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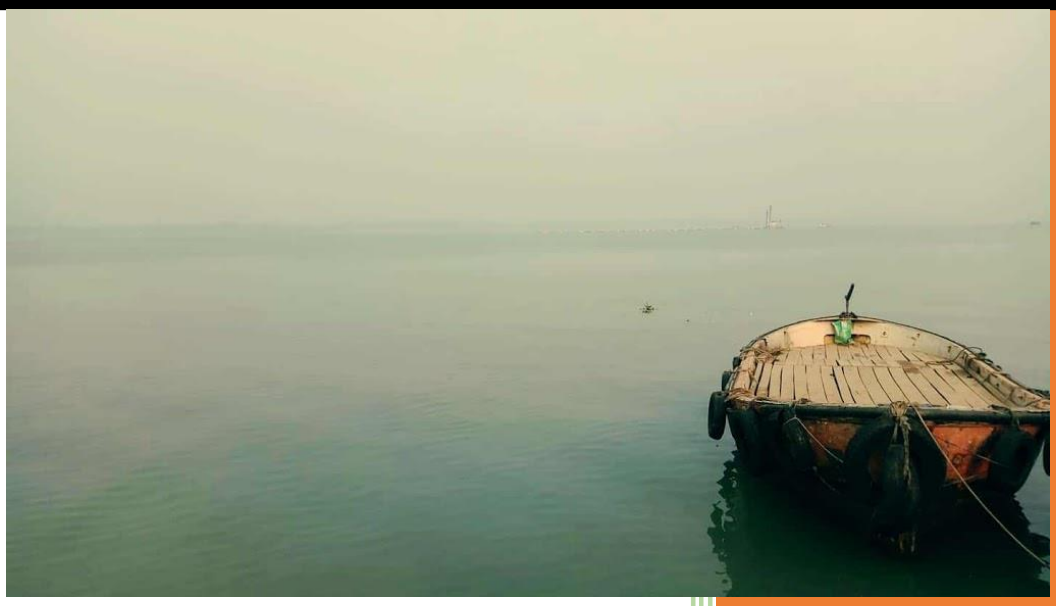
FINAL STUDY REPORT

2020

Analysis of Health Needs and Health System Response in the Coastal Districts of Bangladesh



Maternal and Child Health Division

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DISCLAIMER:

Views expressed in this report do not necessarily represent official views and policies of the Government of UK.

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LIST OF ABBREVIATIONS

ADD	: Action on Disability and Development
AFB	: Acid Fast Bacillus
AHI	: Assistant Health Inspectors
AIDS	: Acquired Immune Deficiency Syndrome
AMTSL	: Active Management of Third Stage of Labor
ANC	: Antenatal Care
ARI	: Acute Respiratory Infections
ART	: Antiretroviral therapy
BBS	: Bangladesh Bureau of Statistics
BCS	: Bangladesh Civil Service
BDT	: Bangladesh Taka
BHFS	: Bangladesh Health Facility Survey
BMI	: Body Mass Index
BP	: Blood Pressure
CC	: Community Clinic
CEmOC	: Comprehensive Emergency Obstetric Care
CHCP	: Community Healthcare Providers
COPD	: Chronic Obstructive Pulmonary Diseases
CS	: Civil Surgeon
C-Section	: Caesarean Section
DDAO	: District Disability Affairs Officer
DFID	: Department for International Development
DH	: District Hospital
DM	: District Manager
DOTS	: Direct Observation Treatment Short-course

