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Maternal health care services receiving trends in Bangladesh

AKKUR CHANDRA DAS
Department of Population Sciences
University of Dhaka
Dhaka, Bangladesh

Abstract:

Bangladesh is one of the signatories to the Millennium Declaration 2000, of which, improving maternal health is one of eight goals. Along with the global targets of reducing maternal mortality rate by three quarters between 1990 and 2015, Bangladesh has set some additional targets for achieving the goal by 2015. However, maternal health continues to be a high priority for Bangladesh and the maternal mortality ratio remains an important marker of health system performance in any country. The main objective of this paper is to make an extensive evaluation on maternal health care services receiving trends in Bangladesh. Data were collected from Directorate General of Family Planning (DGFP), Bangladesh. The finding of this study pointed that poor nutrition, inadequate health care and large numbers of closely spaced pregnancies give the women high maternal mortality where malnutrition is another common feature among the women in rural Bangladesh. On the other indication of this paper is that the total number of antenatal, delivery and postnatal care services increased by the proper utilization of family planning programme between urban and rural areas equally in Bangladesh from 2007 to 2015.

Key words: millennium development goal, maternal mortality, antenatal care, delivery care, postnatal care, family planning programme and health system.

Introduction

Bangladesh is one of the South- Asian developing countries where overall health status has developed dramatically very early, then there are still many lacking to get complete well-being status of health; though significant development has been achieved in the area of maternal care over the past several years, the situation deserves further attention and action for improvement. However, the maternal health status of a nation can be characterized by numerous factors such as outcome measures like maternal mortality and morbidity rates or process indicators of service availability and use. These indicators include the levels of antenatal and postnatal care, coverage of tetanus toxoid (TT) vaccination, proportion of deliveries conducted in health facilities by trained birth attendants, or proportion of obstetric complications. Unfortunately, according to many of these measures, the maternal health situation in Bangladesh appears to be poor (Rahman et al., 2003). The achievement in the field of maternal health care services is still unsatisfactory. The maternal mortality ratio 3.2 per 1000 live births and neonatal mortality ratio 37% are still unacceptably high in Bangladesh (NIPORT, 2003 & 2007). The government of Bangladesh has made considerable efforts to provide health and family planning services in the years since the country's independence in 1971, which has resulted in progress in some indicators. The people obtain medical services from private doctors or clinics, unqualified practitioners and pharmacies/shops as well as through the public health service (Mitra et al., 1997). Maternal health and mortality are closely related with maternal health care facilities of the country. One factor potentially influencing the high maternal mortality rate (MMR) is that nearly half 48.8% of the mothers do not receive antenatal care from a medically trained provider (NIPORT, 2007). Antenatal care and institutional delivery are important interventions for the

wellbeing of the pregnant mother and the expected infant, especially in regions where maternal and infant mortality rates are high. Bangladesh has committed to the Millennium Development Goals (MDG) and has developed various policies and strategies for improving maternal and newborn health and the country has made progress in achieving maternal health goals, including MDG 5, with the MMR of 322 maternal deaths per 100,000 live births in 1998-2001 (NIPORT, 2003). Antenatal care from a medically trained provider has increased from 49% in 2004 to 51.2% at present (NIPORT, 2007; & BBS, 2004). Still urban-rural differential in antenatal care coverage is large; 71% urban mothers received antenatal care from medical personnel compared with only 46% of rural mothers (NIPORT, 2007). Another important health intervention for reducing maternal mortality is to have mothers deliver with a skilled birth attendant in a health facility (WHO, 2004). In Bangladesh two thirds of the maternal death is caused by obstetric complication (Rahman et al., 2002). Only 18% births in Bangladesh are attended by skilled attendants like doctors, trained nurses, midwives, paramedics, family welfare visitors (FWV), or community skilled birth attendants (CSBA); where only 15% deliveries occur at a health facility. Again there are significant rural-urban differences, as professionally trained personnel attend 36.7% of births in urban areas, compared to only 13.2% in rural areas and women in urban areas are three times as likely as women in rural areas to give birth in a health facility (NIPORT, 2007). In rural areas of Bangladesh, people are in a vulnerable situation in terms of health care facilities. The situation is worse for women when it comes to their health care seeking behaviors and the services they receive during pregnancy and after childbirth. Health care seeking behavior is not an isolated event; rather, it is an integral part of a woman's status in her family and community. It is a result of an evolving mix of her personal, familial, social, religious, and economic factors. The process of seeking health care can be too

