



Indirect causes of maternal death

Comprehensive analyses of the causes of maternal mortality have been published by WHO¹ and the Institute for Health Metrics and Evaluation.² These analyses strikingly show the increasing importance of indirect causes of maternal death. Say and colleagues¹ noted that 27.5% of all maternal deaths result from these indirect causes, with the highest proportion of such deaths in south Asia and sub-Saharan Africa. Kassebaum and colleagues² similarly show the growing direct and indirect effects of non-communicable diseases on maternal mortality. The authors conclude that indirect causes of maternal deaths cannot be ignored and that efforts should be focused on their reduction.

The greater relative importance of indirect causes could be a result of successful addressing of direct complications of pregnancy and childbirth, and of a change in risk factors and disease patterns.^{1,2} Indirect causes of death include the effects of pre-existing disorders, such as HIV infection, mental disease, and diabetes, when aggravated by pregnancy. Unfortunately, this range of indirect causes is yet to be fully explored. Prompt action to thoroughly understand these causes of death and develop appropriate responses is crucial to continue worldwide progress in maternal mortality reduction.

Despite the importance of these indirect causes, key policy and strategy documents of leading international maternal health non-governmental organisations and UN organisations do not focus much on indirect causes³⁻⁷ of maternal

mortality, except for HIV infection. Predominant attention is still given to direct causes of adverse pregnancy outcomes. In particular, poor mental health as an underlying causal factor for maternal mortality and morbidity has been ignored and remains outside the stated agenda of these organisations. This omission is despite the fact that many studies^{8,9} have shown that poor maternal mental health has far-reaching adverse effects on mother and infant. Furthermore, suicide, as the most severe effect of poor mental health, is a leading contributor to maternal mortality worldwide and is strongly associated with violence and abuse.⁸

The situation might be helped by the WHO guidelines¹⁰ on recording of maternal mortality cause: the International Classification of Disease—Maternal Mortality. These guidelines now deem suicides during pregnancy and 12 months postpartum as direct maternal deaths, even if underlying obstetric psychiatric disorders are not diagnosed. This revision provides hope for improved future data on suicide as a cause of maternal death and provides reason for organisations to add mental health to their agenda. Implementation of several internationally ratified human rights conventions that require governments to take action to address maternal mental health as part of health services could improve the situation somewhat. Maternal mental health is essential to safe motherhood. The worldwide maternal health community should update their agendas to ensure programme effectiveness by giving attention to indirect causes of maternal death, including mental health.

We declare no competing interests.

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*Frederikke Storm, Suneth Agampodi, Michael Eddleston, Jane Brandt Sørensen, Flemming Konradsen, Thilde Rheinländer
frederikke@sund.ku.dk

Department of International Health, Immunology and Microbiology, University of Copenhagen, Øster Farimagsgade 5, 1353 Copenhagen K, Denmark (FS, JBS, FK, TR); Maternal and Child Health Unit, Department of Community Medicine, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka, Saliyapura, Anuradhapura, Sri Lanka (SA); and Pharmacology, Toxicology, and Therapeutics, University of Edinburgh, Edinburgh, UK (ME)

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