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KNOWLEDGE SUMMARY: WOMEN'S & CHILDREN'S HEALTH

2013

The Partnership for Maternal, Newborn & Child Health

DEATH REVIEWS: MATERNAL, PERINATAL AND CHILD

Many maternal, perinatal and child deaths are preventable and progress towards Millennium Development Goals 4&5, to reduce child mortality and improve maternal health, has been insufficient in many parts of the world. Well-implemented death reviews provide opportunities to examine the circumstances surrounding a woman's or child's death, and improve the delivery of health services to prevent such deaths in the future. Several types of review processes exist to evaluate deaths in diverse settings, given different data availability and levels of service delivery. Both consistent surveillance and effective response are needed to ensure that maternal, perinatal and child deaths are identified and reviewed, so that recommendations can be made, and action can be taken to prevent further deaths.

UCL · World Health Organization · Universiteit van Pretoria University of Pretoria Yunibesithi ya Pretoria · University of Aberdeen · Immpact · London School of Hygiene & Tropical Medicine · MARCH Maternal, Reproductive & Child Health · IDEAS Evidence to improve maternal & newborn health · Maternal Health Task Force · World Vision International · Family Care International

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The majority of maternal, perinatal and child deaths occurring in low- and middle-income countries could be prevented through well established and cost-effective interventions delivered through a functioning health system. Death reviews provide opportunities to examine the circumstances surrounding, as well as the immediate and contributing causes leading to a mother's or child's death, and inform the delivery of health services to prevent such deaths in the future. The aim of death reviews is to take action at multiple levels to improve access to services and quality of health care for women and children during pregnancy and delivery, and ultimately to prevent future morbidity and mortality. At the national level, a death review process actively seeks to capture deaths and ensure lessons learned feed into actions at multiple levels, from communities to policies.[1] It permits identification of deaths, analysis of their causes, and the use of this information to respond with actions to prevent future deaths. This knowledge summary describes the types of death reviews, the usage and benefits of different review processes, and gives some examples of death review implementation in high-, middle- and low-income countries.

The challenge

Progress towards MDGs 4&5, to reduce child mortality and improve maternal health, has been insufficient in many parts of the world. In 2010, the United Nation's Global Strategy for Women's and Children's Health was launched, and identified key areas where action is urgently required to enhance financing, strengthen policy and improve service delivery.[2] One of these areas is improved monitoring and evaluation to ensure accountability for results. The Commission on Information and Accountability (CoIA) was formed to determine the most effective international institutional arrangements for global reporting, oversight, and accountability on women's and children's health.[3] One of the key recommendations of CoIA is for countries to set up efficient health information systems to inform policies and practice to reduce maternal and child mortality. Maternal, perinatal and child death reviews can provide valuable information on causes of preventable deaths, and can help countries to meet the CoIA recommendation for accountability and reporting. The information guides actions to improve provision of quality healthcare to prevent future deaths.[4] However, while some traction has been made in identifying deaths, there is still a significant gap in the implementation of response systems for corrective action. Participating in reviews, when response mechanisms are in place, can help generate a renewed and shared sense of commitment to prevent these deaths among community members, health care workers, and managers.

What works

The guidelines on maternal death reviews "Beyond the Numbers," outline five types of reviews depending on their level (community, facility, regional or national), methodological approach and sources of data.[5] The "Maternal Death Surveillance and Response – technical guidance" emphasises the need for systematic and continuous surveillance of maternal deaths by linking the health information system, as well as standardised response systems and quality improvement processes from local to national levels, including the implementation and monitoring of recommendations which arise from death reviews.[1, 6, 7] These guidelines support not only a systematic death review process, but outline structural ways to respond to death reviews for improvement in care.

