بسم الله الرحمن الرحيم

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

Definition: MATERNAL MORTALITY

Death of women during pregnancy, labor, and six weeks after labor.

mortality to morbidity ratio is 1:20
For every 20 morbidities there is a single mortality case.

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.

Causes of maternal mortalities are either direct (preventable) or indirect causes:
Causes directly related to pregnancy, labor and postpartum : hemorrhage, obstructed labor, preeclampsia…
Indirect causes include: cancers, accidents, severe anemia, heart diseases…

- 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

WHO (2018) report estimated 303,000 women worldwide died due to maternal causes, usually this number is underestimated because not all deaths are reported.

- 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.

80% of maternal mortality causes are direct ones due to pregnancy, birth, or afterbirth. These causes can be prevented by proper services like prenatal care, healthy hospitalized labor, and postpartum care.

- 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.

Massive gap between developed and developing countries in maternal mortality rates.

- **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.

Chronic nutritional diseases like **chronic iron deficiency anemia** might end up with maternal mortality.

- 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.

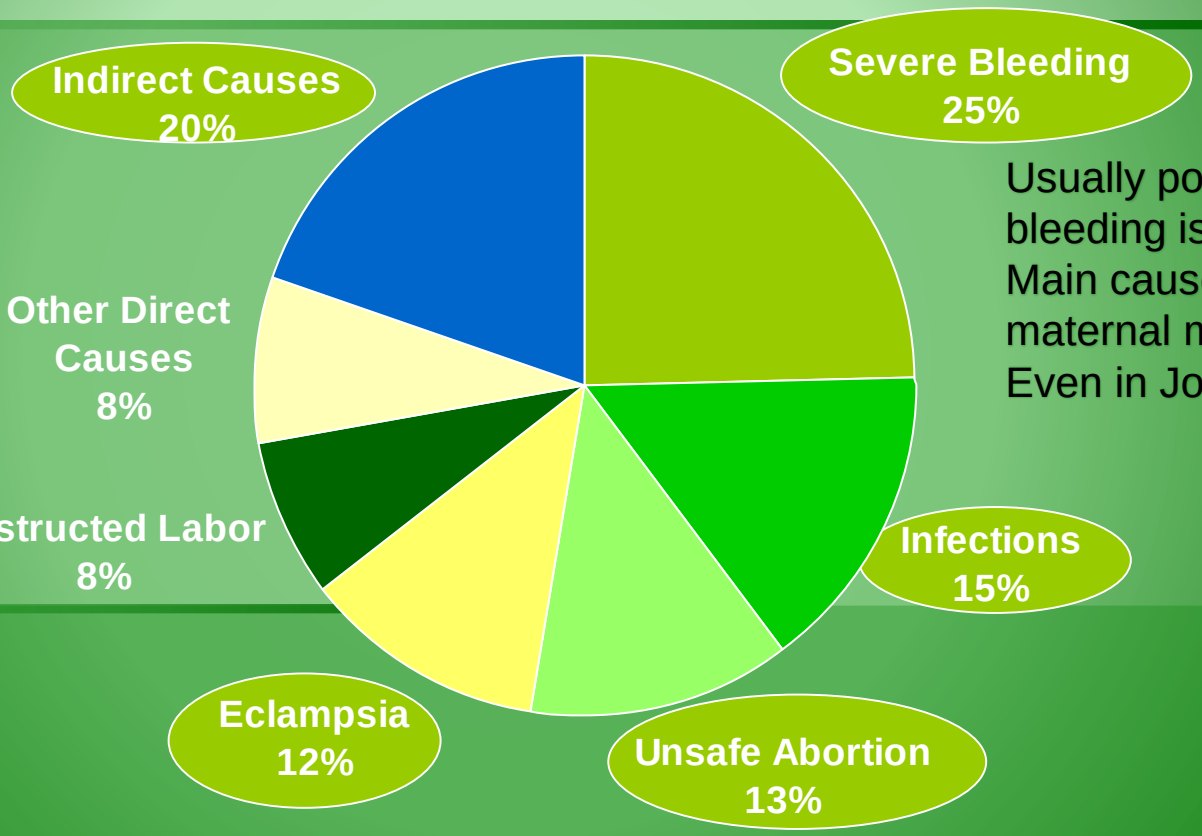
303,000 is the worldwide estimation of women deaths due to maternal causes, while **7 million** newborns die due to these maternal health problems.

