

# CHILD MARRIAGE / ADOLESCENT PREGNANCIES MATERNAL/NEONATAL OUTCOMES

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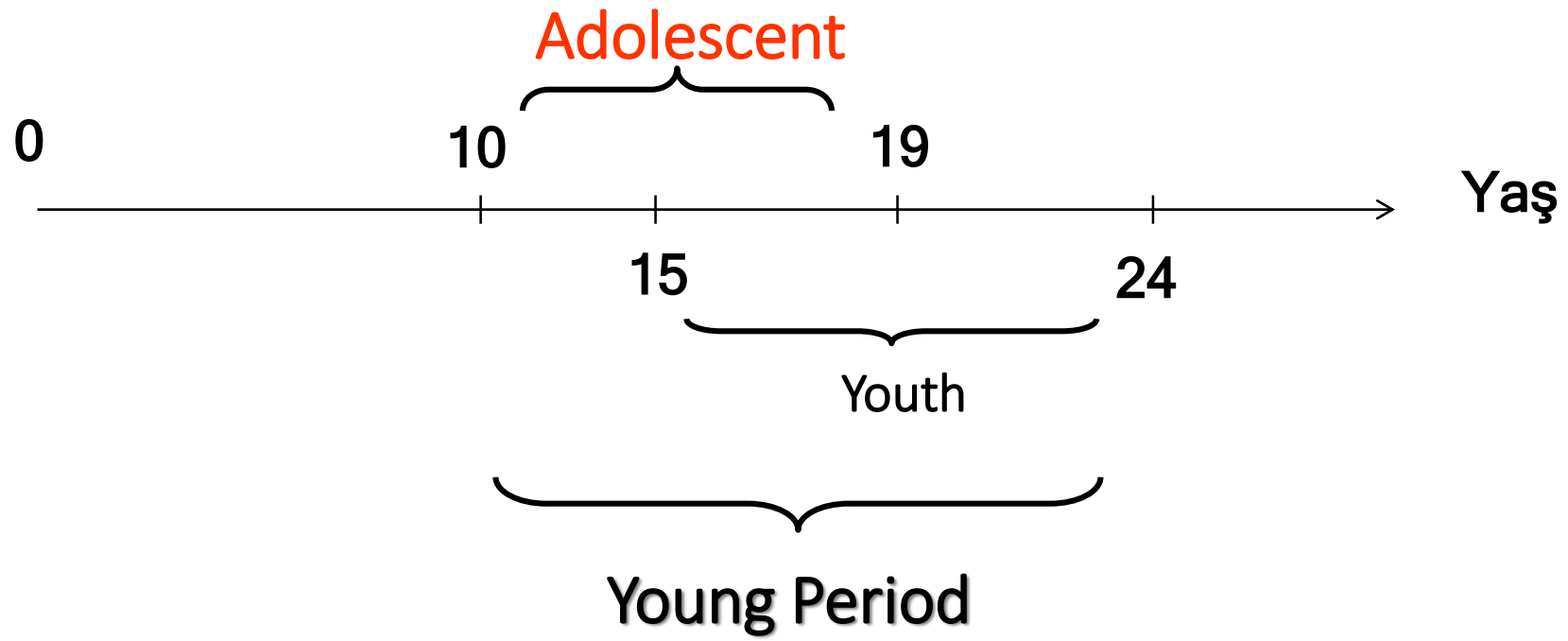
University of Celal Bayar

Manisa

- Formal marriage or informal union before age 18..
- The reality for both boys and girls are affected. The girls, most disproportionately affected.
- Lead to a lifetime disadvantage and deprivation

slide.... With the permission of Prof. Dr. Baloglu

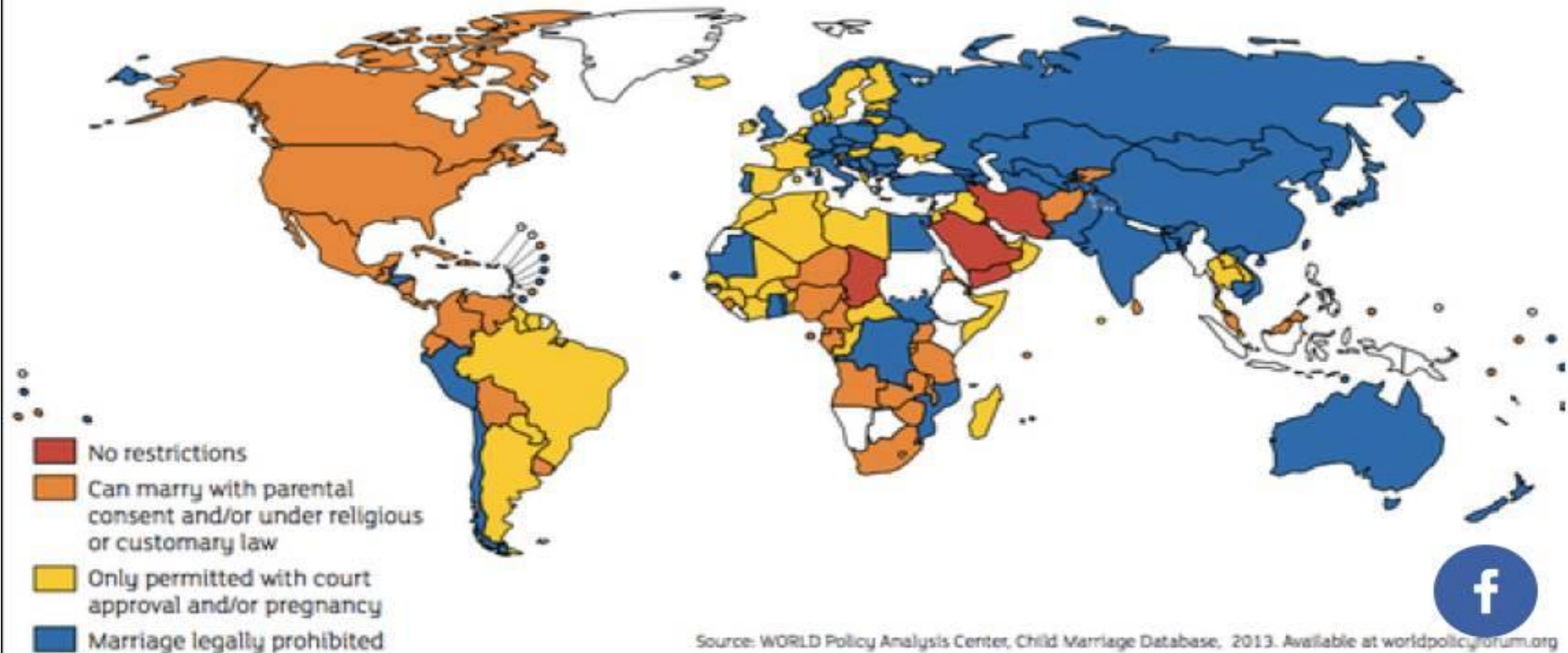






A girl who is 15 years of age.. Marriage???

