FINAL

Assessment of Delivery of Quality Care at Primary, Secondary and Tertiary Level Hospitals in Bangladesh

Prepared for

Bangladesh Medical Research Council (BMRC)

Abul Barkat
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HDRC Human Development Research Centre
humane development through research and action

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Acknowledgement

In recent times, it is observed that the most of the people are taking their health services from the Primary, Secondary and Tertiary level hospitals. However, some service providers (specially, doctors, nurses and management authorities) and service recipients (clients) are complaining of quality of services based on level of satisfaction from service, barriers of services during emergency management, poor referral procedures among those facilities. In this context BMRC has undertaken the initiative to explore the state of quality of health services through conducting a national representative research study using standard methods acceptable to relevant stakeholders.

In terms of complexity, volume, extent of issues covered and very short time span this study has been a challenging and not-easy-to accomplish the endeavor. It is an outcome of team effort of the consultants of Human Development Research Centre (HDRC) and Bangladesh Medical Research Council (BMRC). We are thankful to BMRC for entrusting us with the responsibility to conduct the study under the auspices of HDRC.

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We are indeed grateful to the technical and support staff of HDRC, and all the field staffs worked in data collection process for this study.

All our efforts with this study would really be fruitful on the day when the people of this country would be able to get quality health services at all stages.

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Abbreviations

ADB	Asian Development Bank
AG	Availability of Guidelines
ANC	Ante Natal Care
BAF	Basic Amenities/Infrastructural Facilities
BCG	Bacillus Calmette Guerin
BDHS	Bangladesh Demographic and Health Surveys
BE	Basic Equipment
BEmONC	Basic Emergency Obstetric and Neonatal Care
BMRC	Bangladesh Medical Research Council
BTS	Blood Transfusion Service
CC	Community Clinic
CEmONC	Comprehensive Emergency Obstetric and Neonatal Care
DALY	Disability Adjusted Life Years
DC	Diagnostic Capacity
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
DH	District Hospital
DIDA	Swedish International Development Cooperation Agency
DPT	Diptheria, Pertusis and Tetanus
EALS	Equipment for Advanced Level Support
ECG	Electrocardiogram
EM	Essential Medicine
EmOC	Emergency Obstetric Care
FGD	Focus Group Discussion
FGD	Focus Group Discussion
FP	Family planning
FP	Facility Preparedness
FPS	Facility Preparedness Score
FPS	Facility Preparedness Score
FWVTI	Family Welfare Visitor Training Institute
HDRC	Human Development Research Centre
HepB	Hepatitis-B
HIV	Human Immunodeficiency Virus
HPNSP	Health, Population and Nutrition Services Programme in Bangladesh
HR	Human Resources
IMCI	Integrated Management of Childhood Illness
IPPF	International Planned Parenthood Federation
IUCD	Intra-uterine Contraceptive Device
KII	Key Informant Interview
MATS	Medical Assistant Training School
MCH	Maternal Child Health
MC-RAH	Maternal, Child and Reproductive Adolescent Health
MCWC	Maternity and Child Welfare Centres
MDGs	Millennium Development Goals
MDR-TB	Multi Drug Resistance Tuberculosis
MLSS	Member of Lower Subordinate Staff
MNCH	Maternal, Neonatal and Child Health
MUAC	Mid-Upper Arm Circumference
MOHFW	Ministry of Health and Family Welfare
MOLGRD&C	Ministry of Local Government, Rural Development and Cooperatives
MR	Menstrual Regulation

MSS	Management System Score
MTR	Mid Term Review
NCD	Non-Communicable Diseases
NGO	Non-Government Organization
NID	National Immunization Day
OPV	Oral Polio Vaccine
ORS	Oral Rehydration Salt
OT	Operation Theater
PQ	Provider Quality
PQS	Provider Quality Score
PR	Patient Referral
QSS	Quality of Service Score
SACMO	Sub-assistant Community Medical Officer
SARA	Service Availability and Readiness Assessment
SDGs	Sustainable Development Goals
SMS	Supportive Management System
STI	Sexually Transmitted Infection
TB	Tuberculosis
TSPSS	Training of the Service Providers and Supporting Staff
TT	Tetanus Toxoid
TTI	Transfusion-Transmitted Infections
UH&FWC	Union Health and Family Welfare Centre
UHC	Upazila Health Complex
UHFWC	Union/Upazila Health Family Welfare Centre
UNFPA	United Nations Population Fund
UPHCSDP	Urban Primary Health Care Service Delivery Programme
USAID	United States Agency for International Development
USC	Union Sub-centre
WHO	World Health Organization

