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Safe Motherhood Day 2011

হাসপাতালে প্রসব করান, মা ও শিশুর জীবন বাঁচান

Special Supplement
Saturday, May 28, 2011

Maternal Mortality Drops 40% in Bangladesh

The 2010 Bangladesh Maternal Mortality and Health Care Survey (BMMS 2010), a nationally representative survey sponsored by the Government of Bangladesh, has revealed that maternal mortality has fallen by 40 percent from the levels found in a similar survey in 2001. This drop is a major achievement for Bangladesh and places her ahead of pace to achieve the Millennium Development Goal 5 (MDG5) target of reducing the maternal mortality ratio* to 143 deaths per 100,000 live births by 2015.

The BMMS 2010 was funded by the Government of Bangladesh, USAID, the Australian Agency for International Development (AusAID) and the United Nations Population Fund (UNFPA). It was conducted by the National Institute for Population Research and Training (NIPORT). with technical assistance from MEASURE Evaluation, the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) and USAID/Bangladesh. The main purpose for conducting BMMS 2010 was to assess progress toward MDG5.

During the last two decades, the Government of Bangladesh has invested in a maternal health programme with support from a number of development partners. Committing to achieving MDG5, Bangladesh's targets are to reduce the maternal mortality ratio (MMR) to 143 per 100,00 live births by 2015, and to increase skilled attendance at child birth to 50 percent by 2010. In the last decade, the health, nutrition and population sector programme of Bangladesh has adopted a national strategy for maternal health focusing on Emergency Obstetric Care (EmOC) for reducing maternal mortality, focusing especially on early detection and referral of complications during pregnancy and during and after delivery, and improvement of quality of care. Since 2004, the government embarked on a program to retrain existing government community health care workers as Community Skilled Birth Attendants (CSBA) as the primary operational strategy for achieving the 2015 target of 50 percent skilled attendance at birth.

The survey was carried out from January to August 2010 in a national sample of 175,000 households, interviewing ever-married women ages 13 to 49, as well as investigating any deaths to women of reproductive ages, especially maternal deaths.

The 2010 survey showed that maternal mortality declined from 322 in 2001 to 194 in 2010; a 40 percent decline in nine years. The rate of decline was at an average of about 5.5 percent per year, compared to the average annual rate of reduction of 5.4 percent required for achieving MDG5. Bangladesh appears to be on track to achieving the primary target of MDG5.

Comparing the 2001 and 2010 surveys show that the overall mortality among women in the reproductive ages has declined across all ages during these nine years. Consistent with the trend in overall mortality among women in the reproductive ages, maternal mortality has also declined in almost all ages between the two surveys. Deaths during both pregnancy and delivery has declined by 50 percent, while maternal deaths after delivery went down by only about a third.

The entire decline in MMR has been due to reductions in all causes of direct obstetric deaths** . Haemorrhage and eclampsia are the dominant direct obstetric causes of deaths, together responsible for more than half of the MMR. Obstructed or prolonged labour (7%) and abortions (1%) are the other direct obstetric causes of deaths. We note that abortion-related deaths declined from 5% of MMR in 2001 to about 1% of MMR in 2010. The 2010 survey also did not identify any case of infection as an underlying maternal cause of death. Indirect obstetric causes*** of deaths account for about a third (35%) of maternal deaths.

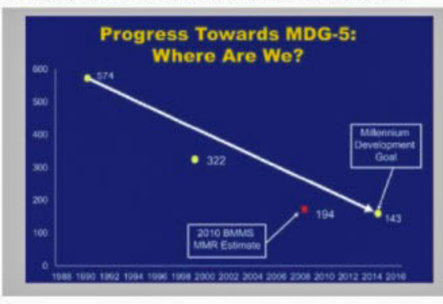
Where do we go from here?

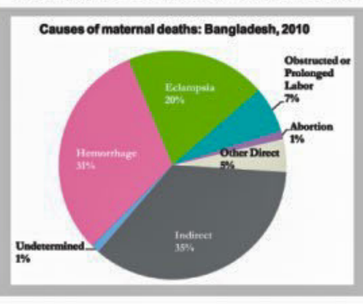
Attaining MDG5 will require further efforts to achieve a further 25% reduction in MMR. What are the options? These options have been discussed in the other articles in this supplement?