DRRA : Disabled Rehabilitation and Research Association

ECD : Early Childhood Development

ECP : Emergency Contraceptive Pill

EHD : Essential Healthcare for the Disadvantaged

ENT : Ear Nose & Throat

EPI : Expanded Programme of Immunization

ERC : Ethical Review Committee

FC : Field Coordinator

FGD : Focus Group Discussion

FP : Family Planning

FHPs : Frontline Healthcare Providers

FPI : Family Planning Inspectors

FWA : Family Welfare Assistant

FWV : Family Welfare Visitor

HA : Health Assistants

HBB : Helping Baby's Breath

HH : Household

HI : Health Inspectors

HIV : Human Immunodeficiency Virus

HMIS : Health Management Information Systems

IDI : In-Depth Interviews

IEC : Information, Education and Communication

IMCI : Integrated Management of Childhood Illnesses

IMPAC : Integrated Management of Pregnancy and Childbirth

IQR : Interquartile Range

IRB : Institutional Review Board

IUD : Intrauterine Device

IYFC : Infant and Young Child Feeding

KII : Key Informant Interviews

KMC : Kangaroo Mother Care

LBW : Low Birth Weight

MBBS : Bachelor of Medicine, Bachelor of Surgery

MCHD : Maternal and Child Health Division

MCWC : Mother & Child Welfare Centers

MDR-TB : Multi-Drug-Resistant Tuberculosis

MIS : Management Information System

MO : Medical Officer

MoH&FW : Ministry of Health and Family Welfare

MT : Medical Technologists

MUAC : Mid-upper Arm Circumference

MWRA : Married Women of Reproductive Age

NCD : Non-Communicable Disease

NGO : Non-Governmental Organization

NVD : Normal Vaginal Delivery

PAC : Post Abortion Care

PNC : Postnatal Care

PPFP : Post-Partum Family Planning

PPS : Probability Proportional to Size

PWD : Person with Disability

PWoD : Person Without Disability

RAD : Rapid Assessment of Disability

REF. : Reference

RMO : Resident Medical Officer

RRC : Research Review Committee

SACMO : Sub-Assistant Community Medical Officers

STI : Sexually Transmitted Infection

SWO : Social Welfare Officers

TB : Tuberculosis

UC : Upazila Coordinator

UHC : Upazilla Health Complex

UH&FWC : Union Health and Family Welfare Center

UH&FPO : Upazila Health and Family Planning Officer

UnSC : Union Sub-Center

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The coastal areas of Bangladesh cover 19 districts[1], consist of 32% of the total land of the country, and holds 26% of the country's total population. Although more than 37 million people's livelihoods are sustained by the coastal areas, proportion of people living with poverty remains very high in these areas. Among the 19 coastal districts, 14 have poverty rates greater than the national average, and are mostly vulnerable in terms of insecurities regarding food, income, water, and health.

Accessing necessary healthcare remains a challenge for the people living in the coastal areas, particularly the marginalized and disabled. These areas suffer from a lack of appropriate health facilities and skilled healthcare providers. Existing healthcare services are limited, and inadequate to address the health needs of the inhabitants in these areas. The problem multiplies when we consider the needs of the disabled, which constitute 7% of the total population of the country. This particular group of disadvantaged people often face social exclusion in many aspects.

Exploring the health needs and health seeking behaviours of the disadvantaged people, including the disabled, in the coastal areas of Bangladesh is necessary. It is also important to understand the existing health system's response towards their health needs. Thus, this study was conducted in two coastal divisions of Bangladesh, Barishal and Khulna, to understand the health needs, health seeking behaviours of the population particularly the disadvantaged and disabled living in these areas, and existing health system's response towards their health needs.

OBJECTIVES

Overall objective of this study was to assess the health situation in the coastal districts of Bangladesh with a focus on understanding the context of health and healthcare systems in these areas in relation to the health needs of the disadvantaged (including people living with disability) people. The specific objectives were: i) to assess (a) the key health issues of the population living in the coastal districts, particularly the disadvantaged and disabled; and (b) the social, political and biological factors that are associated with these issues; ii) to understand (a) the health seeking behaviours of the people in the coastal districts, particularly the disadvantaged and disabled; and (b) health system response to the needs of this population; iii) to understand (a) the capacity of the existing health institutions (both formal and informal/ public and private) in the coastal districts to provide quality health care; and (b) the barriers to provide quality health care to this population; iv) to establish benchmark indicators which may be used to DFID's Essential Healthcare for the Disadvantaged in Bangladesh (EHD) Project's[2] impact and success during the project period.

[1]These coastal districts are: Bagerhat, Barguna, Barishal, Bhola, Chandpur, Chittagong, Cox's Bazar, Feni, Gopalganj, Jessore, Jhalokati, Khulna, Lakshmipur, Narail, Noakhali, Potuakhali, Pirojpur, Satkhira and Shariatpur.

[2] DFID Bangladesh's planned Essential Healthcare for the Disadvantaged in Bangladesh (EHD) project will operate in the underserved, remote coastal areas of Bangladesh. The project aims to contribute to improving health outcomes of the poor and disadvantaged people in these areas by increasing access to and use of affordable and good quality essential health services.

METHODOLOGY

This was a 14 months' study (10 May 2019 - 10 July 2020) and was conducted in the underserved remote, coastal areas in the south of Bangladesh. This involved 9 upazilas (rural) and 8 municipalities (urban) of selected six districts including Bagerhat, Shatkhira, Khulna, Barguna, Bhola and Patuakhali from Barishal and Khulna divisions.

The study utilized a **mixed method** design including i) household (HH) survey; ii) health facility survey; and iii) qualitative study that included focus group discussions (FGD), in-depth interviews (IDI) and key informant interviews (KII) to address the specific research objectives.

Household survey: total sample for the household survey in two divisions was 2,908; of which, 1,443 was people with disability (PWD), and 1,465 was people without disability (PWoD). The *Washington Group Short Set Disability Questions* were adopted and used to identify the PWD. Following disabilities[3] were identified in this study: i) Visual impairment; ii) Hearing impairment; iii) Speech difficulty; iv) Problem with general movement and self-care; and v) Problem with hand and finger use.

Health facility survey: total 55 health facilities including public (37-MCH, DH, UHC, MCWC, USC, UH&FWC, CC), private (9) and NGO (9) were surveyed. Among them, 28 was from Barishal and 27 from Khulna division. Proportion of urban and rural health facilities were 29 and 26 respectively. Bangladesh Health Facility Survey 2014 tool was adopted for health facility survey data collection.

Qualitative study: 12 males and 12 females PWD were purposively selected for IDIs from the sample list of quantitative survey. 12 FGDs were conducted, eight with male and female community people in rural and urban settings and four with frontline government healthcare providers. 11 KIIs with relevant key stakeholders including six from government settings and five from NGO settings were conducted. Separate guidelines for IDI, FGD, and KII were developed for qualitative data collection.

RESULTS

A. FINDINGS FROM HOUSEHOLD SURVEY

Listing of households: among the selected 74 clusters in Barishal and Khulna divisions, information on 155,388 members from 42,201 HHs was collected. Among them, 12,195 PWD was identified which gives an estimation of the disability rate as 7.85%.

