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Socioeconomic Disparities in Health, Nutrition, and Population in Bangladesh: Do Education and Exposure to Media Reduce It ?

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Abstract: The focus of the paper is to examine socioeconomic disparities in health, nutrition, and population in Bangladesh and to investigate whether education and media exposure would reduce the disparities. Data on health status and health services utilization, extracted from the 2004 Bangladesh Demographic and Health Survey, have been analyzed and presented graphically to highlight the inequalities that exist among different socioeconomic groups. Poor-rich (PR) ratio and concentration index (CI) have been calculated to observe the extent of inequalities. In an attempt to understand whether education of women and exposure to media modifies the poor-rich disparities, CI and PR ratio have also been calculated for each category of education and media exposure. Again, relative ratios (RR) and 'difference in CIs' have been calculated for each indicator to assess the degree of reduction of disparities due to education and media exposure. The observed RRs and 'differences in CIs' for almost all indicators suggest that lower inequality exists among those who are exposed to media compared to those without exposed to media. Similar findings were observed with those having no-education and having secondary or more. That is, higher education and exposure to mass media can reduce the poor-rich disparities substantially.

Key words: Disparity, poor-rich ratio, relative ratio, concentration index

Introduction

Bangladesh has made great strides in the last couple of decades for improving the health of its people. Significant expansion of health care facilities has been accompanied by a massive immunization programme, wider access to drinking water, sanitation, and enhanced food security. Despite the impressive improvement in these aspects many serious deficiencies still remain from perspective of human rights. One of the major deficiencies include continuing disparity among the poor and the rich in terms of getting basic health services and nutritious foods (Osmani, 2003). Reducing the disparities in health, nutrition and survival of children between the rich and the poor has recently become one of the main targets of national governments and international organizations to achieve Millennium Development Goals (MDGs) (Appendix Box 1). In this respect some researchers have highlighted the distribution of health conditions and the use of health services across economic classes using data from national surveys (Gwatkin et al., 2000) and others have made attempts to understand which factors would reduce the disparities and have come up with various implications (Oomman et al., 2003). Some of the major implications include significant improvements in the availability of standard health care facilities and in access to these facilities on the part of the poor. But economic accessibility to these good quality services, that is affordability, still remains a major concern. Addressing this concern should be seen as one of the major challenges facing the provision of good quality

health care service in Bangladesh. It is with this contextual background, the present paper intends to focus the disparities in health, nutrition, and population in Bangladesh and to investigate whether any third factors like education of women and exposure to media could reduce the poor-rich disparity. The paper presents data on desegregated health status and health services utilization in relation to asset or wealth quintiles, a form that enables readers to better understand the distribution of the health indicators from the poorest to the richest sections of society. The desegregated data and identification of confounders that modify the disparities have great potential value for the design and implementation of tasks to achieve the Millennium Development Goals (MDGs) for health in a manner that can bring about the greatest possible gains for the poor. By focusing on problems suffered by the disadvantaged groups, essentially those of greatest concern, these data can increase the likelihood of MDG initiatives to effectively deal with the problems and reach the targeted groups.

Materials and Methods

Data used in this analysis have extracted from the 2004 Bangladesh Demographic and Health Surveys (BDHS). BDHS is a cross-sectional survey that has been carried out once every two years since 1993 among nationally representative samples of women aged 10-49 years. The BDHS is part of the worldwide Demographic and Health Surveys (DHS) programme which collects information on a number of areas such as demographic

characteristics, reproductive history, health service facilities, and nutritional status. The last survey was conducted during the period of November 2003 to March 2004, under the leadership of the National Institute of Population Research and Training (NIPORT), Bangladesh. A nationally representative two-stage probability sample design was followed for the sample survey in which a total of 11440 'ever-married' women were successfully interviewed. Details of the methodologies used in the BDHS can be found elsewhere (NIPORT et al., 2004). The present paper is based on information on last birth of all currently married women (N=5441) aged 10-49 years.

