**Sheet no.: 9  
Refer to slide number: 2  
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# we wrote only extra notes , so please refer to the slides

# The indicator that reflects the level of primary health care **is mortalities and morbidities**...but **morbidities reflect that more** . and morbidity usually is **less sensitive** , and mortality only in complicated consequences....

# Maternal morbidities/mortalities : is the morbidity/mortality that happens during pregnancy, and delivery, and six weeks after delivery..only in this period of time we call it ( **Maternal** morbidity, mortality )

# Morbidity > مراضة Mortality > death

# if any female feels sick >> she doesn't included under maternal morbidity and mortality...

# the most important causes of maternal morbidity globally: (memorize first 5,, and have an idea about the rest of them and in **decending** arrangement are :

* l.Hypertensive disorders ( you can't find it in the developed world cuz of monitoring ,, and before they reach it , they get the treatment ,,while in developing, they don't have antenatal )
* 2.Stillbirth ( the baby is born **dead**)
* 3.Abortion
* 4.Hemorrhage
* 5.Preterm delivery
* 6.Anemia in pregnancy ( comes no.1 or 2 in Jordan cuz Jordan is between developed and developing cases )
* 7.Diabetes in pregnancy
* 8.Ectopic pregnancy ( pregnancy out of uterus )
* 9. Perineal tears

10. Uterine rupture

* 11. Depression (psychiatric illnesses)not exist in developed world any more
* 12.0bstructed labour
* 13. Postpartum sepsis (حمى النفاس) ( infection during pregnancy and in the first 6 weeks after that)

# These causes are differ in developing , developed countries according to **services and social** **class there..**

# When we say globally >>> we mean **developing** world ,,, because 90% of mortality(maternal and child ) and morbidity cases are in the developing world...

***# pregnancy disorders :***

1) Hypertension and its 2 types :

**A)Pregnancy induced hypertension** >> its only because of pregnancy and disappear after that completely >>..(preclapsia)

**B) Chronic hypertension** : before pregnancy she was hypertensive >> she will be at higher risk of preeclampsia..and she needs management before , during , after pregnancy ..

# In maternal .. we care about the induced type ( preeclampsia or toxemia)

# Toxemia : تسمم but not an infection ,, its disturbances **in renal** functions >> **polyurea, edema**

# The difference btw the 2 types of hypertension > the induced type happens after pregnancy by 20 weeks ,but side effects appear after 30 weeks of pregnancy and it would be relieved completely after pregnancy , while the chronic type happened before pregnancy...

**# Risk factors of toxemia:**

1) First pregnancy ( higher risk than second or third one ) unlike the chronic type and gestational diabetes, as no. of pregnancies increases,, the risk will increases as well)

2) Age ( above 35)

3) History ( cuz its like autoimmune disease ) but pregnancy is not a disease , its only physiologic and psychological stress, especially the first pregnancy .. we will see how her body will respond to pregnancy ( higher risk ) for the first time

4) Family history ( genetic factor )

5) History of preeclampsia >> if she had it in the first pregnancy , there is possibility to have it in the second and third pregnancy

6) History of hypertension

7)Black race >> at higher risk than white race

# The above factors are important because the main factor is not known...

# preconceptional services are responsible to control diabetes and hypertension of pregnant lady ..

8) Chronic hypertension , secondary causes of hypertension, preexistent diabetes

9) SLE ( autoimmune disease)

10) Obesity , if she was obese , her weight must be reduced before she get pregnant , not during it ( halopreeclampsia)>> increase her weight during pregnancy means high risk of preeclampsia

**# anemia during pregnancy** : is the second cause of morbidity in Jordan and above 25% are in Jordan >> means that there Hb level is less than 10ml ( she was anemic before pregnancy)

WHO consider also Hb =11 is anemic

# So the policy to solve anemia prob. is **to give iron routinely starting from the second month .**

#In relation to pathophysiology : anemia will appear **more in hemodialation** << when the volume of blood of pregnant lady increased **to 5-6 L**

#The most important cause of anemia during pregnancy **>> iron deficiency then folic acid deficiency**

#Risk factors of anemia >>>multiple pregnancy of twins cuz she will be at a higher demand,, social class ,malnutrition , alcohol consumption

# # **51 % of women in the world** ( developing) are anemic, in Europe **17** %, in Africa **52%**, most of developing world avg **of 56%**

# In Jordan anemia in 2002 **was 26%** ....in 2009 was **25%** ..in 20012 was **34%** very high and close to developing world.

