WHO maternal death and near-miss classifications

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Reducing maternal mortality is the Millennium Development Goal 5. To reach this goal, countries need an accurate picture of the causes and levels of maternal deaths. Recent systematic reviews have shown that there are many inconsistencies in the way maternal deaths are classified and there is a lack of standard definitions and criteria for identifying severe maternal morbidity and near-miss cases.[1,2]

WHO established a technical working group of obstetricians, midwives, epidemiologists and public health professionals from developing and developed countries to develop a maternal death classification system.

The group established three principles for its work. First, the classification must be practical and understood by its users (clinicians, epidemiologists and programme managers), Second, underlying causes must be exclusive of all other conditions; as in the *International Statistical Classification of Diseases and Related Health Problems* (ICD), the underlying cause is the disease or injury which initiated the sequence of events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury. Third, the new classification system should be compatible with and contribute to the 11th revision of the ICD. Incorporating this maternal death classification into the ICD will encourage consistent use in both death certificates and confidential enquiries into maternal deaths, and improve the comparability of data.

The proposed maternal death classification system was sent to more than 40 individual reviewers and the International Federation of Gynecology and Obstetrics, the United Nations Children's Fund (UNICEF), the United Nations Population Fund (UNFPA) and national professional organizations including the Royal College of Obstetricians and Gynaecologists, the American College of Obstetricians and Gynecologists and the Canadian College of Obstetricians and Gynaecologists. Revised after this feedback, the second version was tested on eight databases of maternal deaths: national databases from Colombia, Jamaica and South Africa, other databases from Kenya, Malawi and Zimbabwe and verbal autopsy data from Afghanistan and Nigeria. All sites found the classification workable and useful.

The new WHO classification of cause of maternal death has a simple structure to facilitate tabulation: group, disease category and individual underlying causes. The group includes three categories: direct maternal deaths, indirect maternal deaths and "unanticipated complications of management". This addition makes it possible to track trends in iatrogenic disease as, for example, related to caesarean sections. Underlying causes are clearly separated from conditions contributing to fatal outcomes. Finally, the working group decided to classify suicide in pregnancy, deaths from puerperal psychosis and postpartum depression in the category of direct maternal deaths.[3]

The working group also reached consensus on how to define maternal near miss – "a woman who nearly died but survived a complication that occurred during pregnancy, childbirth or within 42 days of termination of pregnancy".[4] Signs of organ dysfunction that follow life-threatening conditions are used to identify maternal near misses so that the same classification of underlying causes is used for both maternal deaths and near misses. This consistency and a set of near-miss indicators enables assessments of the quality of care provided to pregnant women.

The WHO technical working group recommends that the new maternal death classification system be adopted by all countries and the maternal near-miss approach be considered in national plans for improving maternal health. By using the same classifications, reliable comparisons can be made within and between countries and regions. Applying this classification should help to identify the health system shortfalls that countries need to address in order to reduce complications and fatal outcomes of pregnancy and childbirth. ■

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Available at: http://www.who.int/bulletin/volumes/87/10/09-071001/en/index.html

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