complicated to be described in a straightforward term. A woman's decision to seek a particular health care service is the composite result of her personal needs, social forces, the availability and qualifications of the care providers, and the location of the services (Aktar, 2012). Among the Millennium Development Goals set in the year 2000 was a three-quarters reduction in maternal and infant mortality rates by the year 2015 (UNICEF, 2010). Worldwide, an estimated 515,000 women die of causes related to pregnancy and child birth each year, and their deaths leave one million children motherless (USAID, 2002 & UNICEF, 1991). Over 99% of these deaths occur in developing countries (UNICEF, 2010). On the other hand, maternal mortality declined in a fluctuating way in both treatment and comparison areas where obstetric mortality declined at about 3% per year. After 1987, direct obstetric mortality declined in the north by almost 50%. After the 1990 program expansion in the south, maternal mortality declined, though not significantly, in the south and maternal mortality declined in the south comparison area during 1987-89 and stabilized. The comparison area of the north showed no declined (Ronsmans et al., 1997).

The objectives of this study:

- To explore the trends of receiving maternal health care services in Bangladesh
- To know the number of received antenatal, delivery and postnatal care visit services

Materials and Methods

The study is on the basis on maternal health care services receiving trends in Bangladesh where received monthly data of antenatal, delivery and postnatal care services were collected from Directorate General of Family Planning (DGFP) from

January, 2007 to May, 2015 and time series study design applied for this study. After data collection, the data were analyzed by using time series analysis strategies and presented them as monthly to yearly data those were represented in the final analysis to fulfill the study objectives.

Results

The antenatal care services received in Bangladesh from 2007 to 2015 where first antenatal visit received three times more in 2008 than 2007 but then the number have reduced and increases every year slowly up to 2015. Others, Second antenatal visit services received double in 2008 than the number of visits received in 2007 but it has decreased in 2009 and then the number again increases every year consecutively and it is noted that in 2012 the number has dramatically increased so much higher than other years. On the contrary, third antenatal care visit services receiving numbers are very poor than first and second antenatal visit received numbers among the receivers. From 2007 to 2015, the third antenatal visits increase every year but receiving third antenatal care visit services are higher in 2011 (Table 1).

Table 1: Antenatal care

Year	First visit	Second visit	Third visit
2007	1069719	720233	561618
2008	3499256	1300174	1020620
2009	1802866	1266161	1047184
2010	1860357	1289788	1112474
2011	2197165	1517940	1344574
2012	1984721	2492583	1258318
2013	1981060	1399031	1262573
2014	1929516	1483771	1404041
2015 (Jan- May)	953624	673656	647462

Data Source: DGFP, 2007-2015

Table 2 shows the delivery care services received numbers in Bangladesh from 2007 to 2015, the number of first delivery care

services received in 2007 that was poorer that 2008 and after that year the number of received delivery care increased every year but in 2012 the number was very higher than other years. Second delivery care services received numbers are less than that received delivery care services in first time. The delivery care visit services receiving trends from 2007 to 2015 that was increasing in numbers every years but it was quite changed in 2012 that 2011 distinctly; after all, the trends again increasing from 2013 continuously up to 2015. On the other hand, receiving delivery care visit services in third time that was increasing in trends from 2007 to 2009 but then it decreased in 2010 but in 2011 the number has increased again and from 2012 to 2015 the number of receiving third time delivery care visit services decreases every year.