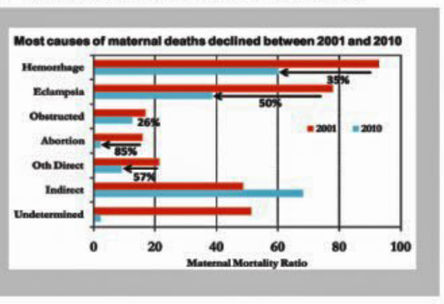
Maternal Death: Death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes

**Direct obstetric death: Deaths resulting from obstetric complications of the pregnant state (pregnancy, labor and puerperium) from interventions, omissions, incorrect treatment, or from a chain of events resulting from any of the above*

***Indirect obstetric death: Deaths from previous existing disease or disease that developed during pregnancy and which was not due to direct obstetric causes, but which was aggravated by physiologic effects of pregnancy*







BMMS – Why has maternal mortality (MMR) declined by 40% between 2001 and 2010?

The risk of a maternal death in Bangladesh is now down to 1 in 500 births, and thus a rare event. However predicting which women may experience potentially fatal obstetric complications is not possible. Thus all pregnant women are encouraged to deliver in a facility with a medically trained attendant, and if necessary, to have a C-section.

Behaviour Change in Seeking Health Care: Facility Delivery: After low levels for many years, the proportion of women delivering in a facility has finally begun to rise, more than doubling from 9% in 2001 to 23% in 2010. Much of that increase has come through the private sector (2.7% to 11.3%), although the public sector has seen some increase (5.8% to 10.0%). NGOs remain a minor contributor for deliveries (0.6% to 2.0%), though they play a more important role for ANC.

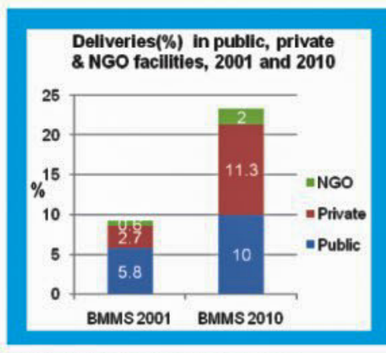
Skilled Birth Attendant at Delivery (SBA): Births with a SBA have doubled (12.2% to 26.5%). Almost the entire increase in skilled attendance at delivery has been through facility deliveries. While the rise in facility delivery is welcome, it still leaves some 2.4 million births at home annually. But the decline in maternal deaths suggests that many pregnancies with complications may now be selectively going to facilities. Where complications arise, C-section may be needed to avoid fatal consequences.

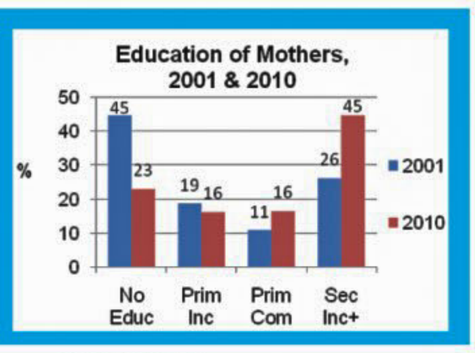
C-section: There has been a 5 fold increase in use of C-section (2.6% in 2001 to 12.2% in 2010, equivalent to 90,000 in 2001 rising to 436,000 annually in 2010). Much of the increase has occurred in the private sector where 71% of all deliveries are performed by C-section (equivalent to 288,000 in 2010), compared to 35% in the public sector. This private sector focus may be a barrier to access for the poor due to higher fees.

There is a concern that while some women who need a C-section may not get it, also some women who may not need it are getting it. Among women who reported no obstetric complications, 9.4% had a C-section. Of course it may be that foetal distress was occurring, or the woman was not aware of her own or her baby's condition. The fact that over 30% of women in the wealthiest quintile had a C-section suggests some unnecessary procedures. This exceeds the estimated maximum of 15% of pregnancies needing this procedure.

Apart from the increase in facility deliveries, there is clear evidence that women suffering obstetric complications are increasingly seeking treatment, particularly outside the house.

Treatment Seeking for Complications: There has been a substantial increase in women experiencing obstetric complications seeking treatment (53% in 2001 to 68% in 2010). This includes home based treatment, purchasing medicines from pharmacies, and treatment seeking outside the home. Seeking treatment from a facility has greatly increased (16% to 29%) indicating that both awareness and referral systems are improving. However, not all treatment seeking is effective, as the qualitative study showed that many of the maternal death cases sought treatment at a non-CEmOC facility which could not manage their problem.





What accounts for these behavioural changes?

