WHO definition of maternal death

• The death of a woman while pregnant or within 42 days of the end of pregnancy from any cause related to or aggravated by the pregnancy or its management (NOT from accidental or incidental causes)

• LATE maternal death is death of a women from direct or indirect obstetric causes more than 42 days but less than one year after the end of a pregnancy.

WHO. 2010
Global causes of maternal mortality

- Hemorrhage: 24.8%
- Infection: 14.9%
- Eclampsia: 12.9%
- Obstructed Labor: 6.9%
- Unsafe Abortion: 12.9%
- Other Direct Causes: 7.9%
- Indirect Causes: 19.8%

WHO. 2008.
Direct obstetric death

Death resulting from:

- Obstetric complications of pregnancy, birth or postpartum
- Interventions, omissions, and/or incorrect treatment for complications of pregnancy
Common causes of direct obstetric death

• Hemorrhage
• Infection
• Pre-eclampsia/eclampsia
• Obstructed labor
• Unsafe abortion
• Complications of anesthesia or surgery related to pregnancy
Indirect obstetric death

Death of a pregnant woman or woman within 42 days of termination of pregnancy resulting from:

• pre-existing disease or
• disease/injury exacerbated by pregnancy
Common causes of indirect obstetric death

• Exacerbation of cardiac or renal disease
• Severe anemia
• Tuberculosis
• Violence related to pregnancy state
  – domestic violence, homicide, suicide
• HIV disease
  – with the new international classification of diseases (ICD, 10th edition), HIV related illness exacerbated by pregnancy and resulting in death is counted as an indirect maternal mortality
Measurements of maternal mortality

• Maternal Mortality Ratio:
  – The number of maternal deaths per 100,000 live births in the same time period

• Maternal Mortality Rate:
  – The number of maternal deaths per 100,000 women of reproductive age in the same time period

• Lifetime Risk of Maternal Death:
  – The probability of a woman dying from a maternal cause during the course of her lifetime (includes risk of death x # of pregnancies)
Global maternal mortality update

• Since 1990, there has been overall a 34% decline in global maternal mortality – now estimated at 358,000 maternal deaths per year (down from 530,000)

• Countries in sub-Saharan Africa and South Asia account for 87% of these deaths (313,000)

Published by WHO 2010.
• 147 countries experienced SOME decline in MMR from 1990-2008

• 23 countries had an increase in MMR. Most of these are in sub-Saharan Africa (in addition to Afghanistan, Laos, Bangladesh, Haiti, and Cambodia)
Eleven countries account for 65% of maternal deaths

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Ethiopia

- On average, 3 million women in Ethiopia are pregnant each year and 2 million give birth.
- 42% of pregnancies are unintended and more than half a million pregnancies are terminated.
- More than 25,000 mothers die related to pregnancy each year and up to 500,000 may have short term and/or long term disabilities.

FMOH Safe Motherhood Programme, Ethiopia. 2010.
Ethiopia

• Overall, 53% DECLINE in maternal deaths since 1990 and annual decline of 4.2%

• Maternal mortality ratio of:
  – 673/100,000 live births (Ethiopia DHS, 2005)
  – 470/100,000 live births (WHO, 2008)

• Lifetime risk of maternal death 1:40

• MDG 5 target for 2015 of further reduction to 267/100,000 live births

Published by WHO 2010.
Ethiopia

• Only 15% of women delivered at a health facility (85% home deliveries)

• Approximately 10% of deliveries are attended by health extension workers (HEW)
Global maternal morbidity

• For every ONE maternal death, 40-60 women experience an illness or injury related to pregnancy

• Important causes of maternal morbidity:
  – obstetric fistula and other birth related trauma
  – severe anemia
  – infertility
  – pelvic pain
Preventing maternal mortality and morbidity

- Many maternal deaths cannot be prevented or predicted
- Eighty percent of maternal deaths occur around labor, delivery, and first 24-48 hours postpartum
- Whether or not a woman dies or suffers morbidity depends on her seeking and receiving access to timely and competent emergency obstetric care
- Without the ability to diagnose and treat obstetric complications, maternal lives cannot be saved
WHY Do Women Die? The Three Delay Model

1. Delay in decision to seek care
2. Delay in reaching care
3. Delay in receiving care
WHY Do Women Die? The Three Delay Model

1. Delay in decision to seek care
   - Lack of education and understanding of symptoms, warning signs of problems in pregnancy
   - Cultural acceptance of risk of death during childbirth
   - Low status of women
   - Socio-cultural barriers to seeking care – lack of control of household decision making and access to family finances, gender bias, poverty
WHY Do Women Die? The Three Delay Model

2. Delay in reaching care
   - Geographic barriers
   - Lack of available/appropriate transport and finances

3. Delay in receiving care
   - Lack of equipped health care facilities to meet needs of the population
   - Limited supplies and trained personnel at health facilities
   - Poor quality of care or discrimination in provision of care
   - Disruption in health care services due to civil unrest, politics and other wider social factors
Strategies to address delays

- Empowering and educating women and their families
- Strengthening outreach and community-based care
- Developing community supported transport and emergency finances
- Building infrastructure closer to homes of women with limited resources (rural and underserved areas)
- Developing effective referral systems
- Improving quality and availability of emergency obstetric care
- Promoting commitment to affordable high quality maternal health services for all women
- Strengthening monitoring and evaluation information for continual improvement of health care services and workers