Table 2: Delivery care

Year	First visit	Second visit	Third visit
2007	147511	14140	15434
2008	267182	25643	21343
2009	294235	30429	22498
2010	268224	32508	20100
2011	310029	43447	23201
2012	513737	42290	23025
2013	277651	50439	18178
2014	286341	50317	18185
2015 (Jan- May)	120078	22390	7075

Data Source: DGFP, 2007-2015

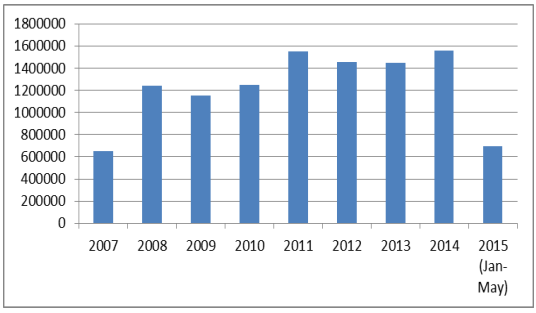

Figure 1: Postnatal care

Data Source: DGFP, 2007-2015

Figure 1 explains the postnatal care services from 2007 to 2015 in Bangladesh where the number of postnatal care services received about double than that was received in 2007 firstly; in 2009, after all, the number has reduced than the previous year but in 2010 and 2011 the numbers again increased and also then in 2012 and 2013 the number has decreased further although the number has increased in 2014 and 2015 comparatively than other years.

Discussion

Maternal health status is one of the most important determinants of measuring overall health status of any country. In Bangladesh, overcoming maternal health indicates that meeting the MDG 5 goal of lowering the MMR to 143 per 100,000 by 2015 is a huge challenge (NIPORT, 2007) so that the government of Bangladesh and many non-government organizations took many steps to achieve the target and family planning program is one of the most significant steps of Bangladesh government to get good output. Family planning programme enables the antenatal care services received from 2007 to 2015 where first antenatal visit received three times more in 2008 than 2007 but then the number has reduced and increased every year slowly up to 2015. Others, Second antenatal visit services received double in 2008 than the number of visits received in 2007 but it has decreased in 2009 and then the number again increases every year step by step and it is noted that in 2012 the number has dramatically so much higher than other years. On the contrary, third antenatal care visit services receiving numbers are very poor than first and second antenatal visit received numbers among the receivers. From 2007 to 2015, the third antenatal visits increase ever year but receiving third antenatal care visit services are higher in 2011. Killewo et al. (2006) showed that delay in accessing obstetric care facilities is highly related to

maternal mortality in rural areas of Bangladesh and this is because of delaying of informal treatment, inability to understand the seriousness of diseases, a lack of monetary support, delaying in care seeking, socio-culturally constructed gender roles place various expectations and constraints on women. Based on Andersen's health seeking behavior model, Haque (2009) investigates maternal health services utilization by married women in Bangladesh. The study reveals that education level is the most important determinant for utilization of antenatal care, choice of place of delivery, and types of assistance at delivery. Two other important factors are household wealth index and place of residence. In addition to utilization of health care services, the place of child delivery is an important factor in pregnant women's care seeking behavior. Studies show that a very small proportion of deliveries took place in hospitals where better services are available.

The overall reduction in early and late neonatal mortality comparing the same periods was 39% and 73%, respectively, in the ICDDR,B area, compared with 30% and 63%, respectively, in the Government service area. Adjusting for socio-economic or demographic factors did not substantially alter the time or area differentials. The dramatic declined in neonatal mortality was, in large part, due to a fall in deaths from neonatal tetanus. The pace of decline was faster in the area receiving intense maternal and child health and family planning interventions, but stillbirths, early and late neonatal deaths also declined in the area not receiving such intense attention, suggesting that factors outside the formal health sector play an important role (Huq and Tasnim, 2008). Increasingly, women are using antenatal care and evidently maternal mortality has decreased. However, many women still face one or more life-threatening complications during pregnancy. Unfortunately, according to Koenig et al. (2007), only one in three women seeks treatment from a qualified provider. Poor nutrition, inadequate health care and large