- 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

Reflecting the developing world, where 99% of maternal mortalities take place.
Direct causes: 80%



Usually postpartum bleeding is the Main cause of maternal mortalities Even in Jordan.

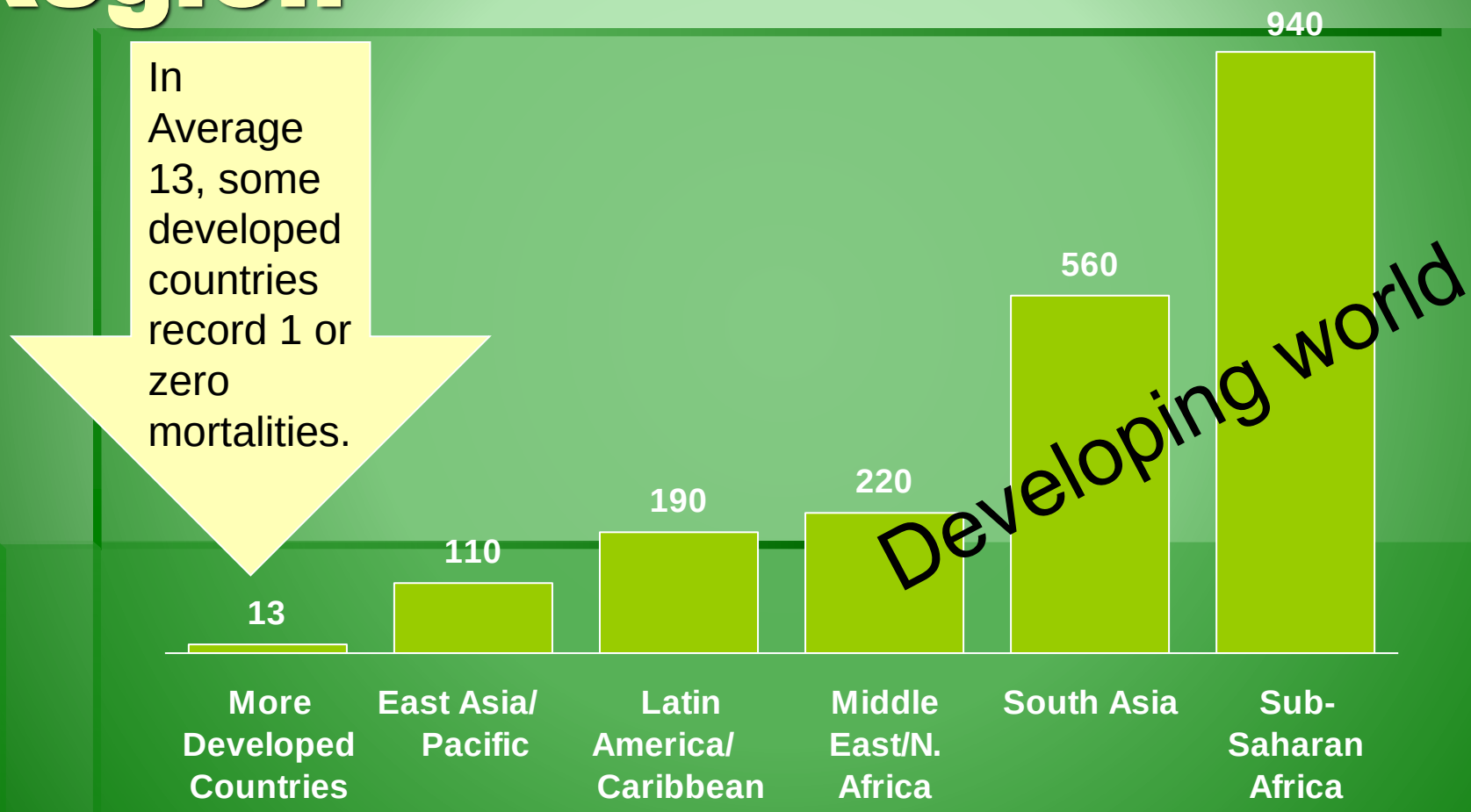
Especially induced ones

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 (+accidents and cancers).**

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.

NCDs are the main causes of death in adults.