Types of disabilities identified from household listing: in this study, disability was considered as impairment in any of the following - visual, hearing, speech, mobility, or hand and finger movement. Among the PWDs identified, visual disability contributes to the most (61.1%), followed by hearing disability (30.9%), speech disability (23.6%), mobility disability (12.4%), and disability in hand and finger movement (10.2%). Around 6% of the people had anyone of the disabilities, and less than 2% people had more than one disabilities.

[3] **Visual impairment**: no vision in any single eye or in both eyes, visual acuity not good even with lenses/glasses; **Hearing impairment**: loss of hearing capacity, or damaged or ineffective hearing abilities; **Speech difficulty**: loss of one's capacity to utter/pronounce meaningful vocabulary sounds, or damaged, partly or wholly or dysfunctional; **Problem with general movement and self-care**: problem to stand up from sitting position, standing for longer period (30 minutes), walking a short distance (100 meters); getting out of home by self; and **Problem with hand and finger use**: problem in picking up small objects or opening a container using hand or fingers.

Socio-demographic characteristics of the respondents: respondents were evenly distributed across Barishal and Khulna divisions (50.2% and 49.8% respectively). Around three-fourths of them were from rural areas while above one-fourth were from urban areas. More than half of the respondents were female (52.3%) and 47.6% were male. Among the PWDs, half (50.7%) represented 16-49 years' age group. However, 43% of the PWoDs were aged ≥ 61 years followed by 49-60 years (21.3%). One-fourth (23.5%) of the PWDs had no education compared to 44.1% of PWoDs. Both groups belonged to similar socio-economic status.

Prevalence of disabilities, and use of assisted device: one-third (32.8%) of the PWDs with visual impairment, one-tenth (11.6%) with hearing impairment, and one-fourth (25.6%) with mobility impairment reported about facing physical problem always for their disabilities. One-third (34.7%) of the PWDs with mobility impairment were using any assisted device followed by 27.1% with visual impairment, 4.8% with difficulty in hand movement, 2.5% with hearing impairment, and 1.6% with speech problem.

Healthcare seeking behavior in last 30 days: around 39.0% respondents from each group (PWDs, and PWoDs) sought care for any illness in the last 30 days, nearly 60.0% of which were from informal sector and the remaining from formal sectors (44.4% and 40.5% for PWoD and PWD respectively). However, public facilities were the least chosen option for both groups: PWoD (15.7%) and PWD (13.6%).

FP, ANC, and delivery care seeking among married women of reproductive age: women who used any FP method was higher among PWoD (75.3%) than PWD (65.7%). Any modern method use was 71.1% among PWoD and 59.3% among PWD. Among both group of women 87.0% had at least one ANC in the last one year; while about 58% had 4 or more ANC among those who had at least one ANC. Concerning delivery and newborn care, 59% of the women in both groups had skilled attendance at birth and 44% had at least one PNC visit in last one year.

Attitudes of people around the PWD: about half of the PWD did not face much problem and can participate in family decisions (47.6%), make own choices about day-to-day life (52.2%), make big decisions in life (49.9%), and were being valued by other people (44.7%). However, around 50.0% experienced problems in getting involved in the society because of the attitude of their surroundings, and around half considered themselves as a burden of the society. Around 90.0% of the PWD experienced more or less difficulties in accessing any information.

Experience of the PWD regarding their recent visit to healthcare providers: regarding experience of most recent visit to healthcare providers, 44.8% of the PWDs rated their waiting time as good, and more than one-third (37.4%) rated as bad/very bad. However, three-fourths (75.4%) of the PWDs had good impression with healthcare providers' explaining effort to them, and four-fifths (79.2%) were impressed with the facility to talk with the healthcare providers privately. Majority (84.0%) of the PWD were satisfied with the healthcare providers' behavior.

B. FINDINGS FROM HEALTH FACILITY SURVEY

Availability of basic client services: almost all government and NGO facilities (92.7%) and half (55.6%) of the private hospitals provided child curative care services. 79.6% of the government and NGO hospitals, and 22.2% of the private hospitals provided child growth monitoring services. Other available basic services included

child vaccination services (76.4%), modern FP method services (92.7%), and ANC services (98.2%). Normal vaginal delivery (NVD) services was available in around two-thirds of all the facilities (63.6%). Among all the facilities, 40.0% had all basic services with normal vaginal delivery, and 27.3% had all basic services without normal vaginal delivery. Community clinics and private hospitals had the lowest share (11.1%) in providing the latter two services.

Availability of basic equipment: following basic equipment were available in the facilities in both divisions: adult scale (92.7%), child scale (65.5%), infant scale (65.5%), stethoscope (96.4%), BP apparatus (96.4%) and thermometer (81.8%). Less than half of the facilities (45.5%) had light source, which was lowest in UH&FWCs (14.3%) and in community clinics (11.1%).

Availability of laboratory diagnostic facilities: 11.0% of the facilities performed all five basic diagnostic tests. Advanced laboratory diagnostic tests and equipment for diagnostic imaging were mostly available at medical college hospital, district hospitals, UHCs, NGO facilities, and private hospitals. Private hospitals were more likely to provide many of the advanced diagnostic tests than other facilities.

Availability of essential medicines: among all the essential medicines, amoxicillin was the most available (69.1%), and paracetamol oral suspension was the next. Other essential medicines including amitriptyline, captopril, glibenclamide, and simvastatin were least available (<10.0%).

