

## Determinants of Maternal Mortality in Pakistan at a Glance

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ARTICLE INFO	ABSTRACT
<i>Article type:</i> Commentary	Maternal mortality refers to the death of a woman who dies during pregnancy or within six weeks after delivery. A number of factors contribute to the high maternal mortality ratio around the globe, particularly, in underdeveloped countries. Pakistan has the highest mortality ratio (260 per 100,000 live births) in the region and is one of the developing countries which have committed to decrease maternal mortality by 2015, according to the millennium developing goals (MDG) 5. However, there are number of factors which made Pakistan unable to achieve the MDG 5 by 2015. In Pakistan there are many factors such as biological, socio-economic, cultural and poor quality of Reproductive Health Services (RHS), which contribute to the alarming figure of Maternal Mortality.. This paper aimed to do an in-depth analysis of the determinants of maternal mortality in Pakistan.
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### Introduction

Maternal mortality refers to the death of a woman during pregnancy or within six weeks after childbirth (1). Pregnancy is a natural process during which women experience some physiological changes due to fetal growth and development.

During pregnancy, women require antenatal care (ANC) for the progress of pregnancy, and the alarming signs need to be recognized and managed. Unfortunately, due to certain reasons, only 50% of women receive ANC in Pakistan (2). Approximately 800 women die every day due to preventable causes related to pregnancy and childbirth. Also, 99% of all maternal deaths occur in developing countries, while most of these deaths are avoidable (3).

Pakistan has the highest mortality ratio (260 per 100,000 live births) in the region (4). This country was committed to achieve the millennium developmental goal (MDG)-five, i.e., it needed to reduce maternal mortality by 2015. Unfortunately, Pakistan failed to achieve the MDG-five by 2015. In this paper, we aimed to introduce some of the determinants, which act as barriers to reducing maternal mortality in Pakistan.

### Determinants of maternal mortality

#### Poverty

Poverty is a barrier to satisfying basic human needs. People with a low socioeconomic status cannot afford or do not have access to reproductive healthcare services. The global financial crisis in 2008 and 2009 increased the price of food products (5) and affected those who were not economically privileged, especially women (6).

A study conducted in Rawalpindi, which aimed to assess the risk factors associated with nutritional deficiency anemia, revealed that the majority of pregnant women were anemic due to iron, folate and cobalamin deficiencies, respectively; all these women belonged to the low socio-economic group (7). In fact, women with these nutritional deficiencies are at a greater risk of postpartum hemorrhage, which is the most important cause of maternal mortality in Pakistan.

#### Female literacy

In poor families, females do not even have access to the basic right of primary education. These uneducated women are not aware of their reproductive health rights and are unable to utilize reproductive healthcare services. The literacy rate of young females, within the age range of 15-24 years, is comparatively lower (53%) than the literacy level of same-aged males (77%) in Pakistan (8). Since educated

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women are more autonomous in decision-making and use of antenatal/perinatal services, ANC is more accessible for women with secondary level or higher education, compared to illiterate women (9).

### **Early marriage**

Early marriage is one of the customs which is still widely practiced in the rural areas of Pakistan. One of the reasons for early marriage could be the economic burden, i.e., parents cannot afford the required amount of food, especially for their daughters. In fact, early marriage is a way to neutralize the economic burden. Consequently, early marriage leads to early pregnancy, which is one of the factors contributing to maternal mortality.

The fertility rate in adolescents is 28.1 per 100,000 live births, which depicts the high prevalence of early marriage in Pakistan (4). Further accompanying factors are inadequate diet and lack of access to healthcare facilities due to low socioeconomic status. As a result, pregnant women end up with anemia and many other pregnancy-related complications, which contribute to high maternal mortality rate.

### **Medical issues**

Medical issues such as obstructed labor, antepartum or postpartum hemorrhage, sepsis and eclampsia are among obstetric emergencies, which require timely interventions. Mortality due to these obstetric emergencies can be prevented through proper ANC, early detection of alarming signs and timely referral of patients to comprehensive emergency obstetric care (EmOC) services.

A retrospective, analytical study was conducted at Lady Reading Hospital of Peshawar in Pakistan to analyze the direct causes of maternal mortality over a period of seven years. As the results indicated, hemorrhage was the most common cause of maternal mortality, followed by pregnancy-induced hypertension, uterine rupture and septicemia (1). Another study revealed that eclampsia was the leading cause of maternal death, followed by sepsis and hemorrhage (10). All these cases of maternal death, reported in these studies, could have been prevented by timely referral and proper use of ANC.

### **Poor reproductive healthcare services**

It is quite encouraging that Pakistan has a good healthcare system which encompasses a Basic Health Unit (BHU), a Rural Health Center (RHC) and a tertiary unit. The available reproductive healthcare services are free of charge. However, BHU and RHC services are underutilized due to inaccessibility. Moreover, poor referral system and unavailability of working ambulances cause delays in having access to RHC.

As in most rural areas, broken roads and unavailability of proper ambulance services hinder the timely transfer of women to hospitals. A cross-sectional survey on emergency obstetric care services revealed that more than 50% of public health facilities lacked female physicians to provide EmOC services; this shortcoming acted as a barrier to using reproductive healthcare services by women (11).

### **Conclusion**

In Pakistan, maternal mortality is a public health concern which needs to be highlighted. There are many factors contributing to maternal mortality. Poverty is the most significant determinant that prevents females from receiving education, having nutritious foods and accessing reproductive healthcare services. Reducing inequity and promoting female education are among the key strategies to empower women and balance their status.

Maternal mortality due to obstetric emergencies can be prevented by strengthening the available healthcare facilities and increasing the skills of female birth attendants. Moreover, governmental and non-governmental organizations should implement a focused program for female education, which would consequently reduce the rate of early marriage. In fact, empowering educated women will consequently improve their socio-economic status and will reduce the gender inequality, as well.

Underprivileged women should be encouraged to use ANC services in order to eliminate financial issues. Food supplements and medicines for the correction of anemia should be also provided for pregnant women. In addition, reproductive healthcare services including post-

abortion care and family planning services should be made available, accessible and affordable within community settings.

Civil society organizations, educationists and healthcare professionals should raise awareness regarding Child Marriage Restraint Act 1929 and its reinforcement, as child marriage is widely practiced in some parts of the country. More skilled birth attendants should be trained and employed in order to provide 24-hour healthcare services and facilitate timely referral in case of obstetric emergencies.

### Conflict of interest

The authors declare no conflicts of interest.

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