGs were derived from this Declaration, and had specific targets and indicators. The MDGs have been superseded by the Sustainable Development Goals, a set of 17 integrated and indivisible goals that build on the achievements of the MDGs but are broader, deeper and far more ambitious in scope.

Overview

- While SDG 3 is the main SDG with an explicit focus on health,
- at least 10 other goals are also concerned with health issues.
- In total, more than 50 SDG indicators have been agreed
- upon internationally to measure health outcomes, proximal
- determinants of health or health-service provision (1). These
- health-related indicators may be grouped into the following
- seven thematic areas:
- 1• reproductive, maternal, newborn and child health
- 2• infectious diseases
- 3• noncommunicable diseases (NCDs) and mental health
- 4• injuries and violence
- 5• universal health coverage (UHC) and health systems
- 6• environmental risks
- 7• health risks and disease outbreaks.

Post-2015 UN development agenda

- 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

- The Sustainable Development Goals (SDGs) provides a bold and ambitious agenda for the future. WHO is committed to helping the world meet the SDGs by championing health across all the goals. WHO's core mission is to promote health, alongside keeping the world safe and serving the vulnerable. Beyond fighting disease, we will work to ensure healthy lives and promote well-being for all at all ages, leaving no-one behind.
  Our target is 1 billion more people enjoying better health and well-being by 2023.

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

Millennium development goal 5 (MDG5) Target 5A

Calls for the reduction of maternal mortality rate (MMR) by three quarters between 2000 and 2015

Maternal Mortality in Jordan

1990-2008 WHO, UNICEF, UNFPA, WB

(SEP, 2010)

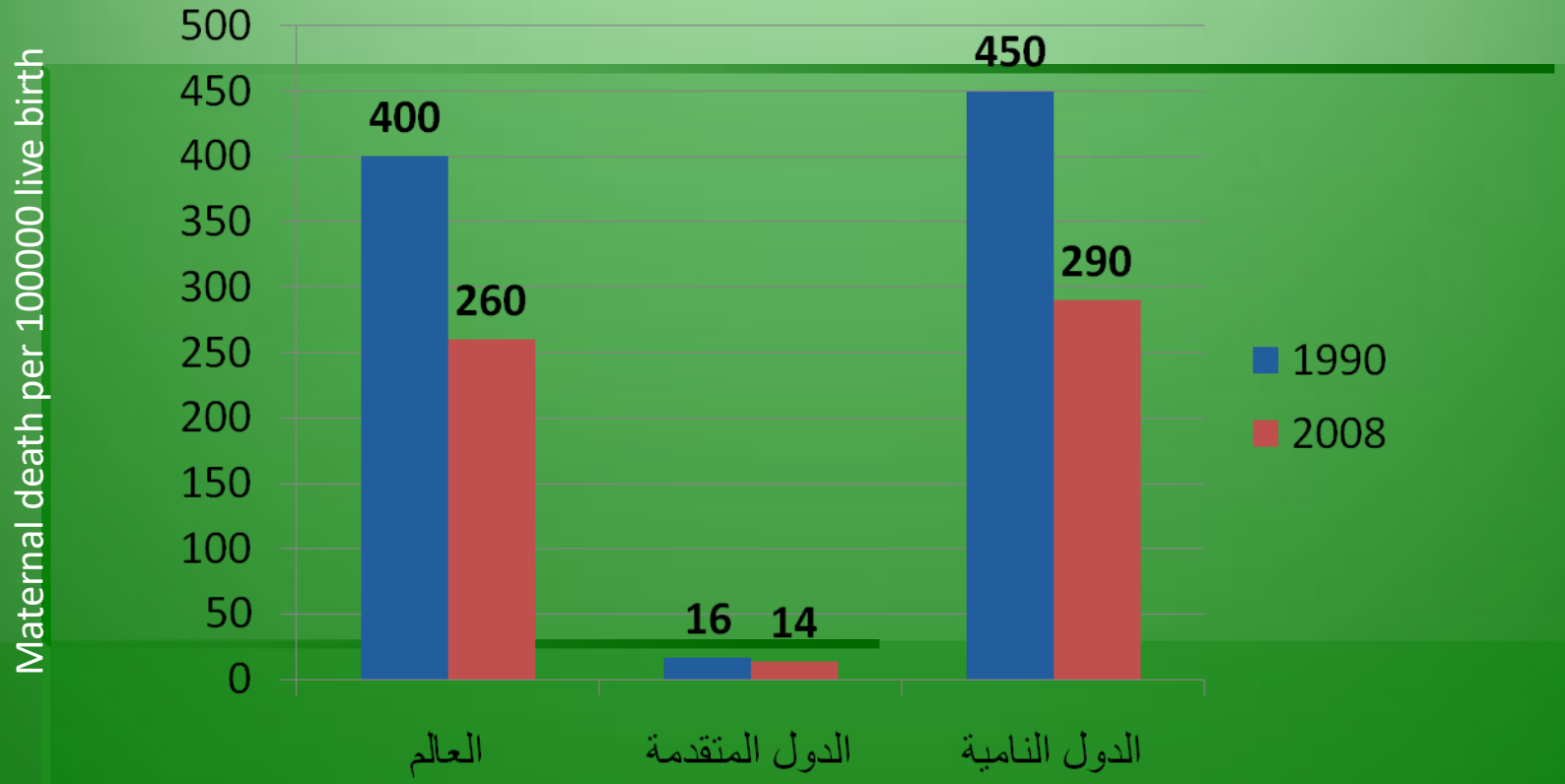
What does that mean for Jordan?

