Overview of maternal and perinatal mortality in Sudan

Abdel Lateef Ashmaig Khalifa a, *, Eisa Osman El-Amin b, Sami Mahmoud Abdelkhair a, Mohammed Abdelmoneim El-Sheikh b

a National Ribat University, Khartoum, Sudan
b Reproductive Health Care Center, Khartoum, Sudan

SUMMARY

The Millennium Development Goals (MDGs), agreed on by world leaders at a UN summit in 2000, set targets to achieve by 2015. MDGs 4 and 5 specifically focus on the health of women and children. Sudan is classified as having insufficient progress in achieving MDGs 4 and 5. Both local and international efforts are needed to improve maternal and perinatal mortality rates. Ultrasound is expected to have a positive impact on improving maternal and perinatal mortality.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

Every day almost 800 women die globally due to pregnancy or childbirth complications. Ninety percent of maternal deaths occur in Africa and Asia; the risk of a woman dying from maternal causes in Sub-Saharan Africa is 1 in 39, accounting for 56% of global maternal deaths [1]. Thus, reduction of maternal mortality in Africa is a major concern for national and global health planners. Implementing the programs included in the Millennium Development Goals (MDGs) (Fig. 1) has been a major focus of the Sudan government.

It is recognized that implementation of MDGs and achieving the targets by 2015 could not be achieved by poor countries alone, because of lack of resources and funding. There was a great interest among the developed countries to support developing countries in achieving MDG goals. As per the MDG 8, many developed countries contributed funds to help poorer countries in achieving their MDG by 2015. Unfortunately, the funds have not been utilized appropriately for implementing the MDGs by many low-income countries. More than half went for debt payments and much of the remainder towards natural disaster relief and military aid, rather than further development.

2. Progress towards MDGs 4 and 5

As of 2013, progress towards the goals was uneven. Some countries achieved many goals, while others were not on track to realize any. A United Nations conference in September 2010 reviewed progress to date and concluded with the adoption of a global plan to achieve the eight goals by their target date. New commitments targeted women's and children's health, and new initiatives in the worldwide battle against poverty, hunger, and disease [2]. Fig. 2 shows overall progress towards MDGs by country.

3. Maternal mortality in Sudan

As stated by the World Health Organization (WHO) in its 2005 World Health Report [3], the major causes of maternal deaths are severe bleeding/hemorrhage (25%), infections (13%), unsafe abortions (13%), eclampsia (12%), and obstructed labour (8%). In Sudan, according to the most recent local maternal mortality report (2012) [4], maternal mortality ratio (MMR) was 189 per 100,000 live births in 2012, compared to 186 in 2011 and 209 in 2010. It is worth noting that in the most recent report — still unpublished — the MMR is 127 per 100,000 live births.

Fig. 3 shows the trend in MMR in the past three decades in Sudan. It shows an overall trend toward reduction in maternal mortality. Fig. 4 shows the most prevalent causes of maternal mortality in Sudan from the 2011 report. Obstetrical hemorrhage heads the list, followed by liver disease “hepatitis/jaundice”, hypertensive disorders, and sepsis.

4. Neonatal and child health profile in Sudan

Globally, 7.6 million children die each year from preventable causes, and of these, about 40% die in the neonatal period [5,6]. The vast majority of these deaths are in low- and middle-income
countries such as in Sub-Saharan Africa and most of them occur at home [6,7]. Sudan is classified as having made insufficient progress in achieving MDG 4, where the levels of child and infant mortality are among the highest in the region and the world [5]. The current infant mortality rate is 60 per 1000 live births and the under-five mortality rate (U5MR) is 82 deaths per 1000 live births. The neonatal mortality rate is also high, ranging from 34 to 47 per 1000 births [8].

Despite the fact that neonatal mortality is responsible for 40% of all under-five mortality and more than 50% of total infant mortality, it is not explicitly targeted by MDGs [9]. Addressing neonatal mortality is a major enabler to reduce child mortality and achieve the MDG 4 target. The analysis of the Sudan Household Survey 2 (SHHS-2) 2010 data revealed that neonatal mortality is associated with poverty, advanced maternal age, having a male child, having a cesarean section, and having complications during the pregnancy. Public health interventions targeting the reduction of neonatal mortality should adopt a risk-factor-based approach to detect pregnancy complications early and to strengthen the health system to deal with problems adequately [8].