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)

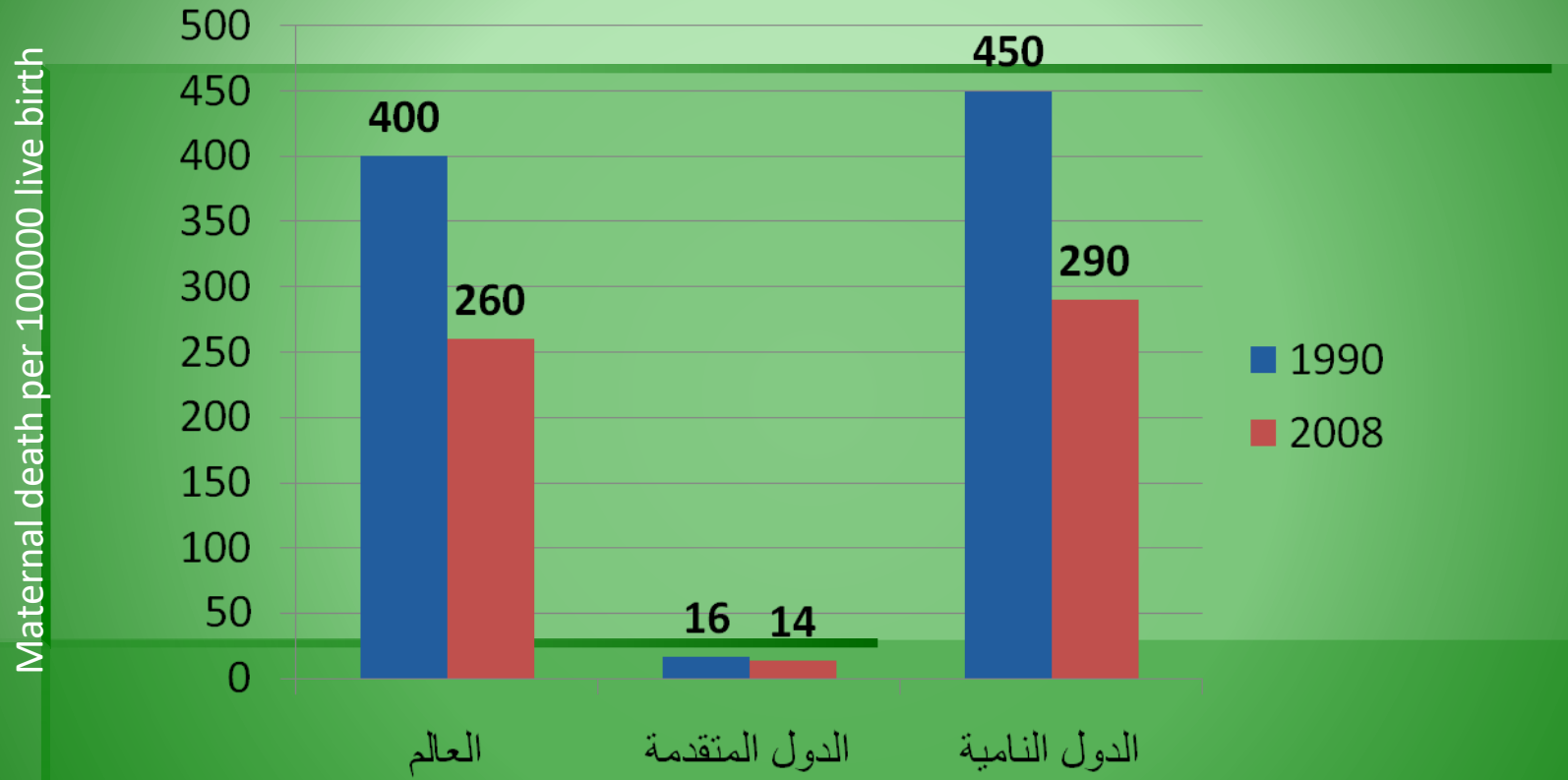
What does that mean for Jordan?