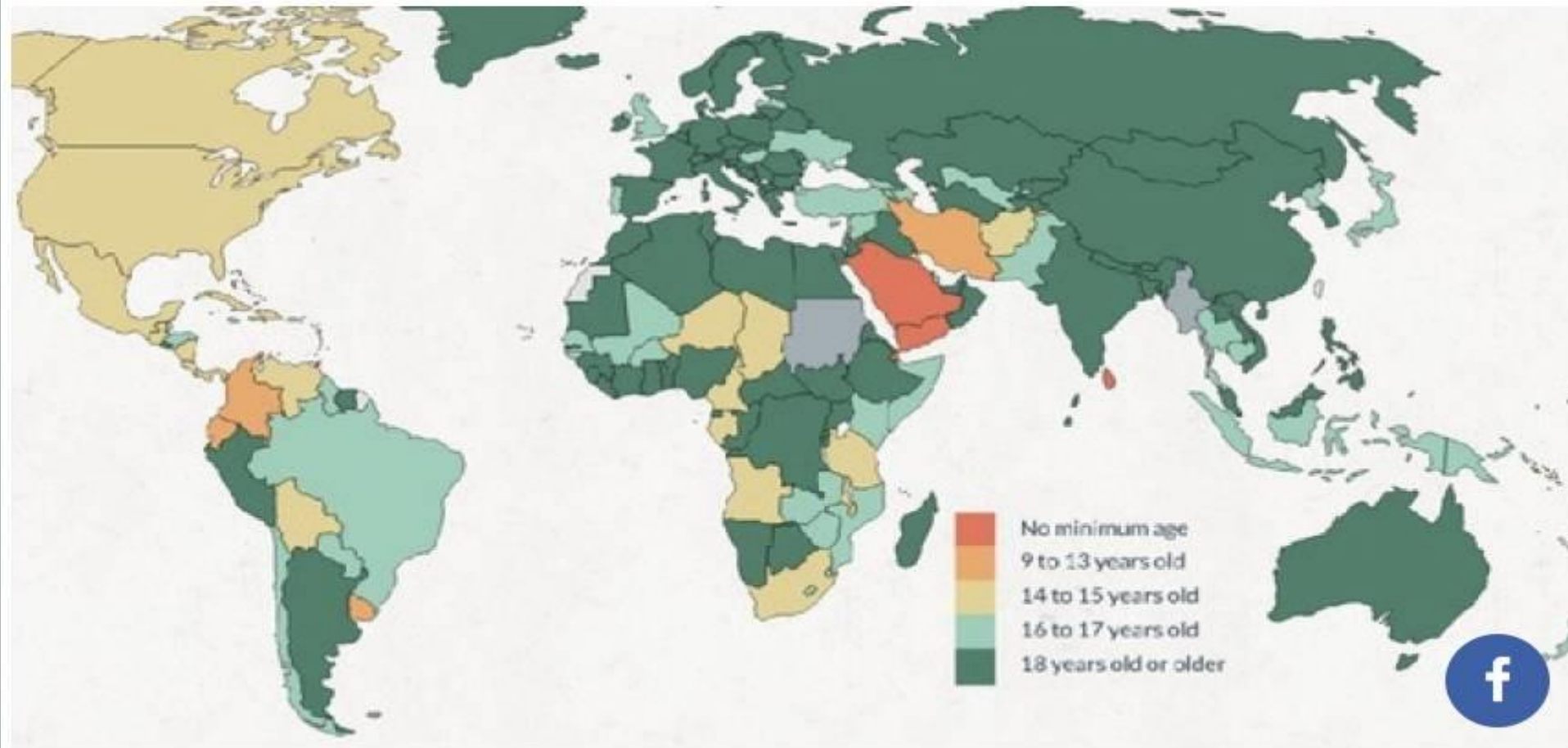
# Can a 15-Year-Old Girl Be Legally Married?



Source: WORLD Policy Analysis Center, Child Marriage Database, 2013. Available at [worldpolicyforum.org](http://worldpolicyforum.org)

Clinton Foundation

# Minimum Age of Marriage For Girls With Parental Consent



- Worldwide, more than 700 million women alive today were married as children.
- More than 1 in 3 – or some 250 million – were married before 15.
- Girls who marry before they turn 18 are less likely to remain in school and more likely to experience domestic violence.
- Young teenage girls are more likely to die due to complications in pregnancy and childbirth than women in their 20s; their infants are more likely to be stillborn or die in the first month of life

# Child marriage

39 000 / every day,

More than 140 million girls will marry between 2016 and 2022.

The average global birth rate among 15 to 19 years old is 49 per 1000 girls.

2014 World Health Statistics.

Country rates range from 1 to 299 births per 1000 girls, with the highest rates in sub-Saharan Africa.



Each year, more than half a million women die from causes related to pregnancy and childbirth,

Nearly 4 million newborns die within 28 days of birth. Millions more suffer from disability, disease, infection and injury