number of closely spaced pregnancies give the women high maternal mortality. Malnutrition is another common feature among the women in rural Bangladesh. Dietary practices are important indicators of pregnant women's care seeking behaviors for safe motherhood. After surveying pregnant mothers in a rural area of Bangladesh, Shannon et al. (2008) reported that although most of the women have awareness of dietary requirements, half of the women in the survey report unchanged or reduced food intake during pregnancy. Many women practice various dietary taboos and food aversions. A large number of women receive last and significantly small shares of foods during mealtimes. Many women in Bangladesh experience life-threatening complications during pregnancy and childbirth. In most cases, they are not aware of the health-care services available for them. A very low rate of utilization of health-care services results in maternal morbidity, mortality and other complications.

Islam et al. (2006) find various complications such as maternal morbidity caused by the place of delivery. Most of the deliveries take place at either woman's husband's house or at the parents' house. These deliveries are often assisted by untrained birth attendants or by elderly relatives and also delay in seeking care is another crucial factor in women's maternal health. Table 2 shows the delivery care services received numbers in Bangladesh from 2007 to 2015, the number of first delivery care services received in 2007 that was poorer that 2008 and after that year the number of received delivery care increased every year but in 2012 the number was very higher than other years. Second delivery care services received numbers are less than that received delivery care services in first time. The delivery care visit services receiving trends from 2007 to 2015 that was increasing in numbers every years but it was quite changed in 2012 that 2011 distinctly; after all, the trends again increasing from 2013 continuously. On the other hand, receiving delivery care visit services in third

time that was increasing in trends from 2007 to 2009 but then it decreased in 2010 but then in 2011 the number has increased again and from 2012 to 2015 the number of receiving third time delivery care visit services decreases every year.

In Egypt, post-partum care within 24 hours rose from 86% to 93% between the two surveys and on the basis of home deliveries data in Bangladesh from 46% to 67%. In contrast, although most first neonatal care was within 24 hours, few improvements were seen in the proportion of infants receiving early care after institutional or home deliveries (Fort, 2012). The study suggests that maternal education is a powerful and significant determinant of child health status in Bangladesh. Maternal education also positively affects the number of children receiving vaccination. In order to improve the health condition of children in Bangladesh maternal education should be given top priority (Hong, 2006). Figure 1 explains the postnatal care services from 2007 to 2015 in Bangladesh where the number of postnatal care services received about double than that was received in 2007 firstly; in 2009, after all, the number has reduced than the previous year but in 2010 and 2011 the numbers again increased and also then in 2012 and 2013 the number has decreased further although the number has increased in 2014 and 2015 comparatively than other years.

Ahmed et al. (2000) argue that gender imposes certain reproductive roles on women, and thus results in early and excessive childbearing. Gender roles are also responsible for women's lack of power to make decisions about their reproductive behavior and to generate income to become self-dependent and independent decision maker. Thus, gender and socioeconomic inequalities in health-care facilities and services also affect women's care seeking behavior for safe motherhood. Therefore, it is essential to know about the actual health care seeking behavior of women for safe motherhood in rural Bangladesh. Additionally, formulation of policies and their successful implementation have always been a challenge for

both government and non-government organizations. One of the problems in this regard is a lack of correspondence between people's notions of care seeking behavior and the definitions used in maternal health programs. Moran et al. (2007) examined definitions of care seeking for maternal health complications used by families in rural Bangladesh, and concluded that families generally seek care for complications, but the ways they seek care do not correspond to the definitions used by various health programs. Therefore, it is recommended that local definitions be considered in designing interventions and providing services to people in need.

Conclusion

This study pointed that the number of maternal mortality has decreased by increasing maternal health care services in Bangladesh with the proper utilization of family planning programme, which is in the better position comparatively than other developing countries of the world. After all, getting achievement in reducing maternal and child mortality, those then are still burdens of achieving the overall development in Bangladesh so that importantly special focus should take on maternal health, with investigation into the existing policies, strategies and interventions, which are expected to improve maternal outcomes mostly.

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