

Role of the health system on women's utilization of maternal health services in Sudan

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Background:

Maternal mortality and morbidity still pose a significant challenge to policy makers and health professionals. No significant improvements in maternal and child health indicators have been achieved in Sudan up to the present time threatening the achievement of the 4th and 5th Millennium Development Goals (MDGs). Reports revealed that the Maternal Mortality Ratio (MMR) was 1107 deaths per 1000,000 live births. This very high level of MMR also indicates a tragic level of associated maternal morbidity – and these cases are very much concentrated in poor areas. Clearly there is a persistent need to monitor maternal deaths and illnesses in order to try to bring them down to acceptable levels. Unfortunately, no accurate and complete data are collected on a regular basis in order to assist in monitoring these trends.

Generally, there is a lack in the use of reproductive health services in Sudan (i.e., maternal healthcare, gynecological healthcare, and contraceptive healthcare). There is some, very patchy information to show that, pregnancy- related illnesses and severe maternal morbidity in Sudan is mainly due to prolonged and obstructed labour, haemorrhage, sepsis, hypertensive disorders, of pregnancy, and unsafe apportion and ectopic pregnancy (SMS,1999).

Maternal health has becoming an increasingly significant concern in Sudan in recent years , as high fertility, female genital cutting, sexual violence, malaria, and poor coverage of skilled care at childbirth in many areas (including poor pockets in urban areas) increases the risks of maternal morbidity and mortality. Large geographical disparities can be noted with respect to maternal care services and certainly the burden of maternal morbidity and mortality.

Fortunately, the Sudanese government (SG) recently gives high priority to improve maternal health through analyzing the health system and identifying the obstacles that affect the performance of the system and have disadvantages on the women's decision on perinatal health seeking behaviour.

Objective: This study aims to analyze the reproductive health system with respect to the referral system of the maternal complications, health providers, and maternal health services that are provided to women during the perinatal period, in order to understand better its drawbacks particularly the poor performance of the health facilities and the perinatal services provided there, health providers and their capabilities and satisfaction whether who are working on the facilities or in the communities. Moreover, this study identifies the cultural and women's factors that affect their decision and constitute barriers that preventing needy women to use perinatal services; thus, expose them to risk of maternal complications or may be exacerbated to morbidity.

Data: Both qualitative and quantitative data used in the study. *For the quantitative data*, two data sets of nationally representative surveys have been used which are Sudan Household Health Survey (SHHS) in 2006 and 2010. Two questionnaires were applied in both SHHS2006 and SHHS2010 surveys. The household questionnaire consists of two parts: a household schedule which gathers data related to basic demographic information from all individuals included in the household whereas the second part of the household questionnaire obtains information on characteristics of the physical and social environment of the household. Woman's questionnaire

addressed twelve sections related to women and child health, contraception, social network and social services aspects. Samples of sizes 6173 women and 6065 women aged 15 to 49 years, ever married in 2006 and 2010 respectively.

For the qualitative data, 6 FGDs with women have been conducted and 3 FGDs with village midwives as well as 17 in-depth interviews with decision makers and other stakeholders and 14 health providers in 5 primary health centers were considered in an ethnographic survey that has been conducted between May and July in 2012. The survey investigates the obstacles related to reproductive health system in Sudan, quality of health services, obstacles facing health providers and affect their performance or career development. Also, the survey investigate the challenges that facing women who used the perinatal health services in the last pregnancies and to what extent there previous experiences well affect the utilization of perinatal services in the future as well as identifying the reasons of not use maternal services among nonusers.

Methods: this study developed a new conceptual framework that has been developed based on the behavioral model of the contextual and individual influences on health services' use which was developed by Anderson. The framework contains three interrelated components which are environmental and human resources for health and women's characteristics; they represent the input of the model whereas maternal health services utilization constitutes the process of care. Also maternal health output, maternal health outcome, and health impact are the three other components that are included in the model. Each component contains a set of indicators that have been calculated based on the three data sets and the qualitative data.

Preliminary Findings demonstrate that certain factors related to cultural and women's status aspects as well as factors related to health system in Sudan with respect to the referral system of the maternal complications, health providers, and maternal health services that are provided to women during the perinatal period are the most significant factors that constitute challenges in the utilization of perinatal health service among women thus affect maternal health. Also, there are chronic problems in the Sudanese health system that widely affected the quality and availability of maternal health services

Significance: This study fills a current gap in research on women's behaviour in seeking perinatal health services in Sudan. It provide insights on main factors that determine women's decision of family planning use and inform decision makers with some guidelines to reform the reproductive health system with respect to health providers, quality of health services, health facilities. Furthermore, some policy implications of the findings and suggested solution to improving the reproductive health system under limited resources are discussed.