Contextualizing Maternal Morbidity through Community Case Reviews

Raymond A. Aborigo1,2*, Pascale Allotey1, and Daniel Reidpath1

1School of Medicine and Health Sciences, MONASH University, Sunway Campus, Malaysia
2Navrongo Health Research Centre, Ghana

Introduction

For every maternal death, thirty women who survive childbirth suffer from poor reproductive health and serious pregnancy related illnesses or disabilities [1]. Due to these unacceptable mortality and morbidity levels, efforts have been made since the late 1980s to improve maternal health and reduce maternal mortality. This has been one of the key concerns of several international conferences and summits including the Alma Ata conference and the Millennium Summit in 2000. Millennium Development Goal 5 target A, seeks to improve maternal health by reducing by three quarters the 1990 Maternal Mortality Ratios and increasing the proportion of births attended by skilled birth attendants [2].

Mortality Reviews

One of the critical initiatives towards achieving the targets in MDG 5 is the accurate monitoring of maternal mortality in order to track progress towards achieving the goal. In the developing world, monitoring of progress towards MDG 5 has been a major challenge due to porous vital registration systems [3]. To help bridge the data gap, a call was made for health systems to institute maternal health audits to improve notification of deaths and to assess health facility preparedness to handle maternal complications [4]. In response to the call, both maternal mortality and morbidity audit systems are currently being set up as part of routine management of health facilities. At the community level, auditing has been limited to mortalities using the verbal autopsy approach where relatives of the deceased are interviewed about the circumstances surrounding the death to help in the cause of death determination [5]. This determination is made using the ICD codes which only provide the medical or biological cause of death. Meanwhile, following the widespread adoption of the "Three Delays" model [6] and the recognition of the role that social and behavioral factors contribute to maternal mortality in the Sixth report of the United Kingdom Confidential Enquiry into maternal and child health [7], WHO recommended that the verbal autopsy approach be extended for the investigation of personal, family or community factors that may contribute to maternal deaths [4]. This procedure has been termed differently; Community-based Case Reviews (CBCR), extended verbal autopsy, social autopsy and the study of avoidable factors. Eventhough this proliferation of terms without an agreed nomenclature limits the value of science; it nevertheless underscores the relevance of the social context in monitoring maternal health.

Morbidity Reviews

In addition to auditing mortalities at the community level, it has been suggested that audits be extended to severe obstetric morbidities at the community level [8]. Pathways to survival through severe maternal complications have not been adequately explored at the community level. Yet data from survivors of severe maternal complications have the potential to offer critical insights into the pathways to complications and subsequent survival. Such data, obtained from individual accounts of the medical and socio-cultural experiences of the woman that contributed to the complication, makes the audit process more reliable than that obtained from relatives of the deceased in the case of verbal autopsies.

According to the WHO, there is no universally applicable definition for severe acute maternal morbidities or “near misses” but the world body stresses the importance of the appropriateness of any definition to the setting [4]. A “near miss” death has often been defined using medical conditions, usually an organ dysfunction suffered by the woman during the pregnancy, childbirth or the puerperium which is considered to be potentially “life-threatening” [9]. Thus, most studies on near miss audits have centered on health facilities with the aim of improving quality of care at that level.

As most maternal complications occur during labour, in settings where a significant proportion of deliveries occur outside health facilities, most complications will start at the community level and those that choose to seek care at the health facility are likely to arrive in critical conditions. In making the decision to seek care, community members consider the severity of the illness and the culturally appropriate place to seek treatment. Communities have perceptions of what constitutes a 'life-threatening“ condition in pregnancy which may not necessarily conform to the medical definition but ultimately influence their health seeking behaviour. Indeed, there are traditional health practitioners who manage "life-threatening" conditions at the community level and are preferred for the treatment of some maternal complications to orthodox practitioners. The current reliance on health facilities solely for identifying “near misses” may therefore be misleading.

The Way Forward

To address the ongoing dire status of maternal mortality in low income countries, the WHO has recommended approaches for generating data that help understand why maternal mortalities and morbidities happen and how they can be averted [4]. These data serve a number of purposes:

1. To monitor the extent of maternal deaths and progress being made (vital registrations, verbal autopsies and hospital records).
2. To explore the health system based causes of maternal morbidity and mortality and identify points of intervention (confidential and facility audits).
3. To explore the social determinants that contributes to maternal deaths (community-based case reviews).

Conspicuously missing in these approaches is the exploration of biomedical and social factors that predispose women to severe
maternal morbidities at the community level. A thin line exists between severe maternal morbidity and maternal mortality and the causes of these phenomena can be described as similar. Building on the existing methods of data collection, it is crucial to extend our understanding of causes of maternal morbidity by exploring the concept of near misses as they occur within the community.

Consequently, we propose a method similar to the verbal autopsy approach in which both biomedical and socio-cultural causes of severe morbidities at the community level will be obtained. Since maternal morbidities are more frequent than maternal mortalities, this could contribute critical data towards maternal health interventions. Additionally, data will be collected from the victim herself and supplemented by carers during the morbidity incident. In settings where health systems are already overburdened, feedbacks of findings from the community morbidity review could stimulate a community response to initiate community level maternal health interventions.

References