In the present paper, health status indicators, service indicators and other related indicators have been treated as independent variables while wealth index was treated as a dependent variable. Indicators of health status were specified as infant mortality, under five mortality, total fertility rate and nutritional status of children determined by height for age, weight for age and low BMI<18.5 of the mother. Immunization coverage, prevalence and treatment of diarrhea, prevalence and treatment of Acute Respiratory Infection (ARI), tetanus toxoid injections, antenatal care, postnatal care, delivery attendance, use of modern contraception, and knowledge of HIV/AIDS have been used as service indicators. Education and exposure to mass media, newspaper, radio and television, have been used as confounders that have enabled us to examine the effects of the confounders on the reduction of disparities between the poor and the rich.

The wealth index, an index of household economic status, used as a household's background characteristic in addition to information on ownership of household assets and use of selected services (NIPORT et al., 2004). The wealth index was constructed using principal component analysis (Rutstein and Johnson, 2004). Asset information was collected with the 2004 BDHS household questionnaire and included information on household ownership of quite a few consumer items, ranging from a TV to a bicycle, as well as dwelling characteristics, such as existing source of drinking water, sanitation facilities and type of material used for the floor. Each asset was assigned a weight (factor score) generated through the principal component analysis, and the resulting asset scores were standardized in relation to a normal distribution with a mean of zero and standard deviation of one (Gwatkin et al., 2000). Each household was then assigned a score for each asset and the scores were summed for each household; individuals were ranked according to the total score of the household in which they resided. The sample was then divided into quintiles from one (lowest) to five (highest).

The following two statistical indicators of inequality were used to measure the degree of inequality:

1) Poor/Rich Ratio: This refers to the ratio between the rate prevailing in the poorest population quintile and that found in the richest quintile. This is a crude index since, among other things; it provides no information about the middle three quintiles. It does, however, provide a general order or magnitude of differences between the poorest and the richest 20 percent in their access to better Health, Nutrition and Population (HNP) status or services availed.

2) Concentration index: The concentration index (Wagstaff et al., 1991) measures the extent to which a particular health status variable is distributed unequally across all five asset quintiles-that is, the concentration of inequality. The concentration index (CI), from grouped data, can be computed in a spreadsheet program using the following formula (Wagstaff et al., 1991):

$$CI = (p_1L_2 - p_2L_1) + (p_2L_3 - p_3L_2) + \ldots\ldots\ldots\ldots + (p_{T-1}L_T - p_TL_{T-1})$$

where p is the cumulative percent of the sample ranked by economic status, L(p) is the corresponding concentration curve ordinate and T is the number of socio-economic groups. For the ease of interpretation all findings have been summarized and then presented graphically.

An attempt is also made to understand whether education of women and exposure to media can reduce the poor-rich disparity. To accomplish this, individual effects of education and media exposure on poor-rich disparity were examined by calculating concentration index and poor-rich ratios for each category of education and media exposure. Again, relative ratios (RR) and 'difference in CIs' have been calculated for each indicator to assess the degree of reduction of inequality for education. Results have been displayed in Table 1 Similar measures have also been calculated to determine the reduction in inequality due to exposure to media in comparison to its counterpart and Table 2 describes the results. The following formulae have been used to calculate RR and 'Difference in CI':

Relative Ratio: Relative Ratio (RR) refers to the ratio of the following: the poor-rich ratio of the exposed group and the poor-rich ratio of the non-exposed group. Symbolically it can be written as:

$$RR = \frac{\text{Poor/Rich (non-exposed group)}}{\text{Poor/Rich (exposed group)}}$$

Difference in CI: Absolute difference in CI between the exposed and the non-exposed group.

Results

The average Total Fertility Rate (TFR), which is measured by births per woman, was 3.0, and was observed to have decreased sharply from the first