Availability of FP and maternal health services: One-fifth (22.2%) of the NGO clinics offered permanent methods, which was much higher in the private hospitals (77.8%). Overall FP service provision was comparatively better in urban areas (100.0%) than that of the rural areas (76.9%). More facilities in Khulna division (44.4%) were offering caesarean section compared to the facilities in Barishal division (28.6%).

Readiness of health facilities to provide ANC services: Although individual readiness items were available at all facilities, only 3.6% of the facilities had all five items/tracer indicators including guidelines on ANC, blood pressure apparatus, hemoglobin test, urine protein test, and iron or folic acid tablets available as per WHO recommendations. No notable differences were observed among different indicators between Barishal and Khulna divisions or between urban and rural areas.

Readiness of health facilities to provide normal delivery services: one-fifth (20.0%) of the health facilities had a delivery pack, 47.0% had gloves, and 40.0% had an examination light. Around half of the facilities had a neonatal bag and mask, skin disinfectant and IV fluid with infusion set. Around one-third (29.0%) had a suction apparatus, while 44.0% had injectable uterotonic oxytocin. Overall, less than 2.0% of the facilities had all of the 12 items considered to be essential by WHO to provide BEmOC and CEmOC services.

Readiness of health facilities to provide child curative care services: only 5.5% of the facilities had availability of all specific tracer indicators including IMCI guideline, IMCI trained staff, equipment, and medicines indicated lacking in the systems approach to provide sick children's curative care.

C. FINDINGS FROM QUALITATIVE STUDY:

Findings from all three components of the qualitative study including IDIs, FGDs and KIIs are compiled together and the key findings are presented here following the specific objectives of the study.

- The government health facilities were poorly distributed and were difficult to reach. Poor road communication and transport was a major challenge to avail healthcare services of the people living in coastal areas.
- Shortage of health professionals in government health facilities and unwillingness of the providers to stay in remote areas. Lack of specialist doctors at community level government health facilities (e.g.CC, UH&FWC).
- Poor infrastructure of the government hospitals: scarcity of number of beds, lack of cleanliness, lack of drinking water supply, shortage of medicines, and inadequate essential equipment in government health facilities.
- Unavailability of providers in government health facilities during office hour. Spending of much time in private clinics/chambers and encouraged patients to visit them in private chambers.
- Unfriendly behaviour of healthcare providers of the government health facilities. They did not respond promptly and kindly when needed, particularly, during emergency or at night time.
- Few or no government hospitals and trained health professionals for PWD. PWDs and their families were unaware about the places for their need-based care.
- PWDs were neglected by the surroundings in the community and in the health facilities. No separate queue for them in the government health facilities. Infrastructure of the health facilities were not disability-friendly; no functional ramp or separate toilet facilities for the PWDs.
- Lack of community awareness regarding available services and benefits for PWDs. Unfairness in providing allowances and benefits to PWDs. Allowances and benefits sanctioned for PWDs were insufficient.

LIMITATIONS OF THE STUDY

This study has some limitations. We measured disability on the basis of subjective responses given by either the parents or HH heads or according to the respondents' own answers. This method of data collection might influence the final estimate because of the possibility of under- or overestimating. We did not calculate the sample size of this survey considering the women specific indicators. Therefore, our sample would not provide with the reliable estimates for these indicators. Any programmatic decisions based on these estimates would therefore not be appropriate.

CONCLUSIONS AND RECOMMENDATIONS

The health and livelihood patterns of the people living in the coastal areas, especially for the poor, is very much worsening as health care facilities and services are often incomplete, far away, and therefore, most difficult and costly to reach there. This is particularly challenging for the person with disabilities. People of these hard-to-reach and disaster-prone areas are being deprived of necessary health services due to lack of adequate and skilled human resources at the public facilities.

Findings from the study revealed that disability is an issue that has a profound effect not only on a family but on the society as a whole. The health care services do not include medical rehabilitation for people with disabilities, so they depend largely on informal providers. A minimum level of medical rehabilitation is available through NGOs, which are mostly concentrated in urban areas. Therefore, people with disabilities living in rural coastal areas have no other alternative than informal sector, often inappropriate or inadequate treatment. Considering these major issues, this study led to some recommendations:

Health system related:

- Ensure recruitment and appropriate deployment of human resources for the health facilities in the coastal areas and make health services responsive to the needs and demands of this population.
- Readiness of the health facilities at the coastal areas to provide basic and comprehensive health services were alarmingly low. Development of facility-specific contextualized tools and implement those through appropriate training and supportive supervision for maintaining minimum required quality of basic health care should be ensured.
- A proper regulatory mechanism should be vigilant to ensure accountability of the health facilities and healthcare providers in providing effective and quality health services. A concerted multi sectoral efforts by government institutions at all levels, the private sector, NGO sector, and the civil society is required to manage health system issues in coastal areas by capacity building, institutional strengthening, and facilitating implementation.