# Really important



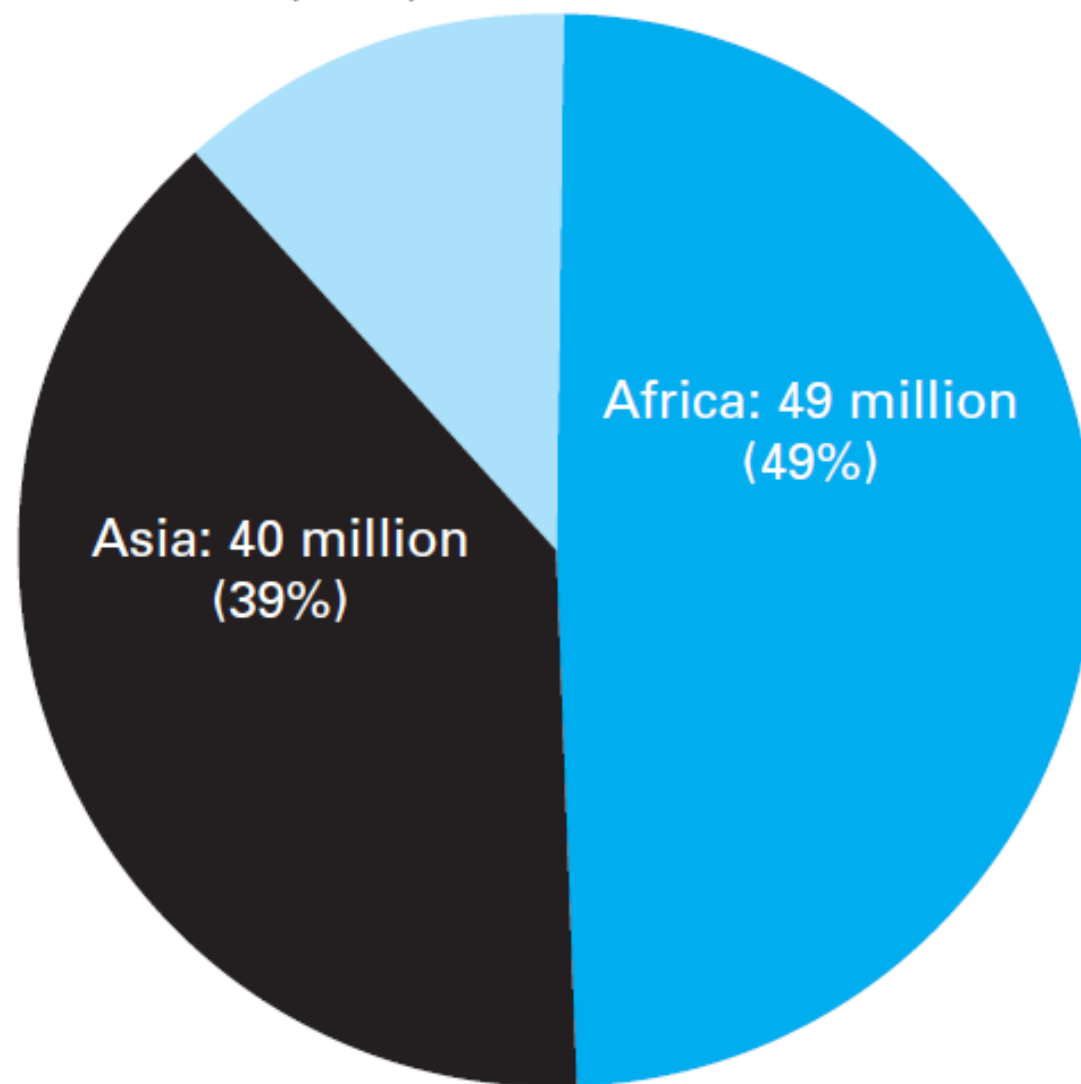
The most common cause of death for adolescent girls is pregnancy.

An emerging and global health problem of the World.

WHO 2015

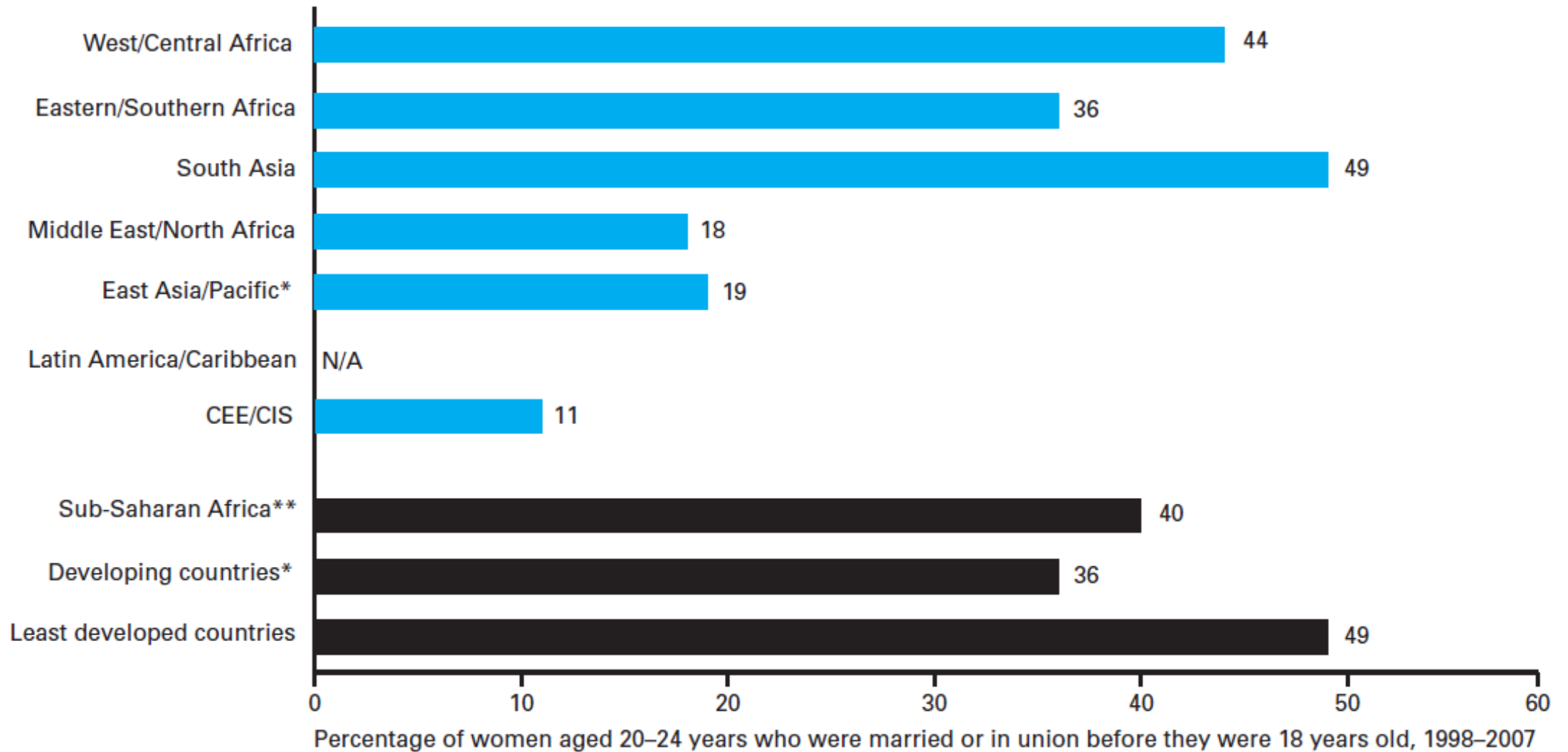
## Primary-school-age children out of school, 2007

Rest of the world:  
12 million (12%)



Source: UNICEF global databases.