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Executive Summary

Introduction: Fundamental premise of a health system is the value of human life. The value that any society puts on human life largely determines the human, material and financial resources that it allocates for the health system. The effectiveness of a health system largely depends on the availability and accessibility of services in a form which the people within their socio-cultural context are able to understand, accept and utilize. On the other hand, satisfaction has major role for health services from the perspectives of both service providers and service recipients. All these three components (availability, accessibility and satisfaction of both providers and clients) taken together constitute quality of health services. In recent times, it is observed that, most of the people are taking their health services from the primary, secondary and tertiary level public hospitals. However, service recipients (clients) are complaining of poor quality of services. Service providers (especially, doctors and nurses) and management authorities are also complaining of barriers faced during emergency management, and poor referral procedures among different level of facilities. In this context, BMRC has undertaken an initiative to explore the state of quality of health services through conducting a representative research study using standard methods acceptable to relevant stakeholders through competitive bid by a nationally and internationally renowned research firm, the Human Development Research Centre (HDRC).

Methodology: Considering the objectives, this study adopted a mixed method approach to collect the relevant data and information from the relevant stakeholders at various levels. This accompanying study followed both probabilistic and purposive sampling approach. The study included three vital components: Quantiatative survey (facility survey and exit clint survey), Mixed method survey (provider survey), and Qualitaitve survey (FGD and KII). Facility survey covered 156 randomly selected facilities (combining primary, secondary and tertiary level facilities) following SARA guideline. From the selected facilities, 1,096 exit clients and 248 service providers were interviewed. Qualitative survey included 16 focus group discussion with clients and 16 key informant interviews with government officials relevant to health services at district and 4 at national level.

Child Health Service: Curative care for sick children, growth monitoring and child vaccination were reportedly available in more than ninety per cent primary level public health facilities and in all secondary and tertiary hospitals. Collectively, all three basic child health services were reported in 83 per cent primary health facilities and all secondary and tertiary hospitals. In the NGO sector, individually as well as collectively, all three basic child health services were available in all NGO clinics; however, high amount of heterogeneity evident in the availability of these services in private hospitals. Curative child care was reported in half, growth monitoring in one-fourth and child vaccination in four percent private hospitals.

Additionally, Vitamin-A micronutrient (iron and zinc) to children and treatment of malnutrition and de-worming was provided by more than 70 per cent primary health facilities, all secondary and tertiary hospitals in the public sector, all NGO clinics and very few private hospitals. By and large, 86per cent primary health facilities and all of the secondary and tertiary hospitals that offered child curative care had IMCI guidelines. Almost equal percentages of primary, secondary and tertiary hospitals possessed growth monitoring guidelines. Among the private and NGO sectors, health facilities that offered child curative care, IMCI and growth monitoring guidelines were found in 62and 83 per cent private hospitals respectively and in a wide range of NGO clinics. Sixty four per cent primary and all secondary and tertiary hospitals that offered curative child care had all of four basic equipment such as child scale, height measuring board, thermometer and stethoscope. The corresponding figures for private hospitals were 23 per cent.

None of the NGOs had all four basic equipment. All six standard items for infection control were found in 17 per cent primary, 50 per cent in each of secondary and tertiary hospitals within public sectors and in 54 private hospitals. Thus, preventing the spread of infection within large segments of the health facilities/hospitals providing child curative care was often compromised. Among the public facilities that offered child curative care, more than 80 per cent of the primary, secondary and tertiary hospitals possessed oral rehydration salts (ORS), paracetamol, widely used antibiotic amoxicillin and the drugs for treating intestinal parasites. The availability of other essential drugs such as Zinc, Azythromycin, and Cotrimoxazole were not as common. In private and NGO sectors, availability of ORS, zinc, paracetamol and antibiotics cotrimoxazole and amoxicillin were in all NGOs clinics but availability of these drugs were found in less than one-third of private hospitals. Among the public sector, 38 percent UHCs, 25 percent secondary and 50 per cent tertiary hospitals offered child curative care and had all WHO recommended readiness indicators to treat sick children. Among private hospitals and NGO clinics, it was two-third in private hospitals but less than one-tenth in private hospital.

