CHAPTER 2

Definitions
DEFINITIONS

The World Health Organization (WHO) reviews the International Classification of Diseases and its definitions on a regular basis. The version in use during the study period was the Tenth Revision (ICD-10).

ICD-10 DEFINITIONS

According to the ICD-10, maternal mortality is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. The woman could have died before delivery, or within the previous 6 weeks have had a pregnancy that ended in a live or stillbirth, an abortion (either spontaneous or induced) or an ectopic pregnancy. The gestational duration makes no difference.

Pregnancy related death is a more broad concept and defined as the death of a woman while pregnant or within 42 days of termination of pregnancy irrespective of the cause of death and irrespective of the duration and the site of the pregnancy. This includes accidental or incidental causes. This definition lowers the risk of misclassification with differences in the MMR and underlying groups when used instead of direct/indirect death. This definition also has been used in the report of the United Kingdom because also accidental or incidental causes can contain valuable lessons.

It may be more accurate to measure reproductive mortality in a country. The reproductive mortality rate is the number of reproductive deaths divided by the number of women of reproductive-age, in the same period and area. It measures a woman’s risk of dying from her fertility, which is maternal mortality and the number of women dying using contraceptive methods (Beral, 1979).
Causes of maternal mortality are further classified in groups.

**Definitions**

Direct maternal deaths are deaths from conditions or complications or their management which are unique to pregnancy, occurring during the antenatal, intrapartum or postpartum period. Examples are pre-eclampsia, ectopic pregnancy, obstetric sepsis and obstetric haemorrhage. Indirect maternal deaths are those resulting from previously existing disease or disease that develops during pregnancy, not due to direct obstetric causes, but which are aggravated by physiologic effects of pregnancy. Examples are diabetes, cardiac diseases, hormone dependent malignancies and epilepsy. The third group is fortuitous maternal mortality. These cases could have occurred even if the woman had not been pregnant. In the UK these cases are called coincidental deaths and in the American literature non-maternal or non-obstetric deaths.

The ICD-10 introduced late maternal deaths, defined as the death of a woman from direct or indirect causes more than 42 days but less than 1 year after the end of pregnancy. This enables lessons to be learned from those deaths in which a woman had problems that began with her pregnancy, even if she survived for more than 42 days after its termination.

**MATERNAL MORTALITY RATIO**

The *Maternal Mortality Ratio* (MMR) is internationally defined as the number of direct and indirect deaths per 100,000 live births. Fortuitous deaths and late deaths are excluded from this calculation.
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It is more accurate to use pregnancies or maternities as denominator instead of live births. But it is impossible to know the exact number of pregnancies, since not all pregnancies result in a registered live or still birth. The UK uses maternities and defines this as the number of pregnancies that result in a live birth at any gestation or stillbirths occurring at or after 24 weeks’ completed gestation, and are required to be notified by law. This enables a more detailed picture of maternal death ratios, but for most countries it is not possible to calculate the number of maternities. It can thus not be used for international comparisons. For this reason we decided to use live births as denominator.

CAUSE AND MODE OF DEATH

The ICD-10 classifies cause of death as the disease, morbid condition or injury which either resulted in or contributed to death and the circumstances of the accident or violence which produced any such injuries. The underlying cause of death is the disease or injury which initiated the chain of events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury. The mode of death is defined as the disease or injury that ended life directly.

SUBSTANDARD CARE

Substandard care comprises all those care factors which had a negative influence on the chain of events leading directly to maternal death. It takes into account all failures in clinical care as well as some of the underlying factors which may have resulted in low standards of care for a particular patient. It could be assigned to all persons involved in the care of pregnant women and to the pregnant woman herself. This concept includes factors like patient’s or doctor’s delay, administrative failures, shortage of back-up facilities such as anaesthetic, radiological, pathology and bloodbanking services etc. Avoidance of such factors does not necessarily mean that death would have been prevented, however. Because consensus does not always exist about what constitutes good standards of clinical care, the concept of substandard care can provoke considerable discussion and argument. The standard of care was the care as stated in national guidelines.
and should be determined for different clinical situations and for different levels of health care. If there was no (appropriate) guideline, the best available evidence was used. The anonymised cases were individually assessed for substandard care factors by the members of the MMC. All cases were further discussed at a group meeting for a final decision on classification and substandard care factors. When consensus could not be reached, the decision was based on the assessment of the majority of the group.