Maternal mortality

Maternal Mortality

◆ *Increasing international attention -*

▪ 1990 World Summit for Children

▪ 1994 International Conference on Population and Development

▪ 1995 World Conference for Women

▪ 2000 – United Nations identified maternal mortality as the 5th of 8 indicators for Millennium Development Goals (MDGs)

  ◆ Target → reduce maternal mortality by *75%* between 1990 and 2015

◆ **SDG Agenda: 3.1**

  ⬡ **By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births**

Why We are Interested in Maternal Mortality

- General Indicator of reproductive wellbeing (e.g., proportion who survive pregnancy)
- Supplementary indicator of child wellbeing (orphanhood)
- Helps inform planning of national reproductive health programs
- Guides international attention and resources to where needs are greatest

Definition of maternal death

◆ In the ICD-10, WHO defines maternal death as:

◆ *The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management* **but not from accidental or incidental causes.**

Broader definition of maternal death

- In addition, broader definitions of maternal death, also covered in ICD-10 coding, sometimes include:

- Pregnancy-related death - The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death.

- Late maternal death - The death of a woman from direct or indirect obstetric causes, more than 42 days but less than one year after termination of pregnancy.
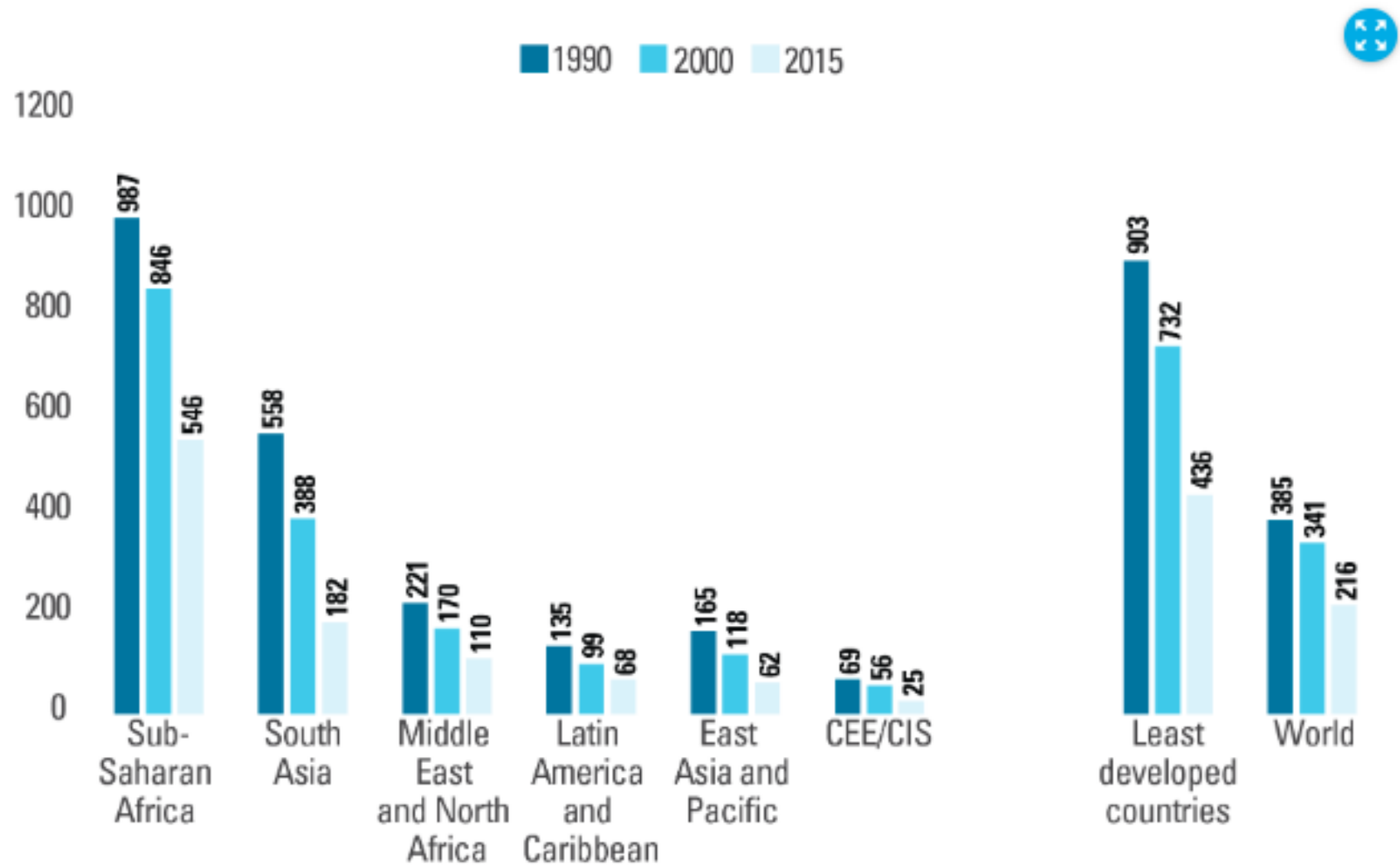
Indicators

- **Maternal mortality ratio (MRR) - Number of maternal deaths during a given time period per 100 000 <u>live births</u> during the same time-period.**

- **Maternal mortality rate -** Number of maternal deaths in a given period per 100 000 <u>women of reproductive age</u> during the same time-period.

- **Adult lifetime risk of maternal death -** The probability of dying from a maternal cause during a woman's reproductive lifespan.

Difficulty in detecting maternal death

1. Recording of deaths that occur
2. Determining if a death is truly a maternal death
    - Did somebody know if she was pregnant?
    - Ambiguous definitions of "indirect" – do all doctors and professionals agree?
3. Determining if death was truly within the past year
4. Sample size – large number of births need to be covered, given rarity of maternal deaths
5. Estimates may differ depending on method used

Maternal mortality fell by almost half between 1990 and 2015

Legend: 1990, 2000, 2015

Region	1990	2000	2015
Sub-Saharan Africa	987	846	546
South Asia	558	388	182
Middle East and North Africa	221	170	110
Latin America and Caribbean	135	99	68
East Asia and Pacific	165	118	62
CEE/CIS	69	56	25
Least developed countries	903	732	436
World	385	341	216

*CEE/CIS: Central and Eastern Europe and the Commonwealth of Independent States

Source: World Health Organization, UNICEF, United Nations Population Fund and The World Bank, *Trends in Maternal Mortality: 1990 to 2015*, WHO, Geneva, 2015.

Maternal mortality ratio

$$\frac{\text{Number of maternal deaths during a given time period}}{\text{\# live births during the same time-period.}}$$
x 100,000

Assume Utopia had 285,000 live births. What is the MMR?