Maternal and Neonatal Health: National Guidelines Antenatal Care (ANC) Service was found available in all secondary and tertiary, and almost all the surveyed primary level public health facilities. National ANC guidelines were available in 85 per cent ANC facilities. Iron tablet and Folic acid tablet were available in around 80 percent, and Tetanus Toxoid (TT) vaccination in 75 percent facilities. However, TT vaccination were available on all ANC days in only one-fourth facilities. In around one-third of facilities offering ANC, Urine protein test, Urine glucose test, Rapid test for hemoglobin, and Diagnosis and treatment of STIs were available. Manual BP apparatus was available in around 80 per cent, Stethoscope in 84 per cent, Adult weighing scale in 78 per cent and Height board in 48 per cent facilities. However, weighing of clients and blood pressure taken in around half, and blood test for anemia are routinely done in one-fourth facilities. All the ANC services were available in all secondary and tertiary facilities every day for pregnant women.

Normal delivery was available in all the secondary and tertiary level public health facilities, and among primary, in all UHCs, two-thirds of UHFWC/USCs, and one in ten CCs. And, 80 per cent private hospitals and all NGO hospitals reported the same. Caesarean delivery was available in all secondary and tertiary level public health facilities, and among primary, in 42 per cent UHCs. About 80 per cent private hospitals and all the NGO hospitals reported the same. Both, ANC, normal delivery and Cesarean delivery were available in all the public health facilities at secondary and tertiary level, and among primary, in 42 percent UHCs. Among the facilities offering normal delivery, situation of tertiary health care facilities was the best, followed by secondary health care public facilities and NGO clinics in terms of availability of equipment for routine deliveries. Overall, two-thirds of facilities have the National Guidelines for Basic Emergency Obstetric and Neonatal Care (BEmONC), and half have the National Guidelines for Comprehensive Emergency Obstetric and Neonatal Care (CEmONC) available in service provision area. In terms of availability of medicines for delivery services, situation of tertiary hospitals was the best, followed by secondary level hospitals and NGO clinics. In three-fourth of facilities offering delivery care 24 hours/day duty schedule were there. It had been revealed that, most of the indicators of standard precautions for infection control for delivery services were maintained in higher proportion at secondary and tertiary level public health facilities, and private hospitals were the next in this context. Among primary health facilities, UHCs were the best, followed by UHFWCs.

Among all the facilities conducting normal delivery, "drying and wrapping newborns to keep them warm" as routine newborn care was practiced at secondary and tertiary level facilities, and among primary, in all UHCs, 94 per cent UHFWC/USCs, and all CCs. Routine newborn care practices were there in all the private and NGOs hospitals as well.

Family Planning Services: Family planning (FP) services were available in 90 per cent primary level public health facilities. It was also available in all NGO facilities and few private facilities. Among those providing FP services, National Family Planning Guideline at workplace was available in 45 per cent primary level, all secondary and tertiary level public health facilities. It was also available in two-thirds of NGO facilities. Among the facilities offering FP services around one-third conduct 'weighs clients' and 'take blood pressure' routinely for all FP clients.

Among the surveyed facilities providing FP services, one-third facilities at primary level, around 90 per cent secondary and all tertiary level public health facilities, and all private and NGO facilities were providing IUCD. Almost four-fifths of indicated equipment and supplies for IUCD provision were available there. Among the facilities providing FP services, Implants were being provided at more than one-third facilities. About half to two-thirds of indicated items equipment and supplies were available in those facilities. Vasectomy services were offered in 28 per cent facilities providing FP services. Among the facilities offering Vasectomy, all the indicated items of equipment were available and functioning in all the tertiary level facilities, followed by secondary and primary level public health facilities, and all private hospitals. Among the surveyed facilities providing Vasectomy, all indicated items of supplies were available in all tertiary level facilities, exception being Taliquest book. Among the facilities providing Vasectomy, Vas dissecting forceps was available in all secondary and tertiary level facilities and three-fourths of UHCs. In around 80 to 90 per cent facilities providing Vasectomy service, some of the listed medicines were available and not expired. Tubal ligation was being conducted at one-fourth facilities at primary level, all secondary and tertiary level public health facilities, and all private hospitals and NGO clinics. Around 50 to 80 per cent facilities had some listed items available for offering Tubal ligation services. Among the facilities providing Tubal ligation, Tubectomy-kit was offered in three-fourths of UHCs, all secondary and tertiary level hospitals, private hospitals and NGO clinics. Among the facilities providing Tubal ligation, all relevant medicines were available and none expired in all tertiary, secondary and primary level public health facilities, and all NGO clinics.