Reduction of MMR from 41 maternal death per 100,000 live births in 2000

To

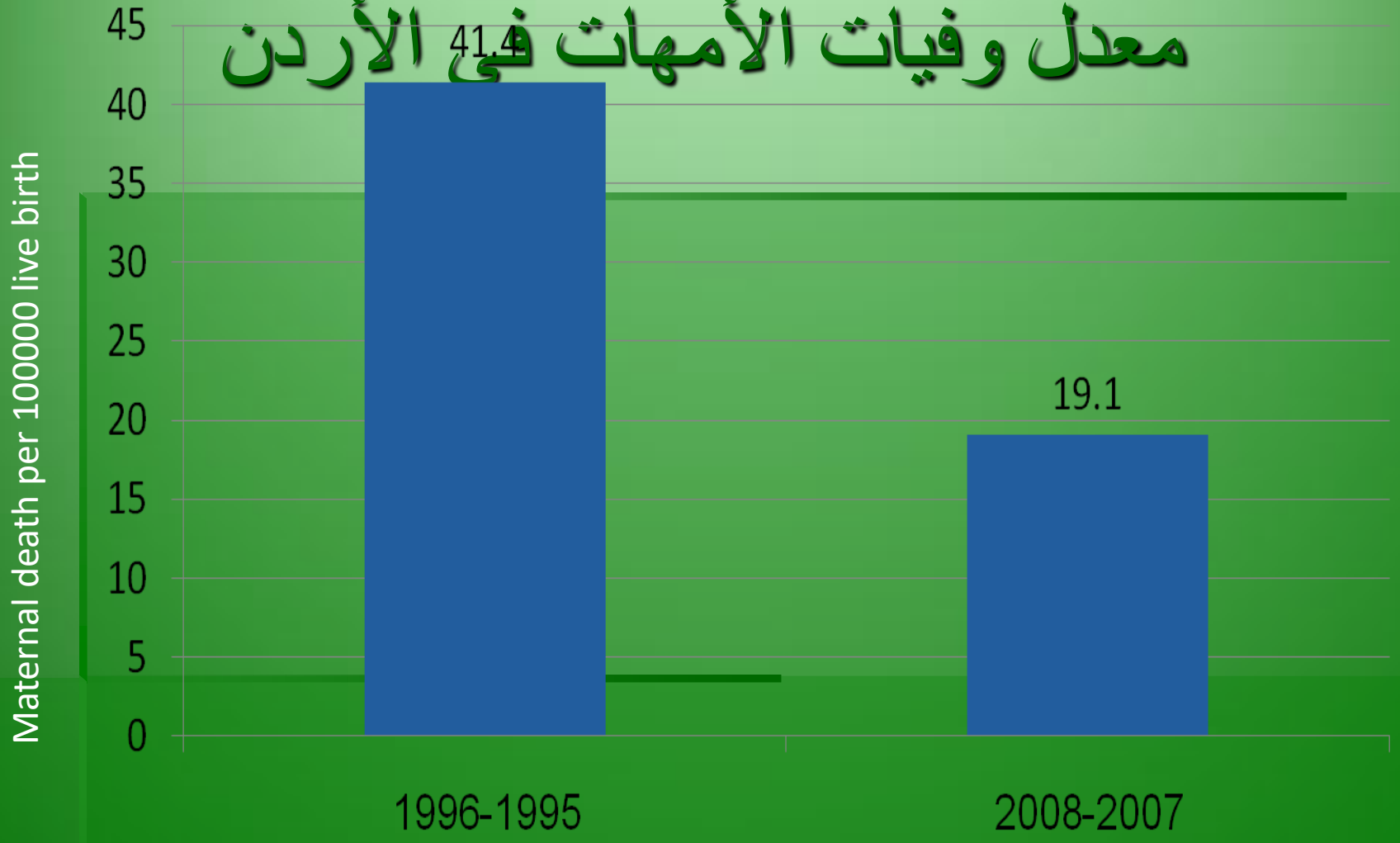
12/100,000 by the year 2015

اتجاهات معدل وفيات الأمهات عالميا



Trends in Maternal Mortality 1990-2008 WHO, UNICEF, UNFPA, WB (SEP, 2010)

معدل وفيات الأمهات فى الأردن



Maternal Mortality Study – Jordan 2007-2008- Higher Population Council, 2009

وفيات الأمهات في الأردن مقارنة بالدول العربية

Causes of Maternal Mortality

Haemaorrage

- 25%

Thromoboembolism

Septisemia

أسباب وفيات الأمهات في الأردن(٢٠٠٧-٢٠٠٨)
(الاسباب غير المباشرة)

الاسباب غير المباشرة	٢٦.٣%
امراض القلب	١٠.٥%
امراض الجهاز العصبي المركزي: الحوادث الوعائية الدماغية،الصرع	٧.٩%
الامراض السارية	٥.٢%
فقر الدم المزمن	١.٣%
الفشل الكلوي	١.٣%

المصدر:الدراسة الوطنية لوفيات الامهات في الاردن(٢٠٠٧-٢٠٠٨)،المجلس الاعلى

Key Facts WHO 2016

- Every day, approximately 830 women die from preventable causes related to pregnancy and childbirth.
- 99% of all maternal deaths occur in developing countries.
- Maternal mortality is higher in women living in rural areas and among poorer communities.

- Young adolescents face a higher risk of complications and death as a result of pregnancy than other women.
- Skilled care before, during and after childbirth can save the lives of women and newborn babies.

- Between 1990 and 2015, maternal mortality worldwide dropped by about 44%.
- Between 2016 and 2030, as part of the Sustainable Development Goals, the target is to reduce the global maternal mortality ratio to less than 70 per 100 000 live births

Delivery

- 3W When, Where and Who
- 3 c’s
- • Clean hands
- • Clean delivery service
- • Clean cutting of the cord
- How :Normal or CS