Table 1: Poor-Rich disparities in several indicators by education

Indicators	No education		Primary incomplete		Primary complete	
	P/R	CI	P/R	CI	P/R	CI
U5MR	1.88	-0.07	1.75	-0.07	1.65	-0.06
TFR	1.91	-0.08	1.87	-0.07	1.88	-0.07
Stunted (% severe)	4.25	-0.32	3.93	-0.29	3.58	-0.27
Underweight (% severe)	3.47	-0.24	3.45	-0.24	3.44	-0.23
Low mother's BMI<18.5	2.93	-0.22	2.80	-0.21	2.2	-0.18
Immunizations (all)	0.59	0.06	0.62	0.06	0.60	0.06
Children with diarrhea	1.29	-0.07	1.27	-0.07	1.20	-0.06
Children with fever	1.18	-0.06	1.08	-0.02	1.13	-0.03
Children with ARI	1.74	-0.08	1.48	-0.05	1.54	0.05
Health facility with fever	0.19	0.35	0.25	0.30	0.23	0.33
Health facility with ARI	0.17	0.39	0.19	0.35	0.18	0.35
ANC	0.33	0.21	0.41	0.11	0.49	0.09
PNC (children)	0.08	0.74	0.10	0.71	0.09	0.68
PNC (Mothers) (%)	0.07	0.75	0.12	0.70	0.11	0.70
Delivery place, Public HF	0.06	0.78	0.09	0.73	0.12	0.65
Delivery place, Private HF	0.03	0.83	0.02	0.85	0.09	0.72
Delivery Asst., Qualified doctor	0.05	0.81	0.04	0.83	0.10	0.70
Delivery Asst., Nurse/Paramedic	0.12	0.35	0.13	0.35	0.19	0.29
Treat. For MC, Qualified doctor	0.18	0.42	0.17	0.41	0.21	0.38
Treat. For MC, Nurse/midwife	0.47	0.12	0.46	0.12	0.50	0.11
CPR	0.85	0.03	0.87	0.03	0.84	0.03
Ever heard HIV/AIDS (Female)	0.25	0.29	0.28	0.25	0.30	0.23
Knows one or more ways to avoid HIV/AIDS (Female)	0.15	0.48	0.11	0.52	0.17	0.41
Ever heard HIV/AIDS (Male)	0.28	0.29	0.32	0.24	0.31	0.24
Knows one or more ways to avoid HIV/AIDS (Male)	0.37	0.18	0.34	0.21	0.42	0.14

Indicators	Secondary+		Degrees of reduction: no education vs. secondary+	
	P/R	CI	RR	Diff. in CI
U5MR	1.26	-0.04	1.49	0.03
TFR	1.52	-0.05	1.26	0.03
Stunted (% severe)	2.49	-0.17	1.71	0.15
Underweight (% severe)	2.28	-0.19	1.52	0.05
Low mother's BMI<18.5	1.98	-0.15	1.48	0.07
Immunizations (all)	0.85	0.04	0.69	0.02
Children with diarrhea	1.09	-0.01	1.18	0.06
Children with fever	1.17	-0.06	1.01	0
Children with ARI	1.23	0.04	1.41	0.12
Health facility with fever	0.41	0.18	0.46	0.17
Health facility with ARI	0.53	0.11	0.32	0.28
ANC	0.57	0.07	0.58	0.14
PNC (children)	0.14	0.42	0.57	0.32
PNC (Mothers) (%)	0.18	0.48	0.39	0.27
Delivery place, Public HF	0.21	0.39	0.29	0.39
Delivery place, Private HF	0.10	0.69	0.3	0.14
Delivery Asst., Qualified doctor	0.11	0.66	0.45	0.15
Delivery Asst., Nurse/Paramedic	0.23	0.25	0.52	0.1
Treat. For MC, Qualified doctor	0.27	0.38	0.67	0.04
Treat. For MC, Nurse/midwife	0.62	0.05	0.76	0.07
CPR	0.88	0.20	0.97	-0.17
Ever heard HIV/AIDS (Female)	0.41	0.12	0.61	0.17
Knows one or more ways to avoid HIV/AIDS (Female)	0.21	0.31	0.71	0.17
Ever heard HIV/AIDS (Male)	0.39	0.17	0.72	0.12
Knows one or more ways to avoid HIV/AIDS (Male)	0.47	0.11	0.79	0.07

quintile to the fourth quintile and then come to a standstill in the fifth quintile (Fig. 1). The poor-rich ratio and concentration index indicated that the birth rate was higher in the poorest quintile compared to the wealthiest counterpart. Conversely, approximately half of all Bangladeshi women used some sort of contraceptive method (average 54%), however, the women in the poorest quintile were least likely to use contraception