Improved Access to Health Programs: In addition to the 59 District Hospitals (DH) and 60 MCWCs, the number of Upazila Health Centres offering CEmOC had increased from three in 2001 to 132 in 2010. This should have improved availability outside the District headquarters where the DHs and MCWCs were concentrated.

There is evidence from the qualitative study that better communications, particularly the wide spread availability of mobile phones, has contributed to more rapid contact with service providers. Overall improvements in road communications seem to have increased use of facilities. Health behaviours are not simply determined by availability of facilities and services, but are also influenced by socio-economic factors.

Higher Education levels: Globally higher female education is associated with behaviours which reduce risk of maternal (and child) mortality. The investments in female primary and secondary education are starting to show positive impacts on risk behaviours.

The levels of education of recent mothers have risen dramatically in the past decade. The proportion of mothers with no education has halved since 2001 (45% to 23%), and the proportion with secondary schooling has nearly doubled. This trend must have contributed to the impressive increases in facility delivery, in use of medically trained attendants at delivery, and in treatment seeking for obstetric complications.

Increased Awareness: Not only are there fewer uneducated women giving birth, but among the uneducated, their awareness and behaviour is changing positively. For example, among uneducated women, care seeking for complications at a facility has doubled (8.6% to 16.9%) while remaining unchanged among women with secondary plus education (56.1% to 52.2%). This differential improvement is reducing inequities by education.

Better Economic Conditions: Bangladesh has undergone an improvement in overall economic well-being since 2001 (GNI per capita up from $350 in 2000 to $550 in 2008), which is reflected in better housing, greater access to electricity, and presumably greater ability to mobilize funds for medical emergencies. This will be reflected in increases in many of the indicators among the poorest

Virtually all indicators of use of health services by the poorest quintile show considerable improvement and reductions in inequity between rich and poor. Among the poor, facility delivery has tripled (2.5% in 2001 to 7.5% in 2010), as has use of medically trained assistance at delivery (3.6% to 9.2%), and seeking care for complications has doubled (6.7% to 14.5%). However the absolute gap between rich and poor remains substantial (15% versus 47%).

Demographic factors: A woman is only at risk of maternal death if she gets pregnant. Thus, reducing fertility will reduce maternal deaths, just as reducing MMR will. Between 2001 and 2010 the Total Fertility Rate fell from 3.2 to 2.5 - a 22% decline in 9 years. Overall, maternal deaths are reduced by 40%, of which half is due to fertility decline, and the other half is due to decreased MMR among pregnant women. This leaves annual maternal deaths at around 7,300, down from 12,200 in 2001.

Where do we go from here?

Attaining MDG5 will require further efforts to achieve a further 25% reduction in MMR. What are the options? The leading cause of maternal death in both surveys was haemorrhage. Several interventions have been tested and are being made available to reduce this problem. MOHFW approval has been given to distribute Misoprostol tablets to all pregnant women shortly before delivery to minimize the risk of haemorrhage. In addition, the use of delivery mats have been tested and proved to be effective at aiding attendants in determining if blood loss is 'excessive' around delivery. Improved facility care for emergencies is needed, as is widespread availability of blood transfusion. There is increasing availability of Magnesium Sulphate for management of (pre-) eclampsia. Hopefully these interventions will become more widespread.

It is necessary to understand the benefits of improved access to upgraded facilities at Upazila and Union levels. Plans are in place to expand such access, but staffing issues will need to be addressed, as well as essential logistics, including blood transfusion, being ensured. Finally, access for the poor is essential, and as relatively expensive interventions become more widely available, some kind of health insurance (possibly like Demand Side Financing or another model) may be needed to overcome the fear of heavy costs of life saving obstetric procedures.

Jobeda's Story

At the age of 30, Jobeda became pregnant for the 2nd time. Everything was going well until her water broke on a Thursday evening, two days before she delivered the baby. A Trained Birth Attendant (TBA) was called who predicted that her delivery would be delayed since she was not full term. The TBA stayed the whole night and observed her water breaking – smaller in amount at the beginning which increased over time, but there was no pain. On the following morning, the water broke in splashes. Watching her condition, her husband called neighbours and relatives. Two relatives went to a village doctor and brought a saline. The neighbours suggested to him to take her to a hospital explaining that if she continued losing water, the baby would soon be in a critical condition. The TBA also suggested to him to take her to the hospital. At around 10 am she was taken to the Sadar hospital.