## Child marriage is highly prevalent in South Asia and sub-Saharan Africa

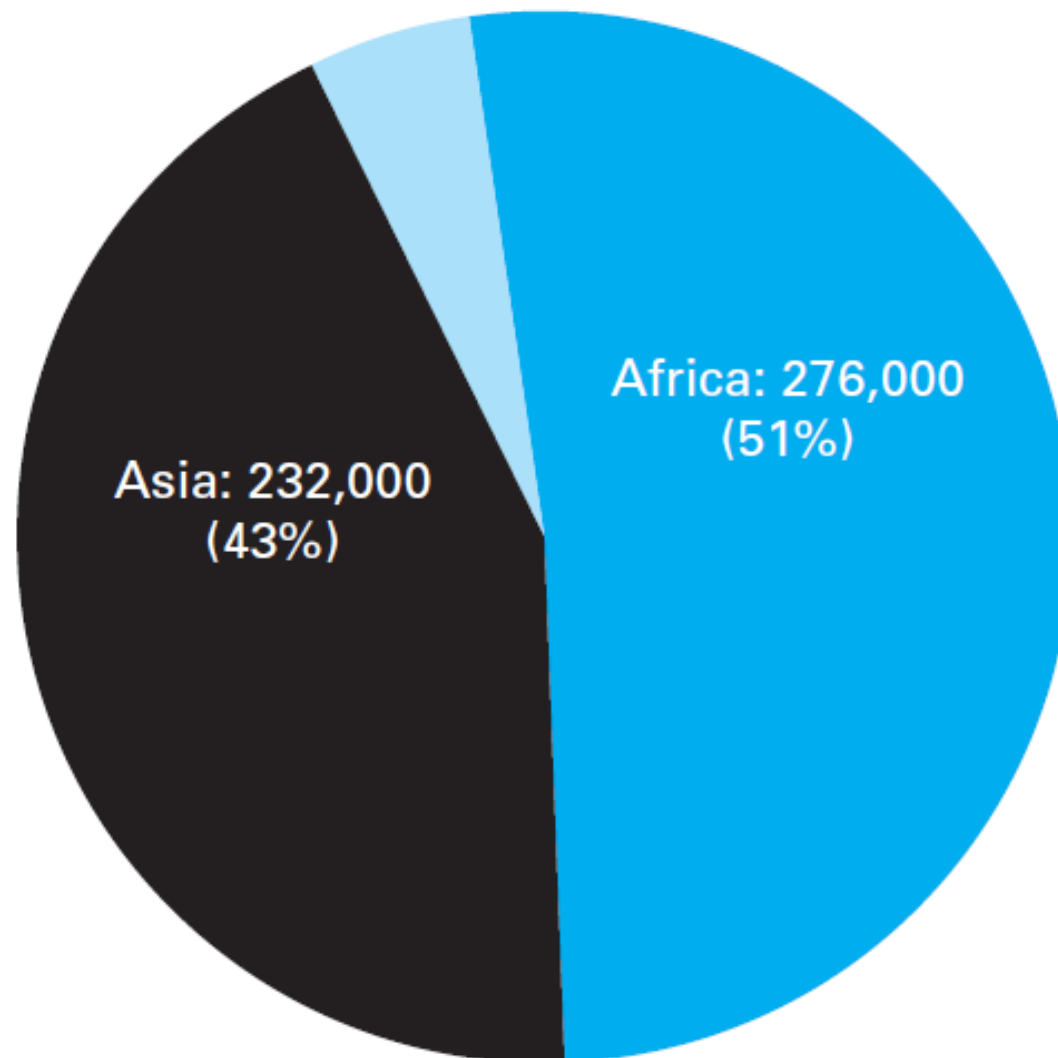


\* Excludes China. \*\* Sub-Saharan Africa comprises the regions of Eastern/Southern Africa and West/Central Africa.

Source: Demographic and Health Surveys, Multiple Indicator Cluster Surveys and other national surveys.

## Maternal deaths, 2005

Rest of the world:  
28,000 (5%)

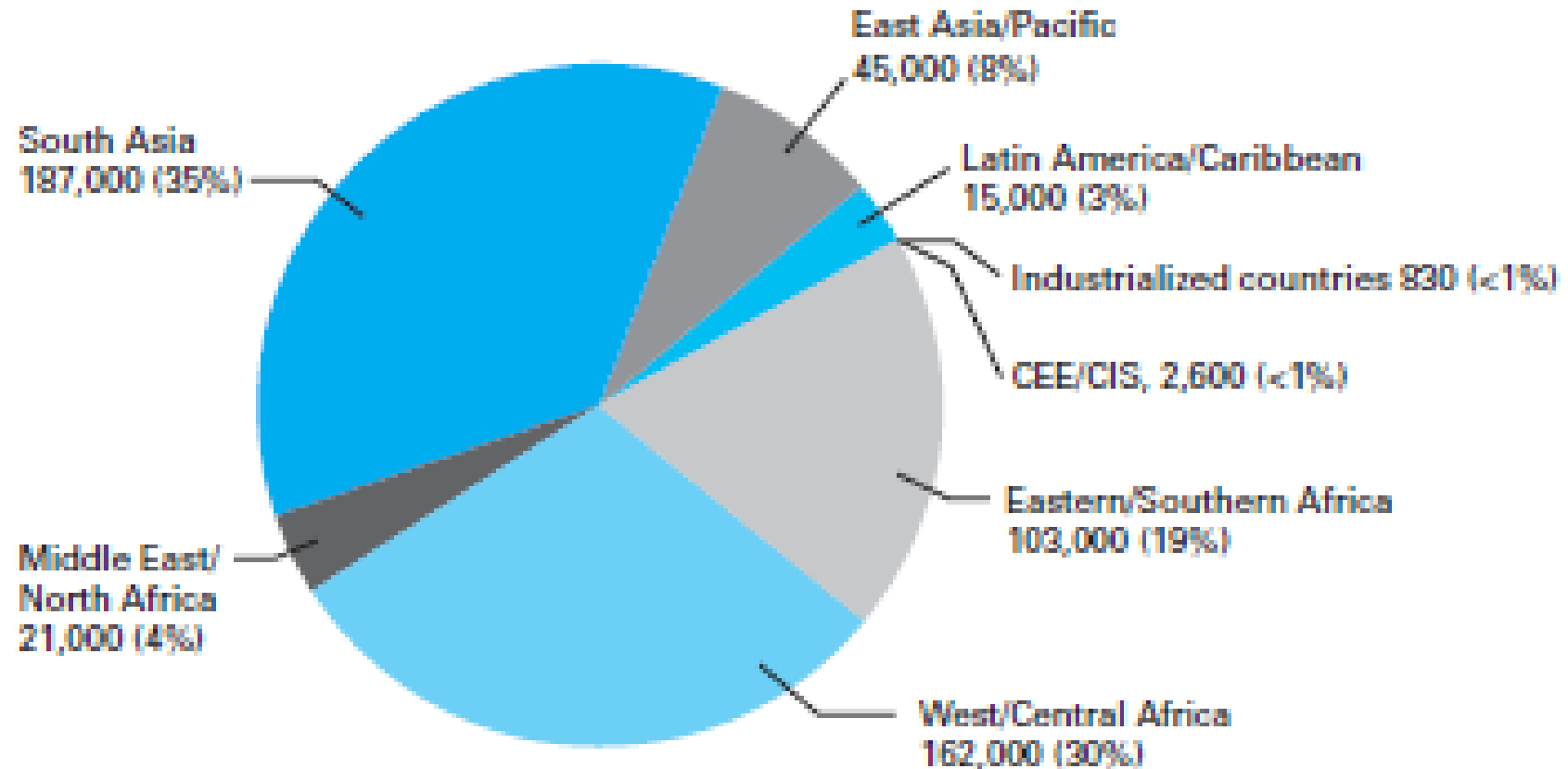


Source: UNICEF global databases.