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

To

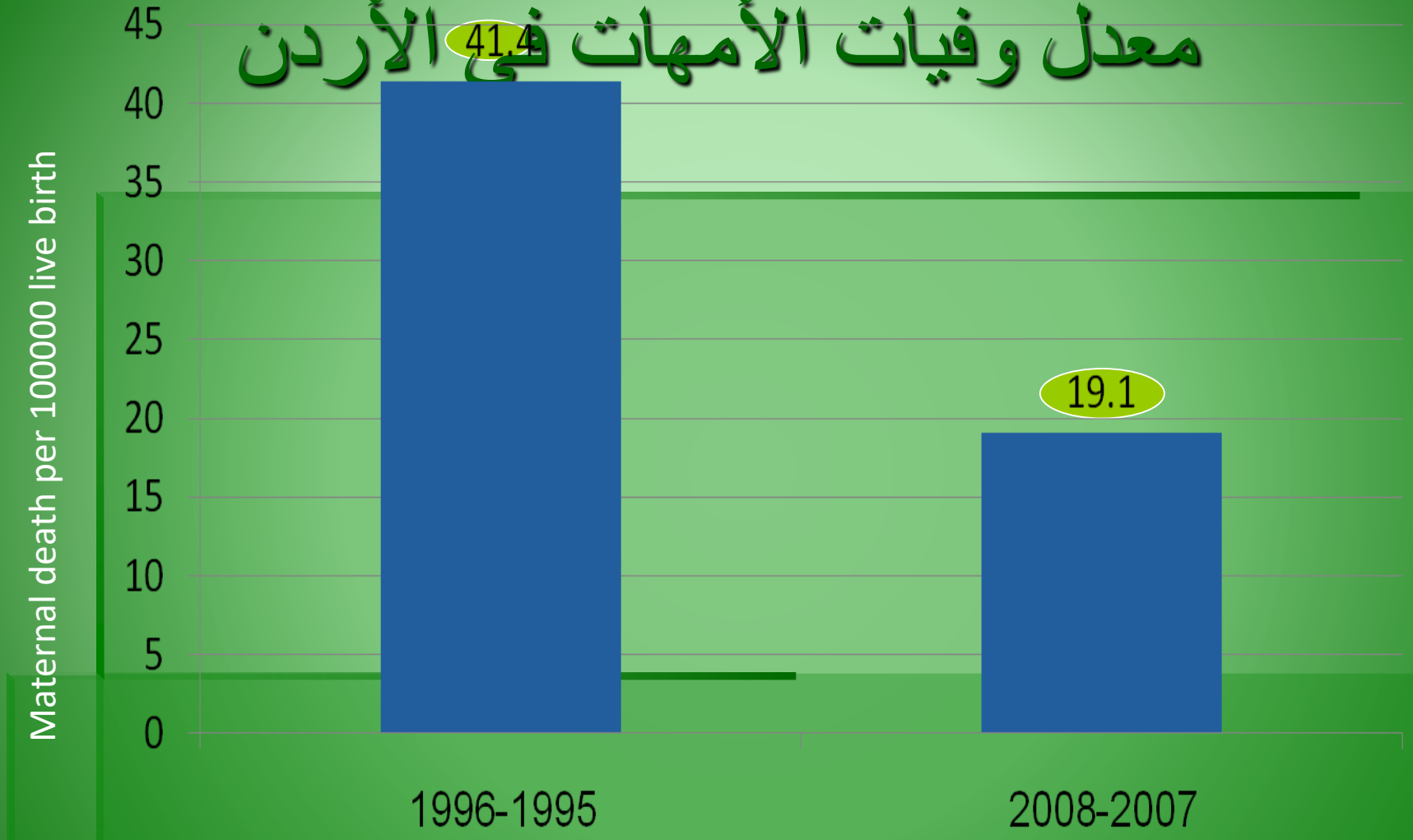
12/100,000 by the year 2015

اتجاهات معدل وفيات الأمهات عالميا



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

معدل وفيات الأمهات في الأردن



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

وفيات الأمهات في الأردن مقارنة بالدول العربية

Wealthy countries show less mortality rates, this emphasizes that poverty is a great risk factor.

Causes of Maternal Mortality (direct causes):

Haemaorrage

- 25%

Thromoboembolism

Septisemia (infection, especially after birth).

أسباب وفيات الأمهات في الأردن(2007-2008)
(الاسباب غير المباشرة)

%26.3	الاسباب غير المباشرة
%10.5	امراض القلب
%7.9	امراض الجهاز العصبي المركزي: الحوادث الوعائية الدماغية،الصرع
%5.2	(infectious diseases like hepatitis and malaria...الامراض السارية)
%1.3	chronic anemia فقر الدم المزمن
%1.3	renal failure الفشل الكلوي

المصدر:الدراسة الوطنية لوفيات الامهات في الاردن(2007-2008)،المجلس الاعلى

Key Facts WHO 2016

- Every day, approximately 830 women die from preventable causes related to pregnancy and childbirth (830 deaths due to direct preventable causes).
- 99% of all maternal deaths occur in developing countries.
- Maternal mortality is higher in women living in rural areas and among poorer communities (poverty is a high risk factor during pregnancy).