It was Friday and there was no doctor available in the hospital; only a nurse was there who admitted her in the hospital. Once they reached there, she was given a saline and injection and her water breaking stopped. They bought prescribed medicines for 1,100 taka. Nothing happened that day and no doctor came to see her. In the next morning a doctor came and told that she would deliver by that evening. On that evening, she suddenly started labour pain, but no one in the hospital came forward to attend her. Husband said that she saw the nurse in the room but she was busy doing something else without paying any attention to her. The husband watched all these from the window and requested the nurse to attend the delivery but she replied "what should I do?" There was a cleaner in the room at the time. When the child's head came out, the cleaner assisted in the delivery of the baby and the nurse came and cut the cord. Jobeda saw profuse bleeding from the birth passage and her bed seemed flooded with the blood. The woman was crying and told her mother and her husband, "Someone is pulling out my kolija (heart)". In next one hour, her family bought some more medicines worth 1,300 taka as prescribed to them.

At around 9 pm, she was rolling her eyes and not responding to anybody. Another nurse came at around 9.30 pm and told the husband that he needs to manage more money since her wife needs blood. In next half an hour he arranged 2,500 taka by different means. However, he did not know the blood group and how much blood would be needed to save his wife. He gave all the money and a visiting card given by a journalist who donated him the money to the nurse. Upon seeing the card, she returned the money and told him that they would manage the blood.

After two hours he was told that they could not manage blood and the woman needed to be transferred to the medical college hospital. The nurse told the husband to get the blood from Sandhani, or Matrimongol or the Chaurasta (meeting place of four roads). She suggested to take her immediately, otherwise she would die.

The hospital hired an ambulance at around midnight and transferred the woman to the medical college hospital within one hour but they had to wait outside the hospital gate as it was closed. It took them sometime to admit her in the hospital. The woman was unconscious. After the admission, the husband was asked to manage blood. At about 3 am in the morning, the husband, accompanied by the driver of the ambulance, who was very helpful to take him to different places to manage blood, went to Matrimongol, Chaurasta, a private organization who sells blood and Shandhani but could not manage blood. In most cases it was very difficult for them to wake up people as it was very late night.

The driver of the ambulance left him in the morning as he could not wait anymore. He then hired a rickshaw and visited all those places again for blood. Observing her condition, attendants of other patients were willing to donate blood, but the blood group was not matching. She needed "O" negative blood. Her other relatives were also in search of blood and found a place. They were told that blood would be available at about 4 pm which would cost 4,000 taka per pound. Since the woman's family was unable to manage blood, her husband agreed to get the blood even with this price. While his relative was waiting outside the hospital to collect blood, the husband went to see his wife's condition and found her dead. He learnt that Jobeda had died at 3:30 pm, 30 minutes before he arrived in the hospital.

(name of the deceased has been change to protect the identity)

The Final 100 Meters

Business As Usual Will Not Do

With the rest of the nation, I am elated with the unexpected decline in maternal mortality over the past decade but as a public health program manager I understand the huge challenge in front. Finding 7,500 deaths in time to intervene in a population of 160 million will really be a daunting task.

Let's set our own target

I carefully restrain myself from getting carried away by the so called achievement of being on track in reaching MDG5 target of 143 deaths by the year 2015. To me, any MMR beyond 40 per 100,000 live births is unacceptable by any standard in this millennium. Most deaths are preventable in the current resource scenario. What we need is, a little added intelligent leadership for the rubber to hit the road. Our flag which was hoisted on top of the Mount Everest twice in the last three months, topples down if it let its mothers die of simple avoidable reasons.