Table 2: Poor-rich disparities in several indicators by exposure to mass media

| Indicators	Non-Exposed		Exposed		Degrees of reduction: non-exposed vs. exposed	
	P/R	CI	P/R	CI	RR	Diff. in CI
U5MR	1.43	-0.05	1.26	-0.03	1.13	0.02
TFR	1.57	-0.07	1.42	-0.05	1.11	0.02
Stunted (% severe)	2.45	-0.22	2.14	-0.17	1.14	0.05
Underweight (% severe)	2.13	-0.17	1.98	-0.15	1.08	0.02
Low mother's BMI<18.5	1.91	-0.14	1.49	-0.12	1.28	0.02
Immunizations (all)	0.65	0.07	0.88	0.04	0.74	0.03
Children with diarrhea	1.27	-0.07	1.11	-0.04	1.07	0.02
Children with fever	1.12	-0.04	1.15	-0.04	0.97	0
Children with ARI	1.84	-0.09	1.21	0.04	1.52	0.13
Health facility with fever	0.17	0.36	0.48	0.15	0.35	0.21
Health facility with ARI	0.14	0.41	0.51	0.11	0.27	0.3
ANC	0.38	0.22	0.59	0.07	0.64	0.15
PNC (children)	0.12	0.50	0.18	0.39	0.67	0.11
PNC (Mothers) (%)	0.19	0.37	0.27	0.31	0.7	0.06
Delivery place, Public HF	0.12	0.50	0.24	0.38	0.5	0.12
Delivery place, Private HF	0.38	0.21	0.46	0.19	0.83	0.02
Delivery Asst., Qualified doctor	0.25	0.31	0.39	0.22	0.64	0.09
Delivery Asst., Nurse/Paramedic	0.17	0.39	0.33	0.24	0.52	0.15
Treat. for MC, Qualified doctor	0.26	0.31	0.37	0.23	0.7	0.08
Treat. for MC, Nurse/midwife	0.31	0.27	0.53	0.15	0.58	0.12
CPR	0.55	0.11	0.89	0.03	0.62	0.08
Ever heard HIV/AIDS (F)	0.12	0.48	0.78	0.04	0.15	0.44
Knows one or more ways to avoid HIV/AIDS (F)	0.19	0.45	0.41	0.14	0.46	0.31
Ever heard HIV/AIDS (M)	0.21	0.42	0.46	0.13	0.46	0.29
Knows one or more ways to avoid HIV/AIDS (M)	0.28	0.31	0.59	0.08	0.47	0.23

M=male F=female
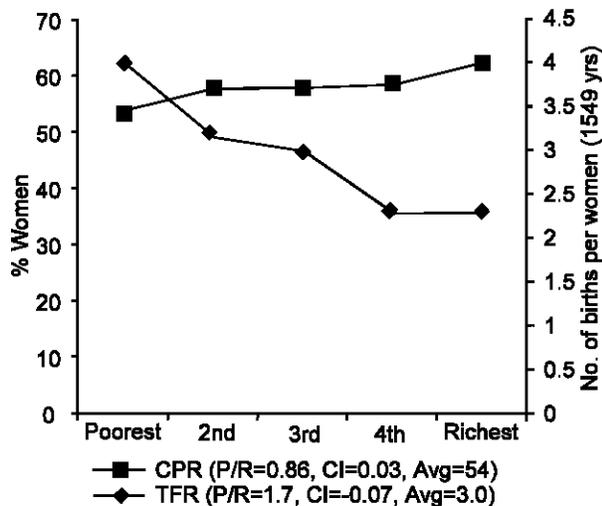
Fig. 1: Fertility and Contraceptive Prevalence in Bangladesh

(50%) whereas more than 50% of the women in each of the subsequent asset quintiles were found to use contraceptive methods.

The inequality seen in the availed services of skilled attendants at delivery, ANC, and PNC received by both the mother and the child between the poorest and richest quintiles is reflected by the inequity seen in the infant mortality rates (IMRs) amongst the asset quintiles.

Both the IMR and under five MR were almost 40% higher in the poorest asset quintile compared to the wealthiest asset quintile, and this disparity was mirrored in the disparity seen in the availed services of skilled attendants at birth, ANC, and PNC received by both the mother and the child (Fig. 2), indicating that skilled attendance at delivery, ANC and PNC may be associated with maternal and infant mortality. Thus, lack of motherhood services may result in poor birth outcomes, such as child mortality, which was the highest in the lowest asset quintile.