Perinatal and child mortality reviews, while less commonly implemented and used, can also provide useful information and engage communities and health systems. Perinatal death reviews systematically review stillbirths and neonatal deaths to provide information on the quality of perinatal care; and child death reviews are a mechanism to describe the causes and circumstances of death among children. For example, in the US, multiagency child death review involves a systematic and multidisciplinary process to integrate data and resources from coroners, law enforcement, courts, child protective services, and health care providers.[8] In England, each local authority has established a child death overview panel to review all deaths of children from birth to 18 years in their area.[9]

Maternal, perinatal and child death reviews allow healthcare staff and community members to draw lessons from preventable deaths and improve future practices, and can also be used to inform policies and programmes. Together, these three types of death reviews cover the continuum of care from pregnancy to childhood. At the national level, death reviews can provide general policy recommendations for the health sector and can inform development of guidelines for improving care.

High-income countries

The United Kingdom has the world's longest continuous system of maternal and perinatal death and severe morbidity reviews. In 2012, an improved UK wide programme was developed: Mothers and Babies Reducing Risks through Audit and Confidential Enquiries across the UK (MBRRACE-UK)[11]. It aims to deliver surveillance, audit and confidential case reviews for maternal and perinatal death and severe morbidities in order to assess the quality and safety of maternity and infant services, support improvements in quality and clinical practice through national and local learning and produce evidence based recommendations and good practice point.[11]

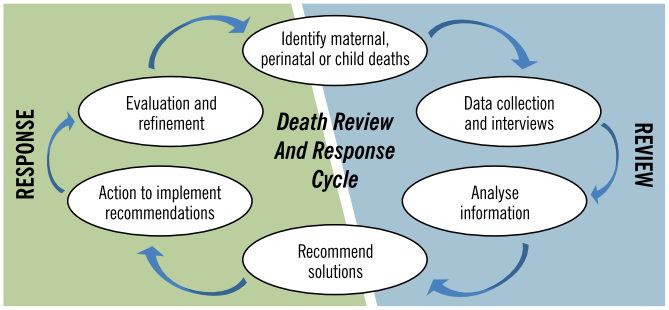
Low- and middle-income countries

In many low- and middle-income income countries, the routine process of death reviews has not been fully implemented, despite its potential to generate evidence and inform action to improve health. In these settings death reviews can be a valuable tool to inform, monitor and improve services to prevent maternal, perinatal and child deaths. In Latin America, one of the goals of the Latin American Centre for Perinatology (CLAP) is to improve maternal and perinatal surveillance to enable policy makers to focus efforts on high-priority problems.[12] Perinatal mortality audit and child death reviews, outside of specific research studies, have been used even less frequently in low-income countries than maternal death reviews. The institutionalisation of the death reviews requires political commitment, a legal framework, national guidelines, financial support, capacity development and involvement of professional bodies.[13-15]

South Africa was the first country in sub-Saharan Africa to implement a confidential enquiry into maternal deaths occurring in health institutions. Maternal mortality is audited through the National Committee on Confidential Enquiries into Maternal Deaths (NCCEMD).[16] In addition, the Perinatal Problem Identification Programme (PPIP) measures perinatal mortality rates and identifies avoidable factors associated with each death.[17] Child mortality is recorded through the Child Healthcare Problem Identification Programme (Child PIP), which monitors deaths among infants and children admitted to paediatric wards of participating facilities. These three audits have demonstrated the potential of systematic death reviews to identify modifiable factors within the health system and beyond, identify local and national priorities, and make recommendations for action to reduce deaths.[18,19]

Figure 1

Death Review and Response Cycle[10]



Challenges

Death reviews can be challenging due in part to lack of knowledge and skills related to conducting reviews, as well as fear of blame and repercussions related to the findings. It is important to recognise that ownership of the process and engagement, within the community or health facilities, can help to identify timely and accurate information. Attention to training of both implementing and senior staff, within facilities, can ensure that the appropriate data are recorded and aggregated for use. Engagement with community members and leaders can also foster ownership and open participation. At all levels, understanding the aims and uses of death review information will support a functioning system. Policies protecting confidentiality and independence are

Table 1

Four types of review processes[5]

