

## **DOES REPRODUCTIVE HEALTH CARE SERVICES REDUCE RISK OF NEONATAL DEATH AMONG RELIGIOUS MINORITY IN MATLAB, BANGLADESH**

*Lutfun Nahar Abdur Razzaque, A.H.M Golam Mustafa ICDDR,B : Centre for Health and Population Research, GPO Box No. 128, Dhaka-1000. Bangladesh.*

**Abstract:** Reproductive health service utilization and reproductive health status of the religious minority has been examined in this paper using birth of 2002-2003 of the Matlab health and demographic surveillance system of ICDDR,B. Since 1977, ICDDR,B has introduced an intensive reproductive health service in half of its area known as “ICDDR,B area” and the rest is known as “Govt. area”. Reproductive health status has been measured by neonatal mortality. Results of the multivariate analysis show that neonatal mortality between two religious groups (Hindus and Muslims) is similar in the ICDDR, B service area but significantly different in the Govt. service area. Other factors that elevate the risk of death among neonates in both areas are breech presentation of baby and baby not cried after delivery. Education of women significantly reduces the risk of neonatal death in both areas while women’s younger age elevated risk of neonatal death in the Govt. service area.

**Introduction:** In previous decades, research has been directed towards understanding the causal link between religion and demographic aspects of the community. In the mid eighties, analysis macro level mortality data Caldwell et al. (1985) concluded that the high mortality among the Muslim nations is not related to their socialization in Islam but to the deeply rooted culture of patriarchy and its association with women's position and access to education. Earlier Cain et al. (1979) links Islam with lower women status and demand for additional children among women of rural Bangladesh. In recent times there is a resurge quest for understanding demographic and reproductive phenomena from religious perspectives. Latest studies on Muslim and Non-Muslim issues have found a higher fertility among Muslims (Basu 1996; Jeffery and Jeffery 1997; Knodel et al. 1999; Morgan et al. 2002; Dharmalingam and Morgan 2004) and suggests that fertility differential between Muslims and Hindus in India is a difference in "region, residence, class and schooling". In conformity with Basu (1996) and Jeffery and Jeffery (1997), Knodel et al. (1999) concludes that fertility difference between Muslims and Non-Muslims in the Thai society lies in a complex relationship between "religion, ethnicity, cultural identity and political setting". Another set of recent studies, however, refutes the earlier claim of the lower women status and its association with fertility and religion (Morgan et al. 2002). Study based on Indian national data by Dharmalingam and Moran (2004) admits that the fertility differential might be explained in the context of minority status hypothesis developed earlier by Goldscheider (1971). Basic assumption of this hypothesis is that the insecurities of a minority religious group lead them to limit family size to assist social mobility and "acculturation" and that the religion does not have a strong pro-natal ideology. In contrast, if "acculturation" is not desired and the minority group feels economically and socially disadvantaged may encourage higher fertility to ensure group preservation and strength in number. Any resistance to the assimilation may likely to encourage group integration and identification, which in turn may imply a greater commitment to religious ideology and to norms particular to the minority group. Thus it is important to consider the broader socio-cultural situation in which minority groups exist Goldscheider (1971 cited in Knodel et al. 1999; Goldscheider and Uhlenberg 1969).

However, while a considerable attention was given on Islam and mortality and/or Islam and reproduction either at the macro level or in a population where Muslims were either a religious or a ethnic minority (Caldwell 1986; Courbage, 1992; Knodel et al. 1999, Jeffery and Jeffery

1997; Dharmalingam and Morgan 2004). A very few studies have under taken where there was a reverse situation i.e. where Muslims were the majority. In addition, most of the research works until now based on either mortality or reproduction and its association with religion or minority group manifestation. A few studies have been directed towards reproductive health behaviour among different minority groups. Population composition of Matlab health and demographic surveillance area (HDSS) is an appropriate area where Muslims were the majority with a 10 percent of the population is from Hindu religious belief. This proportion of Hindus represents the national population composition. More over, Matlab has an intensive reproductive health intervention programme since 1977 where community workers approach each woman at home with reproductive health care irrespective of their religious belief. Present study utilizing Matlab longitudinal data on reproductive health care system will examine correlate of reproductive health care behaviour among the women of minority group (Hindus) and will compare their utilizing pattern of the reproductive health care with the women of the majority group (here it is Muslim). It will also explore whether the health care utilization have any differential effect on the reproductive health status of these two religious groups.

**Data and Methodology:** The paper utilizes pregnancy history data of 2002-2003 from the Health and demographic surveillance system (HDSS), Matlab, a longitudinal data collection system of ICDDR,B: The International Centre for Health and Population Research, Since 1966, ICDDR,B has been maintaining a health and demographic surveillance system (HDSS) in selected villages of Matlab. HDSS comprises periodic censuses of the population along with a continuous registration of births, deaths, migrations, and marital events. The population covered in HDSS is more than 220,000 during 2002-2003. Each individual has a unique identification number in HDSS by which demographic and socio-economic information of a person can be linked. There were socio-economic and population censuses in 1974, 1982, 1996 and 2005.