Non-communicable Diseases: By and large, 14 per cent (67% excluding UH&FWCs/USCs and CCs) primary health facilities and all secondary and tertiary hospitals reportedly offer diabetes services. Of them, 81 per cent (excluding UH&FWCs/USCs and CCs) primary health facilities, 75 per cent secondary and all tertiary hospitals could provide both diagnosis and prescribe medicines for diabetes. Facilities likely to provide diabetes services were available in around three quarter (72%) private hospitals and all NGO clinics. Of them, both diagnosis and treatment for diabetes was available in nearly all (95%) private hospitals and two-thirds of NGO clinics. Equally, overall 14 per cent (67% excluding UH&FWCs/USCs and CCs) primary health facilities and all secondary and tertiary hospitals reportedly offer services for cardiovascular diseases. Among them, both diagnosis and treatment were available in 81 per cent (excluding UH&FWCs/USCs and CCs) primary health facilities, 88 per cent in secondary and all tertiary hospitals. Nonetheless, both diagnosis and treatment services were available in 87 private hospitals and around one-third NGO clinics were providing services for cardiovascular diseases. National guidelines for diabetes and cardiovascular diseases were found in all secondary and tertiary hospitals, whereas in primary health facilities, National

guidelines for diabetes were found in 94 per cent and for cardiovascular diseases in 69 per cent UHCs. Such guidelines for diabetes and cardiovascular diseases were found in 74 and 70 per cent private hospitals and 67 and 33 per cent NGO clinics respectively. Among the facilities those offered services for diabetes and cardiovascular diseases, availability of all three basic equipment for treating diabetes was 81, 88 and 100 per cent respectively in UHCs (primary), secondary and tertiary hospitals, nonetheless, for cardiovascular diseases it was 94 per cent in UHC (primary) and 100 per cent in each of secondary and tertiary hospitals. Regardless of public, private and NGO, all of these health facilities lacked essential medicines for diabetes as well as cardiovascular diseases. Also, they were not prepared to provide service for diabetes and cardiovascular diseases effectively.

Tuberculosis (TB) Services: According to mandate of MOHFW, TB services are supposed to be available in all facilities from UHCs and above. As we surveyed, TB services were found to be available in 86 per cent UHCs (primary), all secondary, and half of the tertiary facilities. Among those providing TB services, only UHCs (71.4%) were using sputum only for diagnosing TB in facilities. Both sputum and x-ray were used by 19 percent UHCs and all secondary and tertiary facilities for diagnosis. However, 76 per cent UHCs (primary), 63 per cent secondary, and all the tertiary facilities referred clients outside for TB diagnosis. Around 29 per cent UHCs (primary), 63 per cent secondary, and all the tertiary facilities are prescribing treatment or managing patients who are on TB treatment. Among those prescribing treatment, 91 per cent UHCs and all secondary and tertiary facilities prescribed 2-month intensive and 4-month continuation phase for newly diagnosed TB patients. Around 5 percent UHCs, three-fourths of secondary and all tertiary facilities have a system for testing TB patients for HIV infection.

Although, 91 percent UHCs, half of the secondary and all tertiary facilities reported to have National guideline for diagnosis and management of TB, a lower proportion among those were able to show it in service site. Around 70 per cent UHCs, two-thirds of the secondary and all tertiary facilities had any guideline for the management of HIV and TB co-infection in service area. Similarly, around 70 per cent UHCs, two-thirds of the secondary and all tertiary facilities had any Guideline for the management of HIV and TB co-infection in service area, and 52 per cent UHCs, 86 per cent secondary and all tertiary facilities had any Guideline for the management of MDR-TB in their service area