Women in the wealthier quintiles tend to use private facilities and that the richest women are about 6 times more likely than the poorest women to deliver in a public facility (Fig. 3). About 15% of the richest women deliver in private facilities compared to only 1.1% of the women in the poorest quintile.

A significant inequality of skilled attendance at delivery is also observed in Bangladesh (Fig. 3). Only 1.4% of the poorest women had deliveries attended by a qualified doctor compared to 26.5% of the richest women-more than a twenty-one-fold increase across quintiles. The rates of attendance by a nurse or a paramedic were found to be less inequitable than the rates of attendance by a doctor, though women in the richest group were 2.6 times more likely to have a nurse or paramedic at delivery than the women of the poorest quintile. Inequality has also been observed in the treatment seeking behavior for maternal complications. Women in
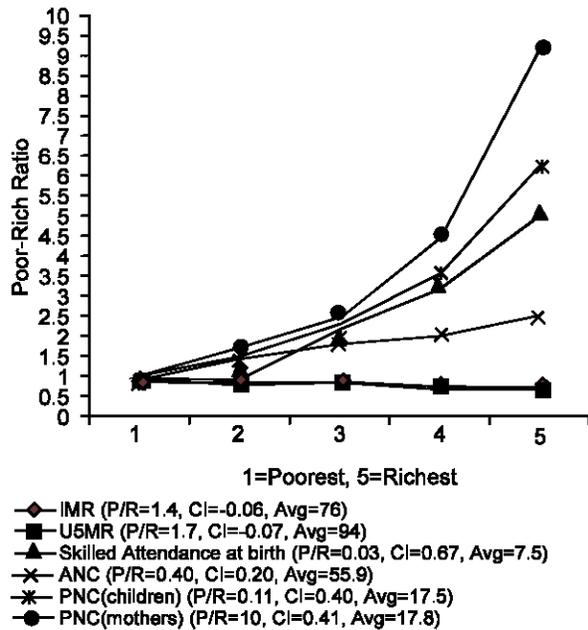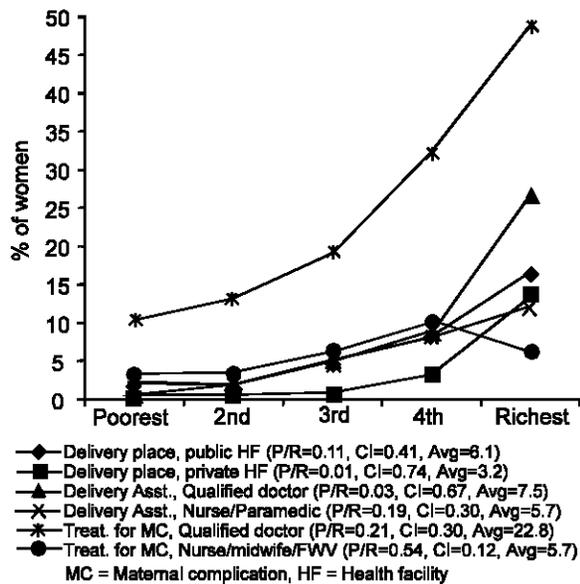
Fig. 2: Child and Maternal Health

IMR (P/R=1.4, CI=-0.06, Avg=76)
U5MR (P/R=1.7, CI=-0.07, Avg=94)
Skilled Attendance at birth (P/R=0.03, CI=0.67, Avg=7.5)
ANC (P/R=0.40, CI=0.20, Avg=55.9)
PNC(children) (P/R=0.11, CI=0.40, Avg=17.5)
PNC(mothers) (P/R=10, CI=0.41, Avg=17.8)

1=Poorest, 5=Richest

Delivery place, public HF (P/R=0.11, CI=0.41, Avg=6.1)
Delivery place, private HF (P/R=0.01, CI=0.74, Avg=3.2)
Delivery Asst., Qualified doctor (P/R=0.03, CI=0.67, Avg=7.5)
Delivery Asst., Nurse/Paramedic (P/R=0.19, CI=0.30, Avg=5.7)
Treat. for MC, Qualified doctor (P/R=0.21, CI=0.30, Avg=22.8)
Treat. for MC, Nurse/midwife/FWV (P/R=0.54, CI=0.12, Avg=5.7)
MC = Maternal complication, HF = Health facility

Fig. 3: Safe motherhood and health facilities

the wealthiest group were 5 times more likely to have a qualified doctor for treatment of maternal complications than the women in the poorest quintile.