# Regional distribution of maternal deaths\*

Maternal deaths, 2005



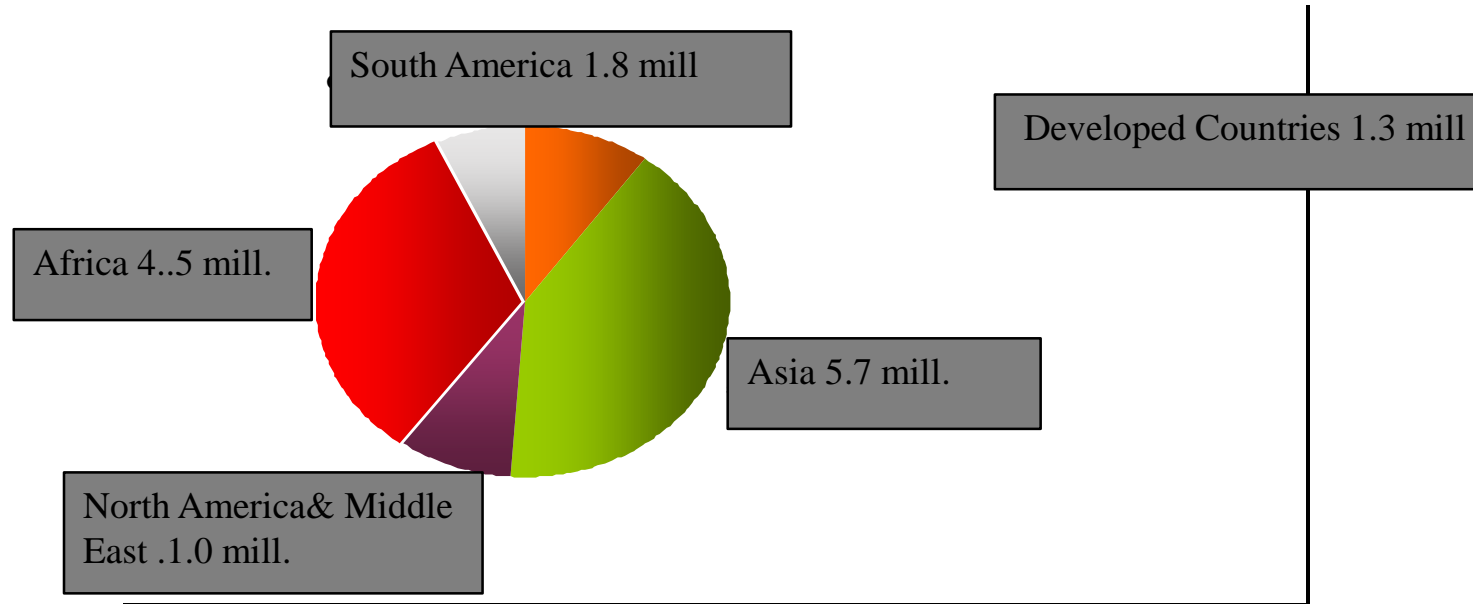
\* Percentages may not total 100% because of rounding.

Source: World Health Organization, United Nations Children's Fund, United Nations Population Fund and the World Bank, *Maternal Mortality in 2005: Estimates developed by WHO, UNICEF, UNFPA and the World Bank*, WHO, Geneva, 2007, p. 35.

# Adolescents/Teenager/Risks, Sexual and Reproductive Health Concerns

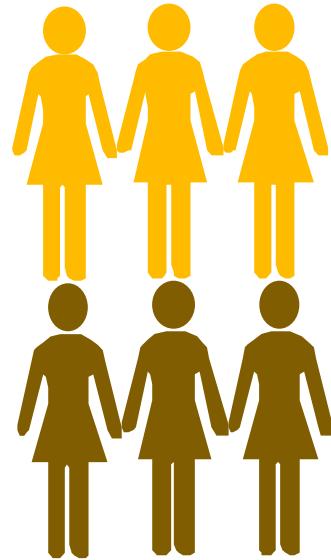
- The mother of the child born in the world in a year is about 14 million of adolescent age.
- 4 million of unsafe abortion occurring in every year belong to the adolescent age group (25%).
- About one in every 20 Adolescent suffer from STD besides HIV/AIDS .
- Half of the current HIV/AIDS cases are from the 10-24 years of age group.