	Description	Requirements	Outcomes/Benefits
Community-based (verbal autopsy)	Investigation of the medical causes as well as personal, family and community factors contributing to deaths occurring outside health facilities	Interviews, with attention to sensitivity, with people knowledgeable about the events leading to the death (family, neighbours, traditional birth attendants)	Provides an opportunity to elicit the views of family members and the community on access to, and quality of, health care
Facility Based	A qualitative, in-depth investigation of the causes and circumstances surrounding deaths occurring at health facilities	Cooperation of healthcare staff and a willingness to give accurate and unbiased reports on the management of the case	Provides learning experience for all staff and information to improve care
Confidential enquiries	A systematic multi-disciplinary investigation of all, or a representative sample of, deaths occurring in an area, regional or national level (including both facility and community based cases)	High quality demographic information and research structures to accurately capture data Confidentiality, and annonymity of those involved	Identifies the number of deaths, causes and avoidable or remediable factors Provides general policy recommendations and can inform development of guidelines for improving clinical care
Survey of Severe Morbidity	An in-depth investiation of the factors and circumstances that led to a near miss	Interviews with survivors and staff involved in care	Cases of severe morbidity are more common, and less sensitive to investigate, than cases of death which allows quantification of risk factors

** Adapted from Beyond the Numbers: reviewing maternal death to make pregnancy safer [5]*

important to protect those involved in death reviews, and ensure that accurate information is collected, without the risk of unjustified backlash or repercussions due to the results generated. To improve the uptake of death reviews and ensure ongoing review and response, the review process needs to be embedded within the health system.

Box 1 – Human-rights and accountability perspectives on death reviews

Preventable deaths represent violations of a basic human right and thus are unacceptable. The 2009 UN Human Rights Council resolution "Preventable maternal mortality and morbidity and human rights" acknowledged maternal health as a human rights issue and stressed the need to develop effective accountability mechanisms at facility, regional and national levels.[20,21] Maternal and child death reviews have the potential to provide evidence of existing inequalities and to trigger system-wide action to reduce inequalities and address gaps in quality of care. A human rights-based approach would guide national policies on maternal and child health to align with the principles of accountability, transparency and monitoring. The CoIA accountability framework of 2011 is based on the right to health, equity in health and gender equity, and report that strengthening accountability is an essential but neglected strategy for improving women's and children's health and reducing mortality.[3]

Conclusion

Maternal, perinatal and child death reviews provide valuable information on the circumstances and causes of death, and guide actions at the community and health facility level, and at the level of national policy-making to prevent similar deaths in the future. From a human-rights and accountability perspective, death reviews can inform policies and practices which help ensure basic human rights to life, health, equity, confidentiality, participation and non-discrimination. In order to be effective, however, there must be a willingness to use the information generated from the reviews both locally and nationally to inform structural reforms to not only improve access to maternal and perinatal health services, but also the quality of these services. In order for death reviews to be most effective, the complete cycle must be enacted: identifying deaths, collecting data and analysing the information, and responding to the findings with recommendations, action and evaluation. Through this cycle, the death review process can positively impact focused health system improvements.

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Acknowledgements

Scientific writers: *Katherine Theiss-Nyland and Boika Rechel.* Contributors to development and review: *Bilal Avan, Oona Campbell, Rachel Coghlan, Simon Cousens, Isabella Danel, Pat Doyle, Sue England, Andres de Francisco, Jennifer Franz-Vasdeki, Stefan Germann, Wendy Graham, Shyama Kuruvilla, Ana Langer, Joy Lawn, Gwyneth Lewis, Elizabeth Mason, Matthews Mathai, Affette McCaw-Binns, Lori McDougall, Bob Pattinson, Carole Presern, Roger Rochat, Joanna Schellenberg, Ann Starrs, Mary Nell Wegner.* Coordination team: *Bilal Avan, Agnes Becker, Shirine Voller at the London School of Hygiene & Tropical Medicine.* Design by *Roberta Annovi.*

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