#In children also we have anemia problem ... and in all who have special needs ( children , elderly, pregnant)

#In 2012 in women **15-49** anemia was **34%** while in child was **32%**

# Any thing more than 1000ml( 1L) after labor is considered postpartum hemorrhage..

# One of the most important cause of excessive hemorrhage is **uterine atony** : exhaustion of uterus and relaxation of uterus without contraction >> high risk in multiple preg.5th.6th baby, uterus cant go back again to contract, preeclampsia ,maternal hypotension,( skip them)

\*also gestational diabetes is another cause of morbidity (starts during pregnancy and ends after delivery)

\* Direct causes of maternal morbidity have a direct relation with pregnancy ( due to pregnancy) while the indirect causes are not due to pregnancy or have a relation to it.

**\*WHO IS AT HIGHER RISK OF DEVELOPING GESTATIONAL DIABETES?**1- mothers > 35 or >40  
2- increased parity  
3- also pregnant women in more civilized cities are more prone to develop gestational diabetes

\*gestational hypertension develops in pregnant ladies that are pregnant for the first time

**\*causes of maternal morbidity:**  
1- first cause: genial infections(vaginal infections,UTI(20.2%))   
2- the 3rd cause: anemia  
3- the 6th cause: gestational diabetes

\*the increased rate of cesarean sections in Jordan means more complicated pregnancies and increased mortality because in Jordan cesarean section is restricted to cases where there is a danger on the mother or on the baby.

\*the rate of cesarean sections dropped from 27.7 to 18.5 and that indicates a better health care.

**\*causes of maternal mortalities globally:**   
1- first direct cause: bleeding 25% ( >50% is postpartum ) while in developed world, bleeding may not be a problem because the prevalence of anemia during pregnancy is much less  
2- 2nd direct cause: infections  
3- 4th direct cause: preeclampsia   
4- indirect causes ( aggregated due to pregnancy): 20%

\*three quarters of the causes of maternal deaths are due to direct complications

\*99% of complications that happen during pregnancy could have been resolved if a proper care was given before or in the early stages of pregnancy.

\*infections happen during the pregnancy and after the delivery (especially in home deliveries)

\*the most important practice to prevent eclampsia is early detection and treatment

\*global mortalities represents the developing world more than the developed world because more than 90% (over 99%) of maternal mortalities happens in the developing world while in some developed countries the scored 0,2,3 per 100.000 of maternal mortalities

\*when rates of maternal mortalities become closer to that of the developed world : that means that the health care provided is enhancing

\*the risk of having diseases during pregnancy is higher in mothers below 20 years old

\*adolescence or teen births' rate is low in Jordan because:   
1- the marriage age is high (24 years old)   
2- no births outside marriage  
while in developing world, teens' birth is high because:  
1- marriage age is low ( 17 or 18 )  
2- many births happen outside marriage

\*in the last few years antenatal care and family planning increased and that led to decreased fertility

\*the rate of maternal mortality have dropped by 50% since 1995(14.4) till 2008(19.1)

\*maternal mortality tests are held every 10 to 15 years

\*Jordan is the 4th developing country in providing health care.

**\*direct causes of maternal mortalities in Jordan:**1-1st cause: bleeding 25% (similar to developed countries)  
2- 2nd cause: thromboembolic phenomena   
3- 3rd cause: septicemia

**\*indirect causes of maternal mortalities in Jordan :**1- cardiac diseases ( the most important)  
2- cerebrovascular accidents like, stroke  
3- infectious diseases