# Adolescent teen girls deliver 14 million babies every year to the World.

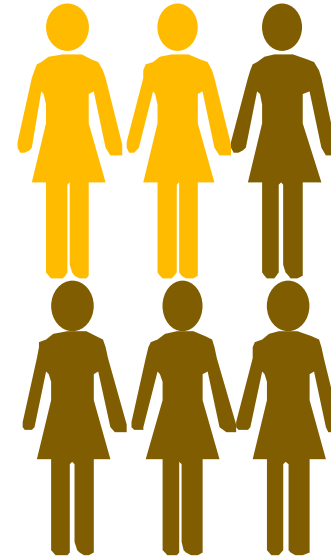


# The vast majority of births are the result of unwanted pregnancy (age under 20)

Sub-Saharan Africa  
3 of every 6 delivery

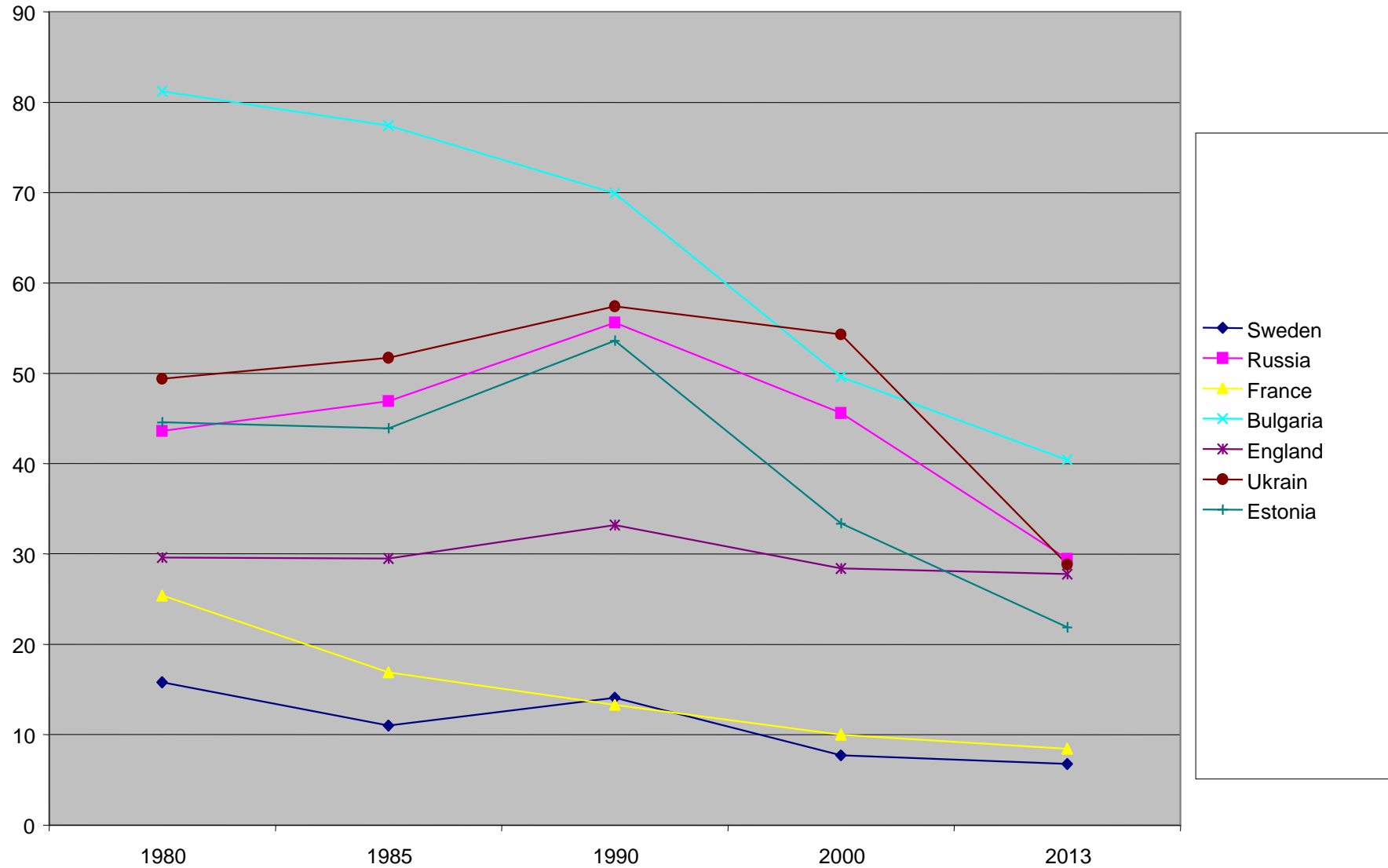


Latin America  
2 of every 6 delivery



Adapted from Population Reports, 2008.

# Adolescent pregnancy trends





## Adolescent birth rate in different regions

Region,Country	Birth Rate (‰)
World Mean Rate	45,4
1. Nijer	204,8
Lowest one North Korea	0,6
113.Turkey	30,9
European Mean Rate	15,0
Bulgaria	35,9
UK	25,8
Greece	11,9
USA	31,0

UNPFA(2013) Population Exp. Revision: 2012.

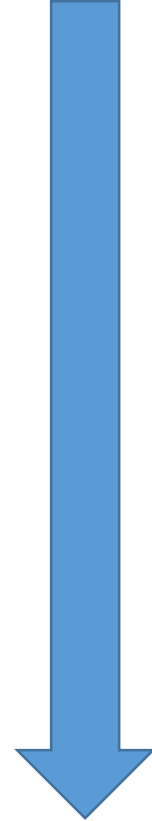
## Adolescent Birth Rate 2013.

Province	No of Delivery	15-19 year population	Adolescent Birth Rate (‰)
Turkey	91.114	3.098.038	29,4
Ağrı	2.165	29.975	72,2
Kars	936	14.651	63,9
Muş	1.418	23.471	60,4
Van	3.253	58.867	55,3
Niğde	805	15.617	51,5
Rize	153	13.528	11,3
Trabzon	345	31.963	10,8
Tunceli	35	2.652	13,2
Artvin	83	6.247	13,3
İstanbul	10.031	513.910	19,5
İzmir	3.075	139.012	22,1

## Adolescent Birth Rates yearly 2001-2014

Year	No of deliveries	15-19 years old population	Adolescent Birth Rate (‰)
2001	154.322	3.132.000	49,3
2002	135.104	3.099.000	43,6
2003	123.999	3.066.000	40,4
2004	123.834	3.051.000	40,6
2005	123.475	3.035.000	40,7
2006	121.572	3.019.000	40,3
2007	119.962	3.001.000	40,0
2008	118.759	2.985.000	39,8
2009	110.505	3.025.257	36,5
2010	101.220	3.047.707	33,2
2011	95.280	3.067.737	31,1
2012	91.114	3.098.038	29,4

TÜİK, 2014.



# Underlying causes

Low socioeconomic status and income

Rape

A lack of peer pressure

Low level of education

Partner suppressing

Weak family ties (Shattered families)

Losing sense of belonging

Living early and unprotected sex

Gender inequality

## Faced risks of Adolescents/Youngs

Pubertae / menarch

Sexuality

Sexual activity

Risk of pregnancy

Unexpected pregnancies

Planned abortion



Contraception

STD

Gender discrimination

Sexuel violance

Cigarette/alcohol/  
substance use



# Detrimental effects of early child marriage

Still births and newborn deaths are 50% higher among mothers under 20 than in women who get pregnant in their 20's.

In many poor countries, most young girls, regardless of age, are forced to demonstrate their fertility once they are married,

These children, because that's what they are, are discouraged from using contraceptives or might have to ask their husbands' permission, or they have no knowledge of or access to what they need.