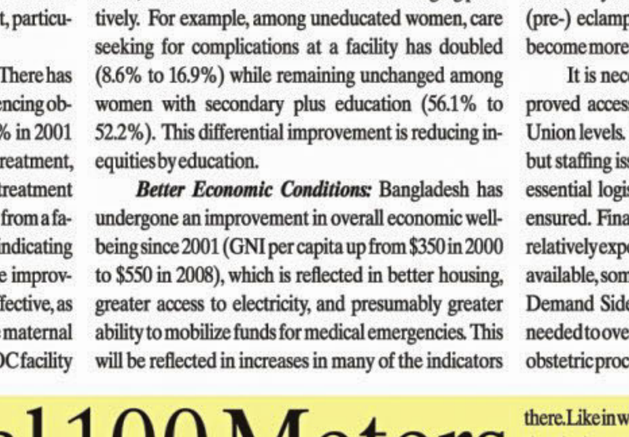
The analogy

It's the "Final 100 Meters". Let's talk about the analogy a little bit. Definitely place holding is important as it was in the previous 100 meters, but we have to make special efforts in a specialized way to keep it only and only at the top position. Every centimeter counts now (i. even a single death has a huge impact on the ratio, and ii. every component of the program has to function properly), every bit of energy should be brought out (optimal quality and engagement should be ensured) and, be transferred to the bottom half of the body (i. focus on where deaths are happening more and, ii. on strategies that yield most benefit) and the pace should be maintained throughout until we reach the finishing line (whatever is done, measures to sustain that should be built in the plan). Consolidation efforts should be prioritized in short term, putting expansion agenda in the longer term plan. This is an immediate strategic approach and should be on top of all our efforts and not be taken as an alternative to on-going or longer term plans.

Where should we emphasize: the differential programming

Differential programming needs to happen in five dimensions - geographic, demographic, epidemiologic or causal, socio-economic and, programmatic. We already know that there are remarkable geographic differentials in mortality. Mortality is higher in Sylhet and Chittagong divisions compared to rest of the country. These two divisions need customized program strategies and resource allocation. Since other program indicators are also correspondingly low in these areas, family planning in particular, we need a stronger community based distribution strategy in Sylhet and Chittagong. Donors supporting NGO programs and family planning should be requested to focus on these two divisions in the next couple of years. Human resource gaps are more pronounced in these two divisions than others - there should be priority recruitment plans to fill up the vacancies.

Women with certain characteristics have higher risk of death. Permanent methods of family planning needs to be promoted on those who have completed family planning, Number of births need to be reduced too, as higher parity brings higher risk. Women who have a bad obstetric history, closely spaced pregnancy, those with antenatal complications should be followed up intensively. Women from lower socio-economic strata, with less education tend to die more than their wealthier and better educated counterparts. The program should have strategies to identify these women and bring under intensive follow-up. Pregnancy surveillance, microplanning meeting with participation of community volunteers, regular antenatal care sessions are some of the strategies that are instrumental in increasing coverage of antenatal program and identification of risk pregnancies in particular. Positions of Family Welfare Visitors (FWV) - the only paramedical cadre to provide maternal child health and clinical contraception care at union levels are vacant quite substantially. There should be priority effort to recruit FWVs; for immediate impact, trained paramedics from private sector and trained nurses should be recruited on an immediate basis.



No matter what we do at the demand end, nothing will result if facilities are not ready to provide emergency obstetric care. The BMMS 2010 shows an increase in facility delivery contributed mostly by the private sector. We have to remember that women residing in remote rural areas are not within the reach of our still very opportunistic private sector providing health care. Most of our Upazilla Health Complexes designated to provide emergency obstetric care (EmOC) are non-functional because of lack of appropriate manpower. Simply, we have failed to keep adequate number of obstetricians and anaesthetists out there. Like in war time or during disasters we have a round-the-clock control room, the Ministry of Health & Family-Welfare should create a similar very small high powered "EmOC Human Resource Cell". This cell should, not only monitor appropriate human resource availability on a daily basis but also should have the necessary authority to ensure deployment and removal of staff of any level from any facility that are relevant to EmOC services. Demand side financing (DSF) has apparently shown indications to be effective to attract women to deliver in facilities. With improvements in the quality of supply side of this program, DSF should be implemented only in socio-economically backward upazillas with careful monitoring.

The big vacuum still lies in the large number of home deliveries. While we keep talking about our plans for the midwifery program (which is yet to be conceptualized and shaped) in longer run, we have to make every effort to increase coverage by community based skilled birth attendants (CSBA). Since we are appointing service providers at community clinics who can not provide regular FP and EPI services from a static point, the FWAs and HAs who has been trained as CSBAs can be freed to conduct more deliveries. The DGs of health and family planning need to provide clear specific instructions to their respective CSBAs to consider delivery attendance as part of their priority job and also put this as part of the regular monitoring and supervision. Heamorrhage and eclampsia that have caused half of the maternal deaths. Aggressive expansion of the community based use of misoprostol tablets and making measurement of blood pressure and testing of urine for Albumin during antenatal check-up should be made mandatory.

Take advantage of the strong tail wind

We are fortunate that we have a strong tail wind. Our government have been quite consistent in investing in female education over the past few decades. We are now seeing young educated mothers more and more who are reachable through print media. All sorts of communication have improved at a pace of a blitzkrieg, women employment and access to microcredit enhanced empowerment and, foreign remittance has been flowing in and trickling down to the rural Bangladesh. Most development partners have mothers and newborns in their priority health agenda for Bangladesh.