Childhood diseases such as diarrhea, fever and ARI affects 7.5%, 40.1% and 20.8% (on an average) of children, respectively, in Bangladesh, and the prevalence of childhood diseases was found to decrease from the poorest to the richest quintile. However, the biggest disparity exists in the treatment of childhood diseases. Children with fever in the richest

quintile were 4.5 times more likely to be treated by a medical service provider than children in the poorest quintiles and a similar scenario has been observed among children with ARI (Fig. 4).

The prevalence of stunting among children, under the age of 5 years decreases with increasing socioeconomic status or wealth quintiles (Fig. 5). Children in the poorest quintile have the highest rates of stunting (26.2%) compared to a prevalence of only 6% in the richest quintile. The poor-rich ratio is very high-3.9-suggesting that the children under the age of 5 in the poorest quintile have 3.9 times higher chance of being stunted than that of the children in the richest quintile. Nearly 80% decline of the prevalence of stunting rates exists between the poorest and the richest quintile. The prevalence rates in the poorest quintile suggest that a high degree of malnutrition prevails within that group.

Moreover, the prevalence of underweight children referring to low weight for age. Prevalence of underweight children declines with each successive wealth quintile (Fig. 5). The poor-rich ratio for underweight children was observed to be 3.08, suggesting that children under the age of 5 years are 3.8 times more likely to be underweight in the poorest quintile than in the richest quintile. The prevalence of underweight children decreases approximately 70% from the poorest to the richest quintile. Trends in the nutritional status of mothers, measured by weight and height, seem to be typical for a transitional economy in which more women in the poorest quintile have lower body mass index (BMI) compared to women in the richest quintile. Poor women are 2.7 times more likely than women in the richest quintile to have a BMI < 18.5 kg/m^2. In transitional economies, women in the poorest family environments have nutrition deficiency, which explains the lower BMI.

The proportion of females (average 60%) and males (average 81.9%) with knowledge of HIV/AIDS was pretty high, but the proportion with knowledge of correct ways to avoid the disease was comparatively low for both females (29.2%) and males (44.6%) (Fig. 6). On the other hand, high inequalities in the level of knowledge exist for both men and women about this issue. The men and women in the poorest quintile are about two times less likely than the males and females in the upper quintiles to report having any knowledge about HIV/AIDS.

In an attempt to understand whether education of women and exposure to media could reduce the poor-rich disparities, the individual effects of education and media exposure on the poor-rich disparity were examined by calculating concentration index and poor-rich ratios for each category of education and media exposure. Then RR and ' Difference in CI' have also been calculated to assess the amount of reduction of disparity for both education and media exposure. The
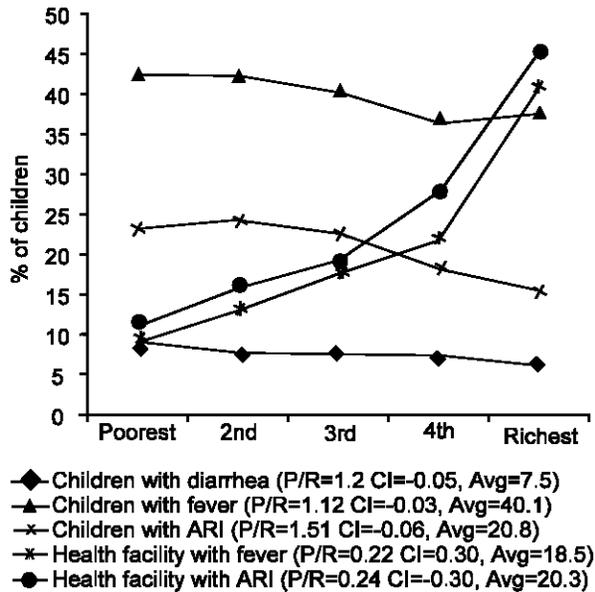
-◆- Children with diarrhea (P/R=1.2 CI=-0.05, Avg=7.5)
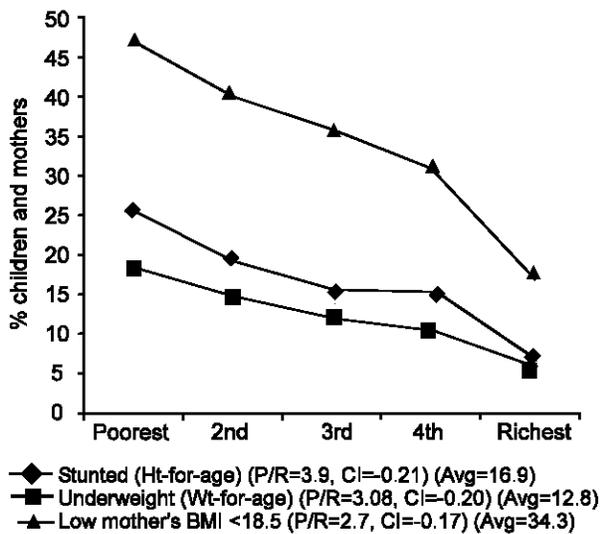-▲- Children with fever (P/R=1.12 CI=-0.03, Avg=40.1)
-✕- Children with ARI (P/R=1.51 CI=-0.06, Avg=20.8)
-✳- Health facility with fever (P/R=0.22 CI=0.30, Avg=18.5)
-●- Health facility with ARI (P/R=0.24 CI=-0.30, Avg=20.3)