For people with disability (PWD):

- Development of programs and policies for mitigating the suffering of people with disabilities in all cross-sections of the society and bringing down the barriers to their integration into the society should be a priority. Effective measures should be taken to protect PWD and prevent their rejection by the society.
- Special facilities need to be created to help the PWD function as normally as possible. This could be done by creating social awareness, and by ensuring the PWD's access to health, education, and employment, and by providing them modern disability aids, and disability benefits or allowances, especially to those living in poverty.
- Medical facilities need to be improved tailored to the needs of disabled people, such as, the purchasing of modern medical equipment as well as training doctors, psychologists, physiotherapists, and medical staff in the treatment and care of different types of disabilities.
- The government disability programmes need to target poor households on a priority basis and initiative should be taken for setting up special community clinics or support groups for them. In order to improve services for PWD living in rural areas, it is necessary to establish facilities including transportation and also eliminate or subsidize health facility usage fees. Domiciliary healthcare services for PWDs can also be initiated by the government and/or NGOs according to an individual's assessed needs.
- To ensure that people with physical disability can move freely and work independently as much as possible, special facilities need to be created at hospitals, workplaces, marketplaces, offices, on public

transports, and even on the streets or pavements so that the environment is disability-friendly. For example, special ramps could be constructed for wheel chair access.

Natural disaster and infrastructure related:

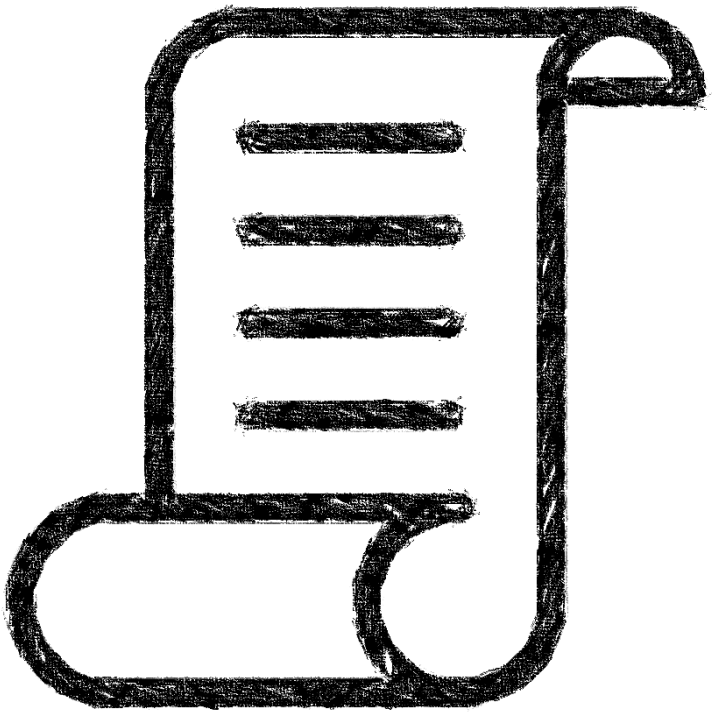
- A coastal planning policy and guidance for local government and input to adaptive engineering design of coastal infrastructure (e.g. roads, ports), and user-friendly shelter center should be developed.
- A system for climate sensitive disease surveillance system that comprises a set of climate sensitive disease/health indicators, including potential vulnerable populations (e.g. PWDs, aged, women and girls) needs to be established to enable local vulnerability assessments.

EHD project specific indicators related:

- Large proportion of people in coastal areas especially in its rural part sought healthcare from the informal providers. Promotional activities for motivating people (esp. rural people) for formal care seeking should be initiated.
- Proportion of women availing family planning services found relatively high in this population. For other women specific indicators, we recommend to conduct a more women-focused larger study using diverse data collection methods (similar to this small scale study) in order to understand the coverage of antenatal, delivery and postnatal care of women with and without disabilities in the coastal areas.
- Health facility assessment suggested there was a gap in HMIS training in the sampled facilities. Project should invest on the facilities to increase the number of facilities reporting to DHIS2 / HMIS to have quality data on service utilisation and delivery.
- Our analysis suggested, less than half of the sampled facilities had the guidelines on family planning, ANC and IMCI. These guidelines can give directions effectively to the health care providers and these are key to ensure quality of services. Therefore, programme can address this gap and build awareness regarding health guidelines in all the facilities in the coastal areas. This will help the facilities in functioning as per the government guidelines.
- The global COVID-19 pandemic has impacted 'business as usual' operations in many settings including Bangladesh. The problems set out in the EHD programme are still relevant, solutions are still needed and that progress towards developing them can still be made. Therefore, potential adaptations to the planned approach in response to the current context need to be considered.

The study employed a mixed method approach, the qualitative component of which included different types of methods for data triangulation to maintain intense data. However, the useful information gathered from this study could work on establishing an effective programme for ensuring quality health care for the people living in coastal areas especially for the people with disabilities. Inability to provide adequate healthcare to this vulnerable population would undermine the realization of the Sustainable Development Goals (SDGs) from the apprehension of 'Leave No One Behind'.

INTRODUCTION & OBJECTIVES



INTRODUCTION

Bangladesh is particularly vulnerable due to a combination of poverty, high population density and low-lying geography. This vulnerability increases in the coastal area because of the knowledge gaps on the diversity and dynamics of its physical geography [1].

The coastal areas of Bangladesh cover 19 districts[4], consist of 32% of the total land of the country, facing or near the Bay of Bengal, and holds 26% of the country's total population [2]. Although more than 37 million people's livelihoods are sustained by the coastal areas, proportion of people living with poverty remains very high in these areas. Among the 19 coastal districts, 14 have poverty rates greater than the national average, and are mostly vulnerable in terms of insecurities regarding food, income, water, and health – particularly the disabled, women and girls [3].