Blood Transfusion Services: Reportedly, 83 per cent UHCs (primary), and all secondary and tertiary hospitals in public sector, private hospitals and NGO clinics were able to test blood for grouping and cross-matching. However, existence of blood transfusion services was found in 42 per cent UHCs (primary) and all secondary and tertiary hospitals within the public sector and in 74 per cent private hospitals. Safe blood transfusion guidelines were available in all or nearly all UHCs, secondary and tertiary hospitals and majority of private hospitals. Among these, 70 per cent of UHCs, all secondary and tertiary public health facilities, and 44 per cent of private hospitals followed the guidelines for safe blood transfusion and performed all screening tests against 5 blood borne diseases (i.e., HIV, Syphilis, Hepatitis B, Hepatitis C, and Malaria) before blood transfusion. Refrigerator for storage of blood was there in all the UHCs, secondary and tertiary health facilities in public sector, and three-fifths of private hospitals.

Emergency Medical Care: WHO model of emergency care system framework is yet to be operationalised in Bangladesh. As per the framework, pre-hospital emergency care (care at the scene) as well as effective transport care were not available due to lack of equipped ambulance services. Concerning emergency unit care, the accompanying study revealed that emergency medical care was offered in all the UHCs (primary), secondary and tertiary hospitals in public

sector and was also widely prevalent in the private sectors. Observation beds were available in all secondary and tertiary hospitals, but were not found in majority (79%) of UHCs (primary). Shortage of staff was reported in half of UHCs, one-third secondary and half of the tertiary hospitals. Lacks of adequate equipment were also reported in more than half of UHCs and a quarter of secondary level facilities.

Super Specialized Services: Super specialized services are largely available in public tertiary health facilities at the national and divisional level namely medical college hospitals and specialized public hospitals as well as few corporate private hospitals. To assess the availability of super specialized services, the study surveyed two sample medical college hospitals. The study revealed that, coronary care unit (CCU) and intensive care unit (ICU) were available in both the medical college hospitals, but NICU) and burn unit were not found in Dinajpur medical college hospital. On the contrary, services for haemodialysis, cardiac catheterization laboratory for coronary angioplasty (stenting) and operation theater (OT) for cardiac surgery were available in Dinajpur medical college hospital but not in Mymenshing.

Quality of Services: Quality of services in different type of facilities (including public and private-NGOs) has been explored using nine broader components (amenities and infrastructure, basic equipment, advanced services support equipment, diagnostic capacity, essential drug, patient referral mechanism, staff availability, management supervision system availability of guidelines). Estimations of quality score for each of the components has been made. Such estimations show that in terms each of the component scores vary widely by type of facility. For most of the components district hospitals along with medical college hospitals are in a better position. Private hospitals in general are not in a satisfactory position. The state of NGO hospitals is almost close to private hospitals. Overall quality of services score by type of facilities has been estimated by averaging the individual components of quality scores. The assessment shows that in terms of combination of nine broader components district hospitals is in the best position with overall quality score 0.85 and is closely followed by medical college hospitals (overall quality score = 0.77). The same for upazila health complex is 0.66 and union health and family welfare centers is 0.33. The overall quality of community clinics is 0.26. The overall quality score of private hospitals is 0.35 and NGO hospitals is 0.42. It implies that still it is long way to go for attaining long close to ideal situation.

Client Satisfaction: Almost all of exit clients met the desired service provider and received required services across facilities. On aggregate, service providers in private and NGO facilities provided better services (with higher index scores) compared to Public facilities. However higher proportion of exit clients of public facilities were satisfied with services and higher proportion reported that they would recommend services of this facility as compared to private and NGO facilities. Females are significantly more satisfied compared to male and the ratio of satisfaction is negatively associated with socio economic status. The overall service quality index is 72 per cent. Among public facilities, the index value decreases as the tier goes up in a ladder. The discussants responded to such trend.

Provider Satisfaction: Availability of manpower is sufficient in only 11.5 per cent facilities. 23.8 per cent and 41 per cent facilities had adequate equipment and logistic facilities respectively. The overall service quality is only 25 per cent. Irrespective of such gap in support services there is high satisfaction from clients due to lack of awareness about the service receiving benchmarks. Only 52.5 per cent providers were satisfied with the service they provide. The greatest impediments according to service providers are shortage of manpower followed by shortage of medicine and equipment.