- 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% (we did not reach our goal to drop mortalities by three quarters but we were close to).
- 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

Maternal mortality in 1990-2015

WHO, UNICEF, UNFPA, World Bank Group, and United Nations Population Division
Maternal Mortality Estimation Inter-Agency Group

JORDAN

Year	Maternal mortality ratio (MMR)[a]	Maternal deaths	AIDS-related indirect maternal deaths	Live births[b]	Proportion of maternal deaths among deaths of female reproductive age (PM %)
	Per 100 000 live births (lb)	Numbers	Numbers	Thousands	
1990	110 [88-140]	130	0	119	13.0
1995	93 [80-109]	130	0	140	10.2
2000	77 [66-92]	110	0	149	8.5
2005	62 [53-72]	100	0	160	6.7
2010	59 [50-68]	110	0	185	5.8
2015	58 [44-75]	110	0	199	5.2

[a] MMR and PM are calculated for women 15-49 years.
[b] Live birth data are from World Population Prospects: the 2015 Revision. New York, Population Division, Department of Economic and Social Affairs, United Nations Secretariat; 2015.

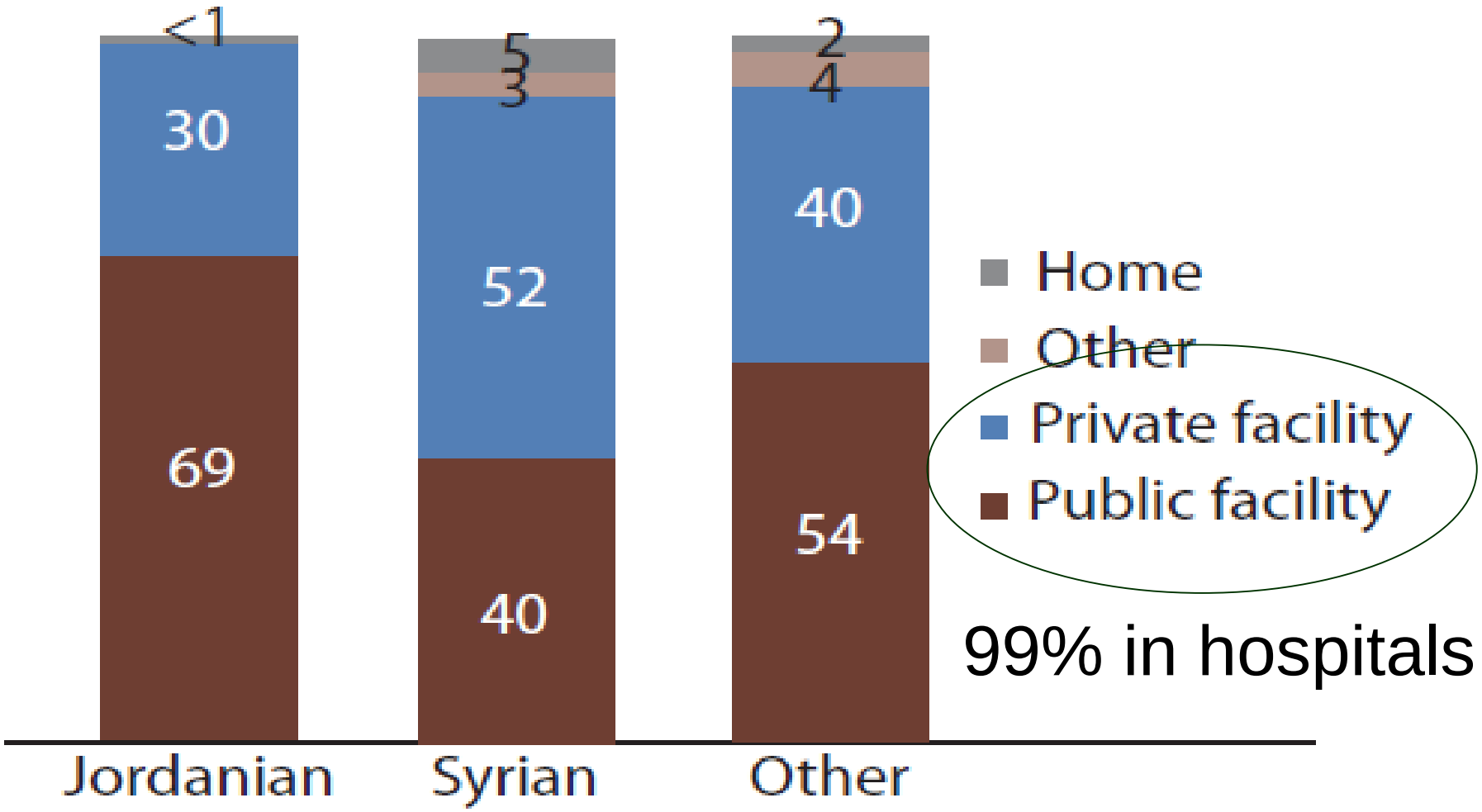
Annual Rate of Reduction	(%)
1990-2015	2.6 [1.2 - 4.1]
1990-2000	3.6 [1 - 6.1]
2000-2015	1.9 [0 - 3.9]
2005-2015	0.8 [-2.3 - 3.5]