The people living in these areas are confronting inescapable challenges in adapting to the effects of climate change with rising sea levels and salinity. The prevalence of diarrhoea, skin diseases, dengue fever, hepatitis and other infectious diseases, risk of injuries and mental health issues have increased in the coastal areas due to climate change [4]. Urban coastal areas are also affected mostly due to lack of safe sanitation. The pollution in the urban water bodies can increase the risk of health hazards [5]. However, very little is known about the associations of the environmental particularities of coastal areas and health of the disadvantaged people of those areas [6].

Accessing necessary healthcare remains a challenge for the people living in the coastal areas of Bangladesh, particularly the marginalized and disabled [7]. The coastal areas suffer from a lack of appropriate health facilities and skilled healthcare providers. Existing healthcare services are limited, and inadequate to address the health needs of the inhabitants in these areas. The problem multiplies when we consider the needs of the disabled.

Nearly 7% of the people of Bangladesh have some form of disability [8]. This particular group of disadvantaged people often face social exclusion in many aspects. According to the 2001 Disability Welfare Act, people with visual impairment, physical disabilities, hearing impairment, speech impairment, mental disability, multiple disabilities, and autistic disabilities constitute the disabled population [9]. The disabled people often are incapable to compete in the mainstream economy because of their deprivation from basic needs. Consequently, these people are predominantly poor and marginalized in the society.

It is thus critical that the health system offers support and services that empower the disabled people to increase their self-efficacy. It is also crucial to facilitate easy access to health care facilities and ensure quality of care with a focus on the disadvantaged and the disabled.

[4] These coastal districts are: Bagerhat, Barguna, Barishal, Bhola, Chandpur, Chittagong, Cox's Bazar, Feni, Gopalganj, Jessore, Jhalokati, Khulna, Lakshmipur, Narail, Noakhali, Potuakhali, Pirojpur, Satkhira and Shariatpur.

Exploring the health needs and health seeking behaviours of the disadvantaged people, including the disabled, in the coastal areas of Bangladesh is necessary. It is also important to understand the existing health system's response towards their health needs. Thus, this mixed methods study was conducted in two coastal divisions of Bangladesh, Barishal and Khulna, and consisted of: i) a cross sectional household survey; ii) an assessment of the health facilities; and iii) a qualitative study to contextualize the survey data to understand the health needs, health seeking behaviours of the population (particularly the disadvantaged and disabled) in the coastal areas of Bangladesh, and existing health system's response towards their health needs.

OBJECTIVES

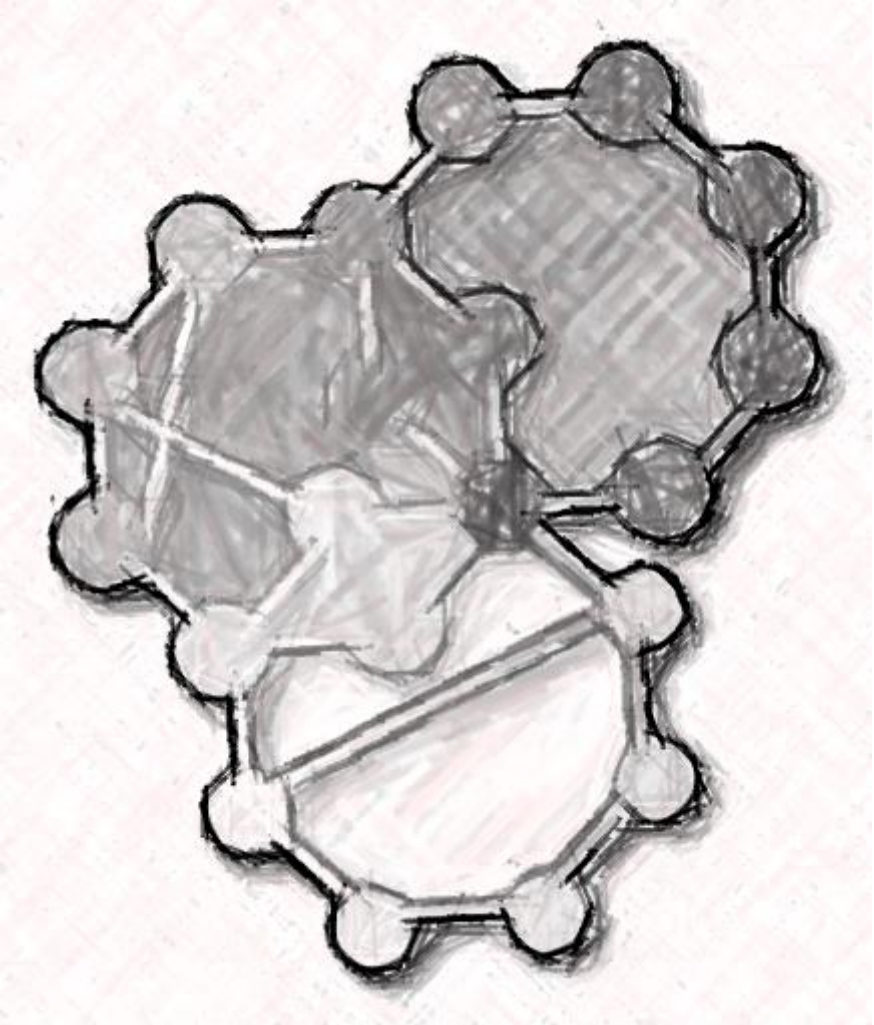
Overall objective of this study was to assess the health situation in the coastal districts of Bangladesh with a focus on understanding the context of health and healthcare systems in these areas in relation to the health needs of the disadvantaged (including people living with disability) people.