Since 1977, ICDDR,B has interjected various carefully designed maternal and child health and family planning (MCH-FP) interventions in about half of the HDSS area. The area where interventions were given is known as ICDDR,B area” and the rest is known as “Govt. area”. The later area receives MCH-FP services from the government’s regular programme. MCH-FP service in the ICDDR,B area includes tetanus immunization to all pregnant women, antenatal

care and screening and referral of high risk women, training traditional birth attendant and posting a trained lady family planning visitor (LFPV) in the sub-centre for help during delivery if needed besides the door to door delivery of family planning services. However, since 2001, doorstep delivery of the family planning service has been shift to fixed site clinic. With this service delivery programme, Contraceptive used has been substantially reduced.

Matlab, the field research site of ICDDR,B is situated 45 km southeast of Dhaka, the capital of Bangladesh. About 85 percent of the population in this area is Muslim, and the rests are Hindus. The society is traditional and religiously conservative. The economy is subsistence, with agriculture and fishing as dominant sources of income. There has not been significant economic improvement in this area over the last decade although fertility and child mortality have declined substantially. In 1982, 55 percent of males and 27 percent of females aged 15 years or more had some form of formal education. In 1996, a major improvement in the level of female education took place. The level of female education of age 15 years and above had increased 19 percentage points while it was only nine percentage points for the male. Matlab is an isolated area and is largely inaccessible, except by river transportation. This situation has undergone some change. The contraceptive prevalence rate during the study period in the ICDDR,B area rise to 69 per hundred couples. Total fertility rate reduced to 3 children per women. Infant mortality was 48 per 1000 birth while child mortality was 3.5 per 1000 children. And neonatal mortality was reported as 34 per live birth. In the Govt service area, contraceptive prevalence rate during the study period was 47 per hundred couples. Total fertility rate reduced to 3.2 children per women. Infant mortality was 54 per 1000 birth while child mortality was 5.2 per 1000 children. And neonatal mortality was reported as 36.4 per live birth.

Basing birth history data of 2002-2003 from the Health and demographic surveillance system (HDSS), area, study followed them to 28 days to ascertain the survival status of the newly born. Information on reproductive health care utilization was registered in the pregnancy history files. Relevant socio-demographic and economic information of the communities were extracted from the HDSS database. About 11452 live births were reported during 2002-2003. Of them 386 were reported as neonatal death. Reproductive health cares were recorded in the pregnancy history

data. Reproductive health care during pregnancy includes, prenatal care during pregnancy, immunization against tetanus, and utilization of reproductive health service during delivery.

Analysis has been carried out using both Bivariate and multivariate technique neonatal mortality were treated as the reproductive health status of the women. This reproductive health status of the two religious groups will be examined using the reproductive health care utilization of the two religious communities controlling the biosocial and socio-cultural factors of the two communities. Here by biosocial we mean the women's age and number of living children and by socio-cultural we mean the education of woman. Finally, for health cares utilization, we include prenatal care and health care utilization during delivery time. The reproductive health status will be modelled separately for each area to examine if the differential reproductive health services have different effect on the reproductive health status of these two religious groups.

**Results:** Results of our bivariate analyses demonstrate that reproductive health care utilization in the ICDDR,B service area is very high (70%) compared to Govt. service area (16%) but health care utilization is largely similar between two religious groups both in the ICDDR,B and Govt. service areas. It also reveals that neonatal mortality between two religious groups is similar to a large extent with a slightly lower mortality rate found among Hindus. This mortality has been model separately for each area. Results of the multivariate analysis carried out for the ICDDR,B service area show that neonatal death between two religious group is not significantly different from one another. Three factors that influence neonatal mortality in the ICDDR,B area are, higher education of women which reduced the risk of neonatal death while pregnancy and delivery related complication (breach presentation of baby and baby not cried after delivery) elevates the risk of dying among neonates in the ICDDR,B service area

However, a different result reveals when a similar model has been carried out for the Govt. Service area. Results confirm that despite a similar utilization of the Govt. reproductive health service, Hindus has significant higher neonatal mortality than the Muslim in the Govt. service area. Other factors that influence neonatal mortality in this area is consistent with other studies related with neonatal mortality. The factors that have significantly elevates the risk of dying among neonates are women's young age, breach presentation of the baby and baby not cried after delivery. Higher education of the women, however, reduces the risk of dying of the neonates.

**Conclusion:** In conclusion, we can say that when the utilization of service is low neonates of the minority community are at a higher risk of death. However, in an intensive intervention situation, Hindu community overcome the adverse situation and improve the survival probabilities of neonates. High neonatal mortality among Hindus found in this area may be related with their culture related with pregnancy and delivery related practice, which is quiet different from the Muslims.