Fig. 4: Childhood Disease and Treatment

-◆- Stunted (Ht-for-age) (P/R=3.9, CI=-0.21) (Avg=16.9)
-■- Underweight (Wt-for-age) (P/R=3.08, CI=-0.20) (Avg=12.8)
-▲- Low mother's BMI <18.5 (P/R=2.7, CI=-0.17) (Avg=34.3)

Fig. 5: Nutritional Status of Children and Mother's BMI

Rrs for almost all indicators reveal that higher inequity exists among those who have no education compared to people with secondary education or more (Table 1). The RR with values 1.49 for the indicator 'under five mortality' shows that poor-rich ratio is 1.49 times more among non-educated than the educated. Moreover, 'difference in Cis' for the same indicator reveals that the amount of absolute inequality (0.03) across all quintiles is higher among the non-educated compared to those with secondary or more education. A similar scenario has also been observed for all indicators except for children suffering from fever and contraceptive prevalence rate. On the other hand, Rrs and

-◆- Ever heard HIV/AIDS (F) (P/R=0.31, CI=0.27, Avg=60)
-●- Knows one or more ways to avoid HIV/AIDS (F) (P/R=0.13, CI=0.40, Avg=29.2)
-▲- Ever heard HIV/AIDS (M) (P/R=0.31, CI=0.27, Avg=81.9)
-✕- Knows one or more ways to avoid HIV/AIDS (M) (P/R=0.41, CI=0.19, Avg=44.6)
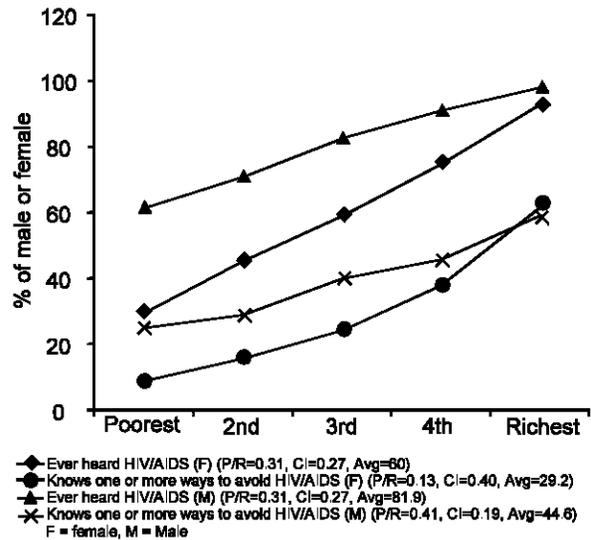F = female, M = Male

Fig. 6: Knowledge of HIV/AIDS among males and females in Bangladesh

'differences in CIs' for all indicators except for children with fever indicated that less inequity exists among those exposed to media compared to the people without exposure to media (Table 2). Therefore, the foregoing analysis indicates that higher education and exposure to mass media can reduce the poor-rich inequity by a significant amount.