The specific objectives were:

1. To assess (a) the key health issues of the population living in the coastal districts, particularly the disadvantaged and disabled; and (b) the social, political and biological factors that are associated with these issues.
2. To understand (a) the health seeking behaviours of the people in the coastal districts, particularly the disadvantaged and disabled; and (b) health system response to the needs of this population.
3. To understand (a) the capacity of the existing health institutions (both formal and informal/ public and private) in the coastal districts to provide quality health care; and (b) the barriers to provide quality health care to this population.
4. To establish benchmark indicators which may be used to DFID's Essential Healthcare for the Disadvantaged in Bangladesh (EHD) Project's[5] impact and success during the project period.

[5] DFID Bangladesh's planned Essential Healthcare for the Disadvantaged in Bangladesh (EHD) project will operate in the underserved, remote coastal areas of Bangladesh. The project aims to contribute to improving health outcomes of the poor and disadvantaged people in these areas by increasing access to and use of affordable and good quality essential health services.

METHODOLOGY

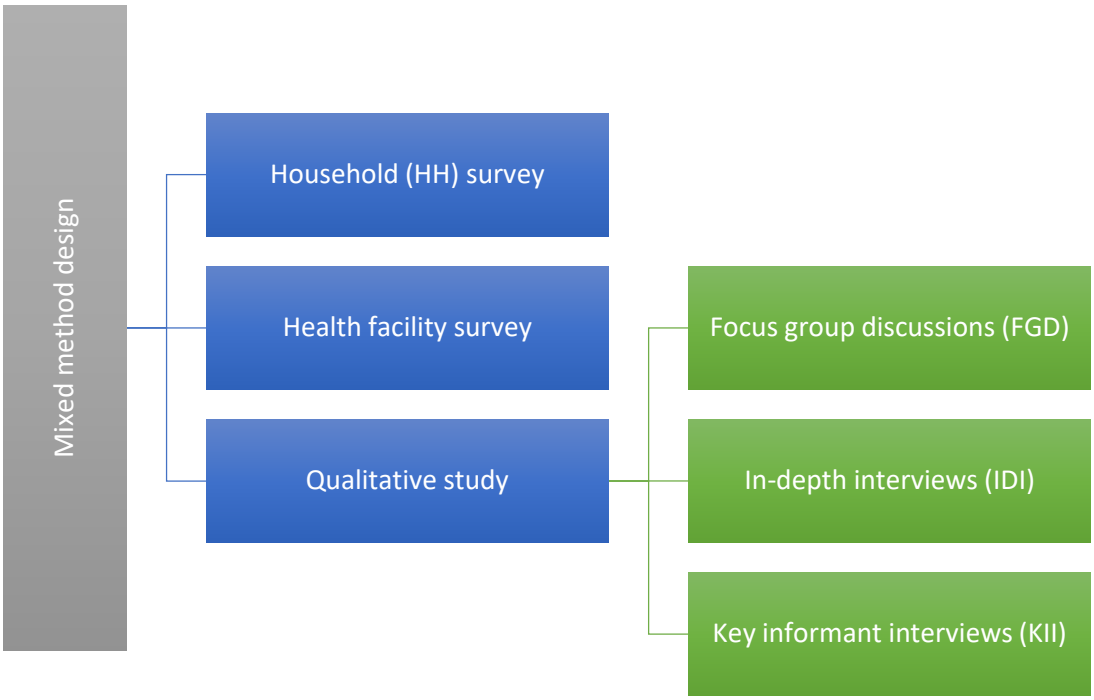


METHODOLOGY

STUDY DESIGN:

The study utilized a **mixed method** design including i) household survey; ii) health facility survey; and iii) qualitative study that included focus group discussions (FGD), in-depth interviews (IDI) and key informant interviews (KII) to address the specific research objectives (Figure 1).

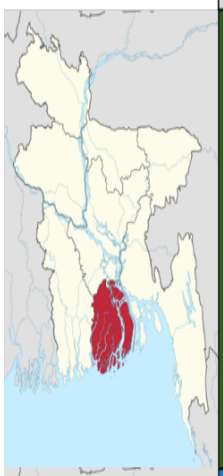
Figure 1: Study Design



STUDY AREAS:

The study was conducted in the underserved remote, coastal areas in the south of Bangladesh. This involved 9 upazilas (rural) and 8 municipalities (urban) of selected 6 coastal districts of Barishal and Khulna divisions. Site selection for this study was based on the implementation area of the planned EHD project, so that the evidence generated are most relevant for identifying potential implementation strategies of the EHD project and the most appropriate benchmark indicators are estimated. The selected sites are given in the Figure below (Figure 2):