Delivery

- 3W When (premature?, At time?, or Abortion?), Where (home or hospital) and Who (who is attending the labor? A traditional labor? Or a specialist is present? Family physician or an obstetrician?
- 3 c's
- • Clean hands
- • Clean delivery service
- • Clean cutting of the cord
- How :Normal or CS (should not be selectively chosen, only performed when medically necessary .

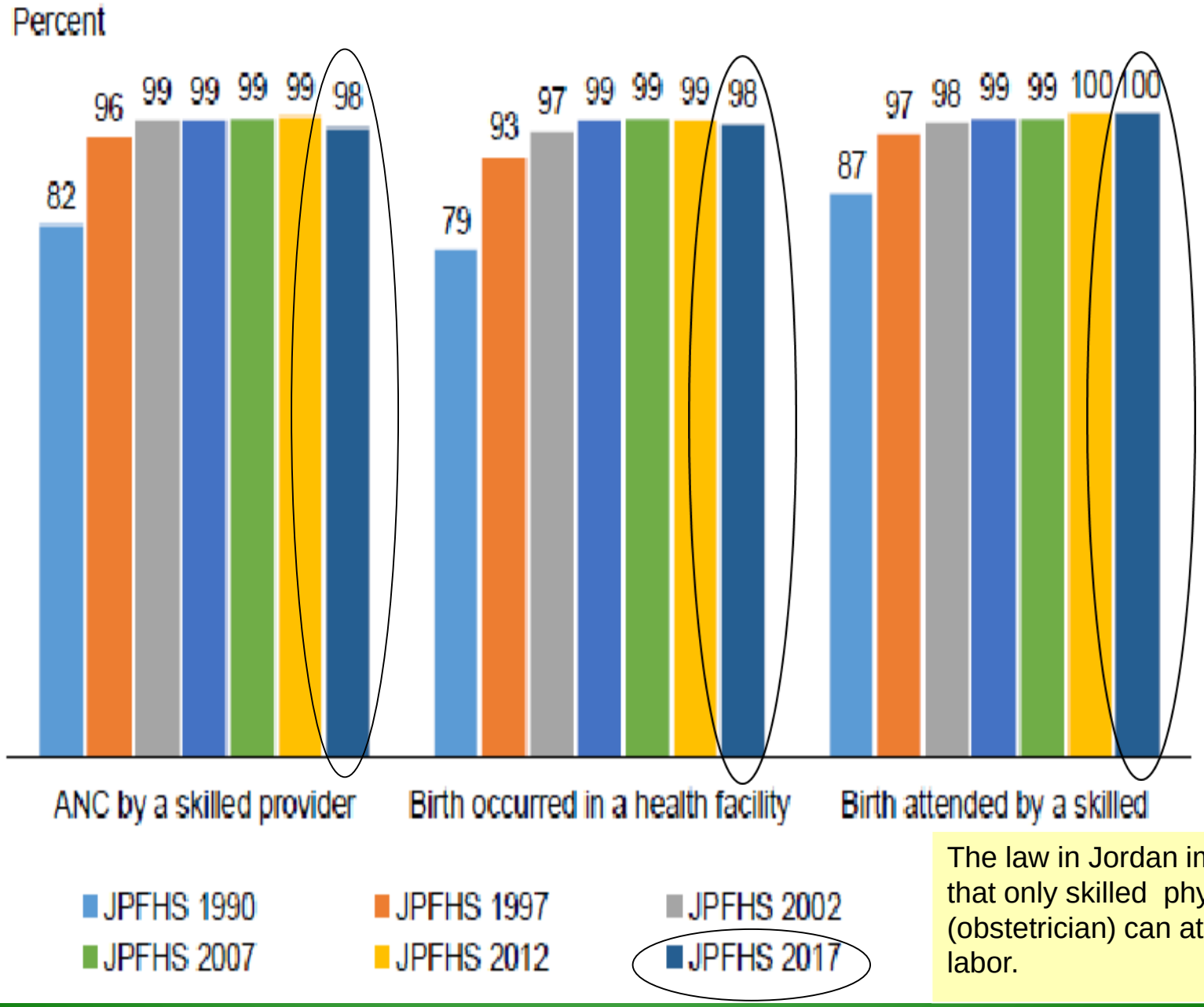
Place of Delivery by Nationality

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



99% in hospitals

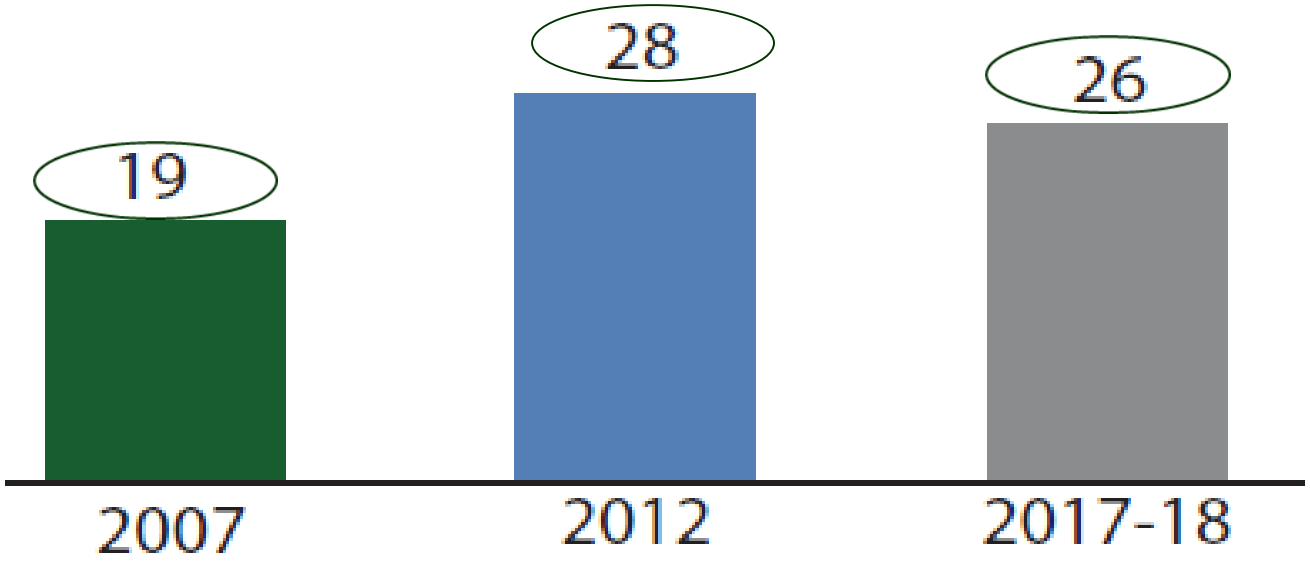
Figure 5 Trends in maternal health care, 1990-2017



The law in Jordan implies that only skilled physician (obstetrician) can attend the labor.

Trends in Caesarian Sections

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



Increased CS due to selective choosing

2017-18 Jordan Population and Family Health Survey

Post Natal

- • Observe physical status, postnatal care (6 weeks after birth).
- • Advise, and support on breast-feeding
- • Provide emotional and psychological support.
- • Health education on weaning and food preparation.
- • **Advise on Family Planning (to prevent pregnancy during breast feeding period).**

- 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