Discussion

A general conclusion that appears from this analysis is that a strong association exists between socioeconomic status and health status and utilization of services. A consistent observation across almost all the indicators was that the poor had worse health status relative to the rich and, thus, were less likely to use health services. These results are not unexpected; however, the extent of disparities is significant. This has raised serious concern among the various stakeholders for that it may act as barrier to achieve MDGs. In response to this concern some researchers have come up with various explanations (Oomman *et al.*, 2003). These explanations suggest that disparities in health, nutrition and population among the poor and the rich would be reduced if it would be possible to ensure adequate availability of standard health services as well as equal physical accessibility for the poor to these good quality services. But there is plenty of evidence that it is the poor people who tend to utilize low cost service more, for the simple reason that they can't afford the cost of good quality services. Thus the affordability of the cost of good quality services for the poor still remains a major concern. In theory, various alternative methods can be adopted to increase affordability-for instance, distributing health vouchers to the poor, creating an affordable

health insurance system, or providing free or subsidized services at the point of delivery. On the other hand, it is important to examine whether any third social factor could modify the existing results of disparity. In this regards the present paper has been made an attempt and found that education and media exposure could reduce the disparities substantially.

A clear explanation exists about how education and media exposure can reduce inequality. A strong association exists between the level of education of women and use of reproductive-maternal health services. There is plenty of evidence to show that education and health are complementary, as higher education levels are associated with better health care, even after controlling for other factors that go with better education. Moreover, education improves the status of women, increases age at marriage, reduces unwanted fertility, and improves utilization of health services (Pebley *et al.*, 1996) by contributing towards self-confidence of women, improving their maternal skills, increasing their exposure to information, and thereby altering the way others respond to them (Das Gupta, 1990). Conversely, media broadcasts have tremendous coverage and influence, particularly among women of reproductive age, instigating significant improvements in health status during pregnancy and also better utilization of health services. Many media organizations are rising to the challenge by promoting awareness about reproductive health and educating listeners and viewers about the facts of ill health. Thus, women exposed to mass media are better informed about health service facilities compared to non-exposed women. Therefore, it is clear that illiteracy and non-exposure to media prevent women from obtaining easy access to health services and care, even when quality health services are geographically within reach.

Findings in this paper have important policy implications for health, nutrition, and population in developing countries like Bangladesh. Accelerating achievement of the Millennium Development Goals (MDGs) and ensuring equitable provision of information and services will depend on country's capacity to ensure adequate availability of good quality health services that must be accessible to those who need them the most. This means that the services must be affordable for the poor and to be provided to everyone without discrimination. Moreover, intervention that improve access to education for the females of poor families to delay early child bearing and improve knowledge amongst women about their health as well as equip them to seek appropriate health care for themselves and their children are important.

MDGs that have direct implications for health form the basis of the discussion contained in the introductory paragraph.

Appendix

Box 1 displays the associated targets and indicators.

Box 1. Millennium Development Goals for Reproductive and Child Health

Goal 1: Eradicate extreme poverty and hunger

Target 2: Between 1990 and 2015, halve the proportion of people who suffer from hunger.

Indicators: (i) Prevalence of underweight children (under 5 years of age)

Goal 4: Reduce Child Mortality

Target 5: Between 1990 and 2015, reduce the Under-5 Mortality Rate (U5MR) by two-thirds.

Indicators: (i) Under-5 Mortality Rate
(ii) Infant Mortality Rate
(iii) Proportion of 1-year-olds immunized against measles

Goal 5: Improve Maternal Health

Target 6: Between 1990 and 2015, reduce the Maternal Mortality Ratio by three-quarters.

Indicators: (i) Maternal Mortality Ratio
(ii) Proportion of births attended by skilled health personnel

Goal 7: Combat HIV/AIDS, Malaria, and other diseases

Target 7: By 2015, have halted and begun to reverse the spread of HIV/AIDS.

Indicators: (i) HIV prevalence among 15-24-year-old pregnant women
(ii) Contraceptive Prevalence Rate

Acknowledgements

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