Need the leader to take initiative

Ministry of Health and Family Welfare is in a very advantageous position to be able to operate in a relatively favorable turf in the present scenario. Maternal mortality is a function of a country's multisectoral development and interlinkage. The leadership I have been alluding to should come from the MOH&FW. We all look forward towards it for a successful completion of the "Final 100 Meters".

(The writer is Ishtiaq Mannan, Chief of Party, MaMoni)

PERSPECTIVE

In Conversation with Mr. Humayun Kabir, the Honourable Health Secretary, Ministry of Health and Family Welfare

The Bangladesh Maternal Mortality Survey 2010 has been completed. This has revealed that Bangladesh has made commendable success in decreasing the maternal mortality rate by 40%.

Ishtiaq Mannan: What in your opinion are the factors that assisted in decreasing the maternal mortality rate?

Honourable Health Secretary: I would like to admit at the outset that this gain has not happened because of the Health sector alone, education and specially education for women, increased employment opportunities also plays a role. The health factors responsible are, the antenatal health check up has increased, the consultation with doctors has increased during pregnancy, there is a marked difference in the care seeking behavior. This also indicates that the service has been made accessible to them. It's not only the government facilities, but increasingly women are going to the private facilities and the NGO facilities.

As you know we are progressively trying to upgrade the health facilities and increasingly trying to send paramedics to the remote areas. We are also trying to increase the health facilities. Another factor could be that communication has improved. So, people have now been able to overcome this barrier and access the health facilities.

IM: If we look at this as a 400 meter race, we are in the final hundred meter of reaching the MDG 5 target. What are preparations we are taking to reach these final 100 meters?

HHS: If we talk about emergency health care or making health services 24/7, we need to fulfill certain requirements like the presence of midwives or doctors. We have to ensure for complicated cases the presence of anesthetist with an obstetrician. We will try to pilot in some areas of Sylhet to ensure this pairing. But we have shortage of midwives. We have done Community Skill Birth Attendant programme, built capacity of the Trained Birth Attendants and have even thought of training Traditional Birth Attendants. Some NGOs are doing this and people are taking their services. Our Honourable Prime Minister has pledged that there will be 3000 midwives in 5 years. But if we enter into the 4 year cycle it is going to be very difficult for us to train 3000 midwives in this short time. We can provide short term training to those who have had midwifery in their curriculum. However, side by side, we are also thinking of creating posts for these 3000 midwives.

Ideally we would need 4 midwives per facility. Then they can rotate among themselves and provide services 24 hours 7 days a week.

If we could ensure Family Planning maternal mortality could be decresed. Still in villages the girls get married at the age of 13/14. It is often because of social causes like eve-teasing. The law needs to be enforced against early marriage.

IM: You spoke about piloting in Sylhet of ensuring the pair of surgeon and anaesthetist. But we know that this is a challenge. We recruit them, they are there in paper but cannot be found in their work stations. What definite measures is the government taking in addressing this?

HHS: We see this every time when we open the newspaper. Doctors are not in their stations. Sometimes they sign the attendance register and leave. We are trying to address this with a tough hand. We are doing in depth monitoring for the last six months in what is happening specially in the remote areas. We have taken disciplinary action against 200/300 doctors. This is clearly having an impact. Maybe not in the same way everywhere but we have seen an increase in the presence of doctors. But you know in general we have a shortage of anaesthetists. We need to increase this number to make the 'pairing' possible. We would need 483 anaesthetists for the 483 Upazillas. This is a human resources issue. We need to properly develop the human resource.

IM: The disciplinary action is the harsh side of things. There is also the other side. For example, those being posted to remote areas and not being in their work stations would argue that the places they are asked to live in are actually extremely challenging for living. When we ask someone to stay in the remote areas, are there any incentives made available to them?

HHS: We are giving incentives for the doctors who are transferred or posted in the hill tracts. we will ensure that they are transferred within 1 year from that area. Previously, anyone posted there used to feel they are stuck for the next 7/8 years of so. We will ensure that they are transferred within 1 year and before the normal period of 3/4 years.

We want to address the weaknesses in our health sector holistically and only then we can bring an overall change.

(This conversation is an extract from a talkshow on ATN Bangla titled, 'Reaching the MDG targets in decreasing maternal mortality: the final hundred meters where the Honourable Secretary was a guest. The talkshow was anchored by Dr. Ishtiaq Mannan)