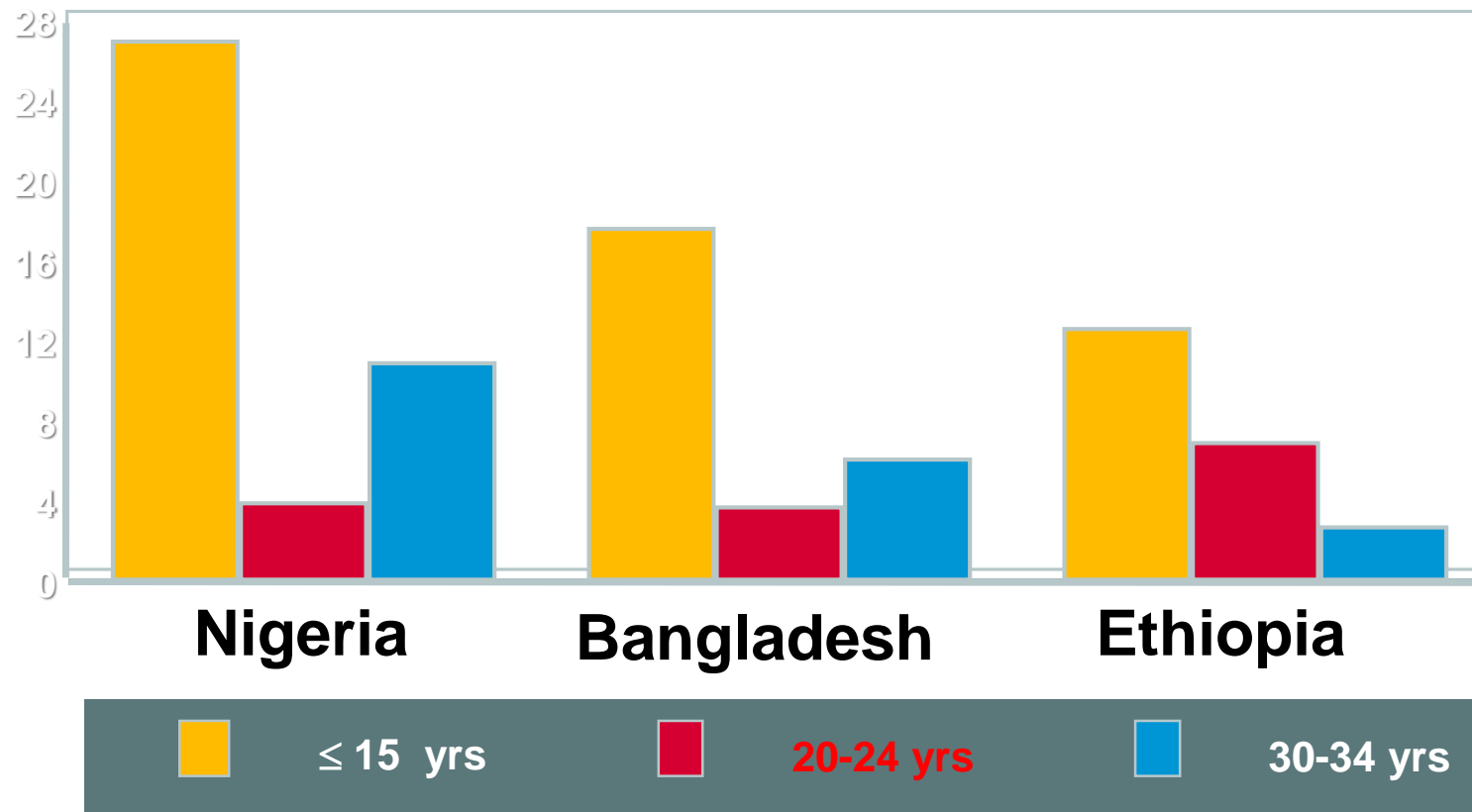
# Parents

Researchs during the past decade confirm the common belief that children of adolescent mothers do not fare as well as those of adult mothers.

These children have increased risks of developmental delay, academic difficulties, behavioral disorders, substance abuse, early sexual activity, depression, and becoming adolescent parents themselves.

## High rates of maternal mortality

Maternal mortality rate of 1000 live births



Studies in Family Planning, 1986; British Journal of Ob/Gyn, 2002.

# Medical risks of adolescent pregnancy

Under age 16:

Narrow pelvis



As a result:

Difficult and prolonged labor

Primigravida:

Hypertensive Disease



PPH and Eclampsia

# Adolescent Pregnancy ,Fetal and Maternal Results.

Baloğlu.A, et al.2012 .MKU Med.Jour.2013 -32.

- Pregnant women more than 20 weeks of gestation in our hospital between the dates of 01.01.2008-01.08.2012. Case Groups : 80 AP versus 102 Controls.
- Live, single pregnant women who gave birth under and over 19 years of age were examined during same period retrospectively.
- The demographic characteristics of the group (age, gravity, parity, is the married official with the spouse, relationship with spouse), obstetric outcomes (gestational age at birth, shape, birth weight, 1 and 5 minute Apgar scores, The presence of anemia) and obstetric complications (preterm birth, intrauterine development retardation, oligohydramnios, gestational diabetes, macrosomia, placental abnormalities, fetal distress) was comparable terms.
- Results for the statistical significance as the level of  $P < 0.05$  .



# Obstetric and neonatal outcomes of adolescent pregnancy

- **CONCLUSION: (n=341)** In our retrospective study, we found lower our complication rates in adolescent age group when compared with the adult age group, and other studies performed in adolescents. Since our hospital is a tertiary health care institute, and we monitorized our patients closely, our incidence rates can be better than those cited in the literature. As long as proper antenatal surveillance is employed, adolescent mothers do not seem to have increased risk for most of obstetric complications.

# Original Research - Qualitative Pregnant adolescent women's perceptions of depression and psychiatric services in the United States

Adolescent mothers do not often recognize the symptoms of depression and have limited experiences with psychiatric services. In order for adolescent women to engage in services practical and psychological barriers as well as the underlying causes of depression should be addressed.

- Children..... Unprotected/vulnerable..... Need love
- Young people..... Energetic..... Need responsibility
- Senior people.... Experienced.... Need respect

IF WE DO ALL WELL..... CAN CREAT A PLACE TURNING INTO HUMANISTIC

IT MIGHT BE CALLED PARADISE

- Our nation is determined to become a strong nation. This is one of the motivations for our women to rise in every regard. Because of this, our men and women of Science they will be teaching and go through all the steps will be the owner.
- Our religion has never demanded women to be lower than men. Commanded by God as well for men and women, Muslims must obtain enlightenments. Men and women seek science and wisdom, and wherever they could find they should go and furnished with.

Mustafa Kemal Atatürk

# Take Home Messages

Adolescent pregnancy is a global issue.

Decrease in the rate is gratifying for each year.

Early diagnosis and management is so important.

Effective contraception should be applied.

EDUCATION...

EDUCATION....

EDUCATION

Thank you



Tradition of child marriage

Migration and human rights barriers

Adolescent pregnancy is in the immediate vicinity of the marriage or extramarital adolescent pregnancy

Sexual violence

Contraception restriction

National policies

Appropriate sex education

Reproductive health units not being developed...