Place of Delivery by Nationality

Percent distribution of live births in the five years before the survey

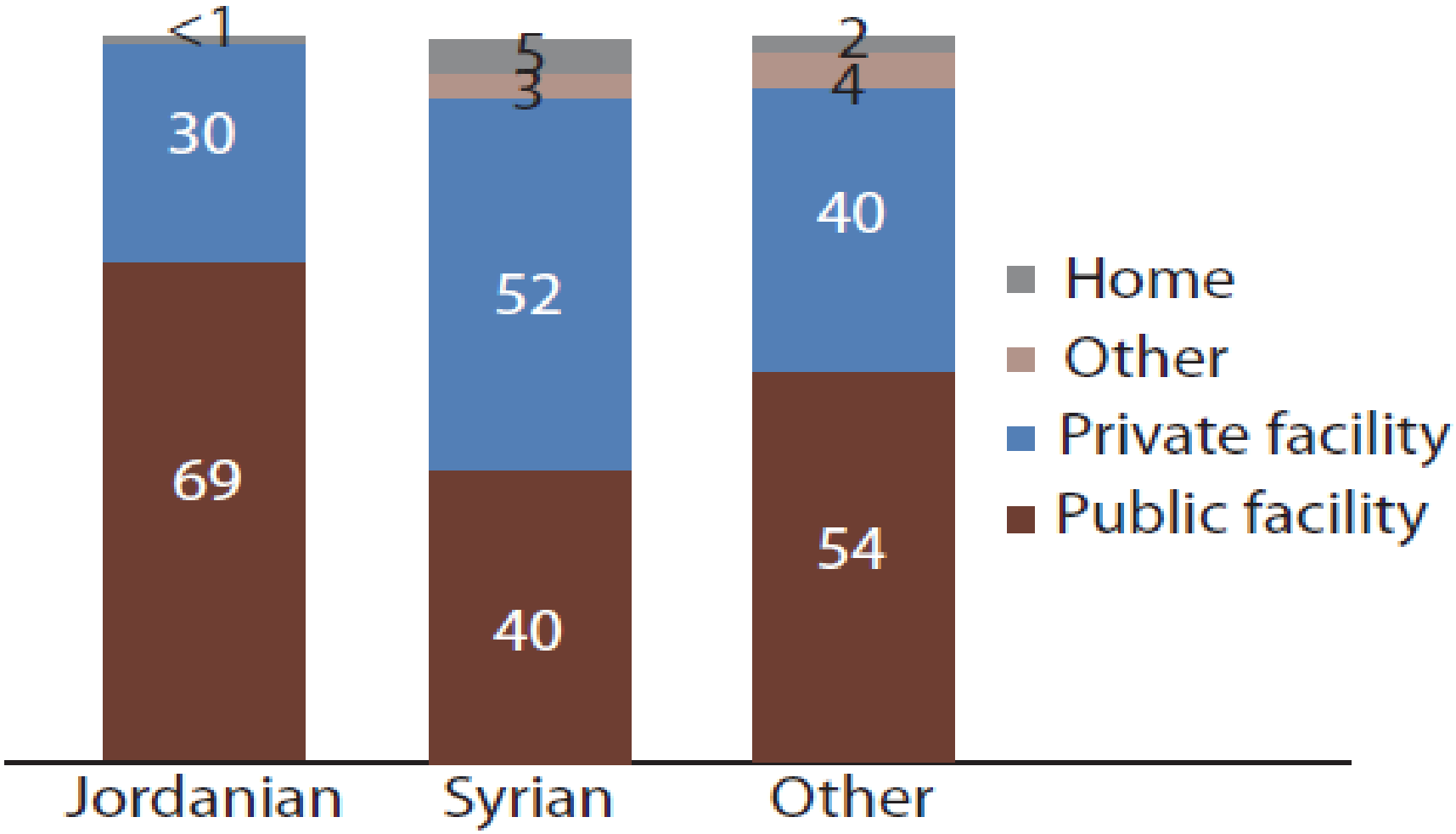
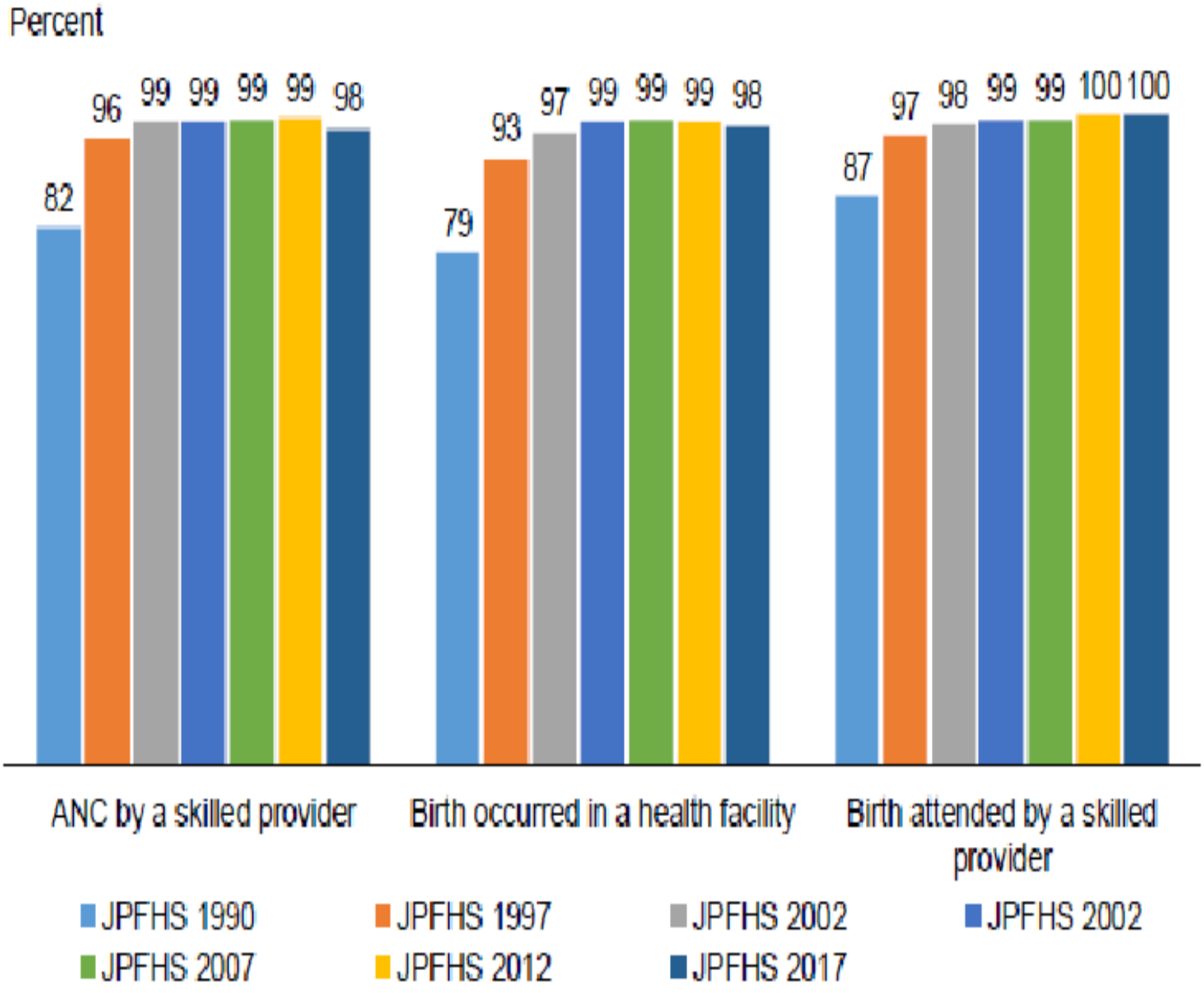
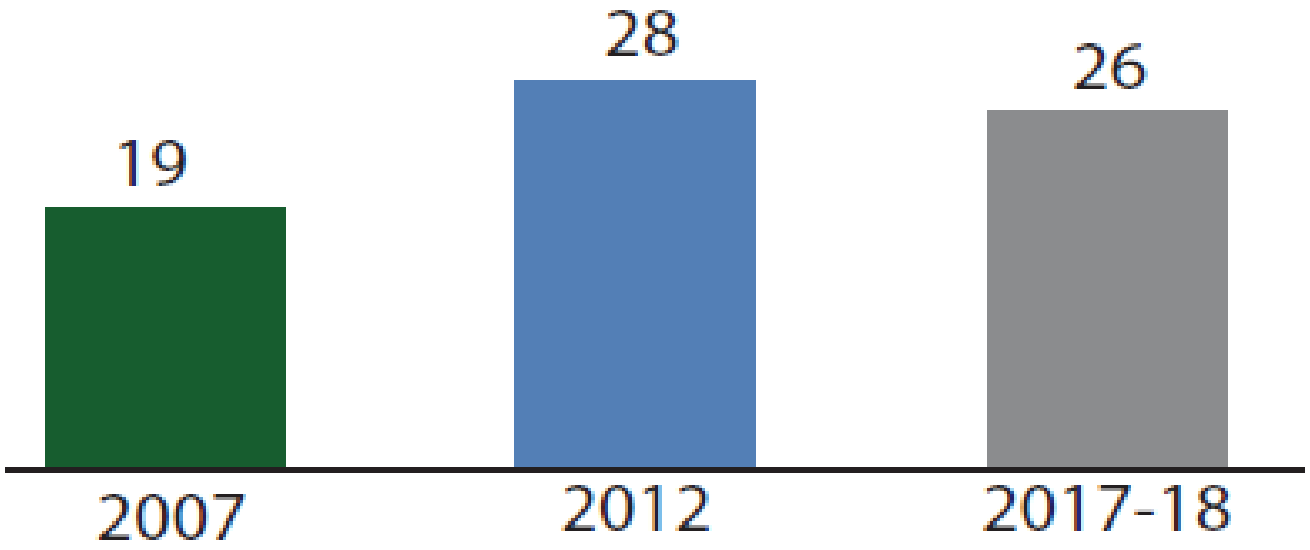


Figure 5 Trends in maternal health care, 1990-2017



Trends in Caesarian Sections

Percent of women age 15-49 with a live birth in the five years before the survey



2017-18 Jordan Population and Family Health Survey

Post Natal

- • 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**

- Postnatal care helps prevent complications after childbirth. **Eighty-three percent of women age 15-49 received a postnatal checkup within two days of delivery; 12% received no postnatal check. Eighty-six percent of newborns received a postnatal checkup within two days of birth; 13% received no postnatal check.**


Thank you!!!

تم بحمد الله