Maternal Outcomes According to Maternal Age

Outcome	Young Adults Aged 20-24.9 Years (Referent), n (%)	Younger Adolescents Aged 15.9 Years or Younger, n (%)	Adjusted OR (95% CI)	Older Adolescents Aged 16-19.9 Years, n (%)	Adjusted OR (95% CI)
Nonsurgical vaginal delivery	18,599 (67.30)	925 (77.8)	—	10,618 (72.2)	—
Surgical vaginal delivery*	2498 (9.04)	86 (7.23)	1.05 (0.84-1.33)	1038 (7.06)	0.99 (0.91-1.08)
Cesarean delivery*	6548 (23.69)	178 (14.97)	<b>0.49 (0.42-0.59)</b>	3047 (20.72)	<b>0.75 (0.71-0.79)</b>
Maternal anemia*	4035 (14.60)	231 (19.43)	<b>1.25 (1.07-1.45)</b>	2614 (17.78)	<b>1.15 (1.09-1.22)</b>
PPROM*†	618 (2.24)	35 (2.94)	0.85 (0.57-1.28)	397 (2.70)	0.93 (0.80-1.09)
Preterm delivery <37 weeks‡	2622 (9.48)	173 (14.55)	<b>1.36 (1.14-1.62)</b>	1779 (12.10)	<b>1.16 (1.08-1.25)</b>
Preterm delivery <34 weeks‡	784 (2.84)	54 (4.54)	1.25 (0.94-1.68)	561 (3.82)	1.13 (1.00-1.27)
Preterm delivery <28 weeks‡	159 (0.58)	8 (0.67)	0.78 (0.38-1.60)	107 (0.73)	0.94 (0.73-1.22)
Placental abruption*	262 (0.95)	12 (1.01)	0.97 (0.53-1.79)	148 (1.01)	1.02 (0.82-1.28)
Chorioamnionitis*	1324 (4.79)	49 (4.12)	<b>0.63 (0.47-0.84)</b>	727 (4.94)	<b>0.83 (0.75-0.91)</b>
Endometritis*	300 (1.09)	20 (1.68)	1.08 (0.68-1.72)	226 (1.54)	1.11 (0.92-1.33)
Postpartum hemorrhage*	898 (3.25)	55 (4.63)	<b>1.46 (1.10-1.95)</b>	524 (3.56)	1.10 (0.98-1.24)
Blood transfusion*	753 (4.58)	19 (2.71)	1.45 (0.89-2.35)	253 (3.07)	<b>1.21 (1.02-1.43)</b>
Preeclampsia or HELLP§	2065 (7.47)	115 (9.67)	<b>1.44 (1.17-1.77)</b>	1127 (7.67)	1.06 (0.98-1.16)
Eclampsia*	45 (0.16)	6 (0.50)	1.81 (0.75-4.37)	32 (0.22)	0.94 (0.59-1.51)
DVT or PE	57 (0.21)	4 (0.34)	1.38 (0.49-3.90)	23 (0.16)	0.64 (0.40-1.09)
Major perineal laceration (VD only)*	956 (4.53)	30 (2.97)	1.00 (0.68-1.46)	325 (2.79)	<b>0.82 (0.71-0.95)</b>
Maternal intensive care unit admission*	106 (0.50)	8 (0.80)	1.21 (0.55-2.66)	95 (0.81)	1.31 (0.96-1.78)
Maternal death*	1 (<0.01)	0 (0)	—	1 (0.01)	2.18 (0.13-35.74)

BMI, body mass index, calculated as weight (kg)/height (m<sup>2</sup>); CI, confidence interval; DVT, deep venous thrombosis; HELLP, hemolysis, elevated liver enzyme, and low platelet levels; OR, odds ratio; PE, pulmonary embolism; PPRM, preterm premature rupture of membrane; VD, vaginal delivery.

## Neonatal Outcomes According to Maternal Age

Outcome	Young Adults Aged 20-24.9 Years	Younger Adolescent Aged 15.9 Years or Younger	Adjusted OR (95% CI)*	Older Adolescents Aged 16-19.9 Years	Adjusted OR (95% CI)*
Low birth weight <sup>†</sup>	2074 (7.60)	131 (11.10)	0.82 (0.63-1.08)	1507 (10.34)	1.04 (0.94-1.15)
Very low birth weight <sup>‡</sup>	335 (1.23)	14 (1.19)	0.46 (0.18-1.16)	241 (1.65)	1.28 (0.92-1.78)
Birth trauma	722 (2.61)	33 (2.78)	1.10 (0.77-1.58)	422 (2.87)	1.08 (0.94-1.23)
Shoulder dystocia	374 (1.35)	13 (1.09)	0.76 (0.43-1.33)	237 (1.61)	1.07 (0.90-1.28)
Apgar score at 5 minutes <7	374 (1.36)	20 (1.70)	0.92 (0.57-1.50)	230 (1.57)	0.96 (0.80-1.15)
NICU admission	3104 (11.23)	144 (12.11)	<b>0.80 (0.65-0.98)</b>	1754 (11.93)	<b>0.89 (0.83-0.96)</b>
Median NICU length of stay (10th-90th percentiles), days	5.92 (1-34.77)	7 (1-39)	—	6 (1-38.86)	—
IVH or PVH	83 (0.30)	4 (0.34)	0.91 (0.29-2.91)	39 (0.27)	0.83 (0.53-1.30)
Asphyxia	46 (0.17)	2 (0.17)	1.06 (0.25-4.52)	26 (0.18)	1.09 (0.64-1.83)
Hypoxic-ischemic encephalopathy	1 (<0.01)	0 (0)	—	1 (0.01)	3.09 (0.13-71.61)
Respiratory distress syndrome	504 (1.82)	23 (1.93)	0.92 (0.54-1.58)	267 (1.82)	0.90 (0.73-1.09)
Neonatal sepsis	561 (2.03)	34 (2.86)	1.04 (0.72-1.52)	363 (2.47)	0.02 (0.88-1.18)
Meningitis	3 (0.01)	0 (0)	—	2 (0.01)	1.80 (0.24-13.29)
Pneumonia	154 (0.56)	9 (0.76)	1.17 (0.57-2.37)	64 (0.44)	0.73 (0.54-1.01)
Neonatal seizure	24 (0.09)	1 (0.08)	0.98 (0.13-7.53)	16 (0.11)	1.26 (0.64-2.50)
Perinatal death <sup>§</sup>	63 (0.23)	5 (0.42)	1.42 (0.50-1.30)	36 (0.24)	0.80 (0.50-1.30)

BMI, body mass index, calculated as weight (kg)/height (m<sup>2</sup>); CI, confidence interval; IVH, intraventricular hemorrhage; NICU, neonatal intensive care unit; OR, odds ratio; PVH, periventricular hemorrhage.

# Psychological and social consequences of pregnancy in unmarried Adolescent

The single mother and social stigma of the child

Lack of education,

Limited job and career opportunities

Heavy economic burden

Depression, insecurity of young women,

Children's psychological, social and economic aspects are more problematic..