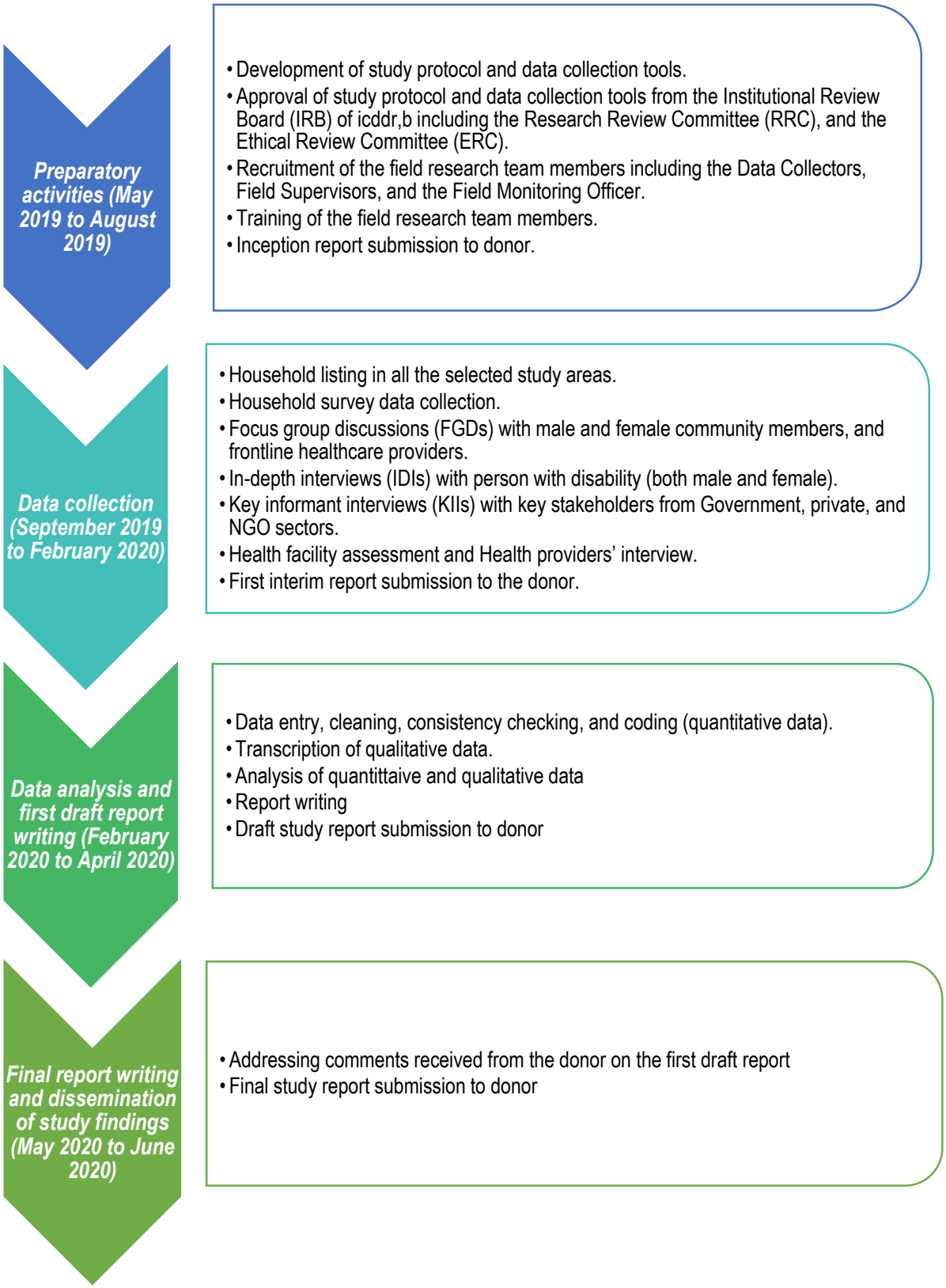
Figure 2: Selected Study Sites in Barishal and Khulna Divisions, 2019-2020



Division	District	Rural (Upazila)	Urban (Municipality)
BARISAL	Barguna	-	Barguna Municipality
		Patharghata	-
	Bhola	-	Bhola Municipality
		Char Fasson	-
			Char Fasson
		Manpura	-
	Patuakhali	Galachipa	-
		Kalapara	-
		-	Patuakhali Municiality
KHULNA	Bagerhat	-	Bagerhat Municipality
		-	Mongla Municipality
		Morrelganj	-
		-	Morrelganj Municipality
	Khulna	Dacope	-
		Koyra	-
	Satkhira	Shyamnagar	-
		-	Satkhira Municipality
Total	6	9	8

STUDY DURATION:

Duration of the study was 14 months, from 10 May 2019 to 10 July 2020. The study was completed in different phases as described in the flowchart below:



DATA COLLECTION METHODS AND TOOLS:

A. HOUSEHOLD SURVEY

To address specific objectives #1, #2 (2a and aspects of 2b) and #4, data were collected from a quantitative survey to understand the health situation of the disadvantaged people including the person with disability.

To conduct the survey, a team of seven ***Data Collectors*** with one ***Field Supervisor*** were employed in each division. In total, 14 data collectors and two Field Supervisors were deployed in two divisions. One ***Field Monitoring Officer*** simultaneously monitored data collection activities in both divisions.

The survey employed a stratified multi-stage sampling. Sample strata was formed by the six districts from the two divisions, Barishal and Khulna. The districts were: Bagerhat, Shatkhira, Khulna, Barguna, Bhola and Patuakhali. The sample was selected separately from each district proportionately to their population size. Different stages of sampling are described below and shown in Figure 3:

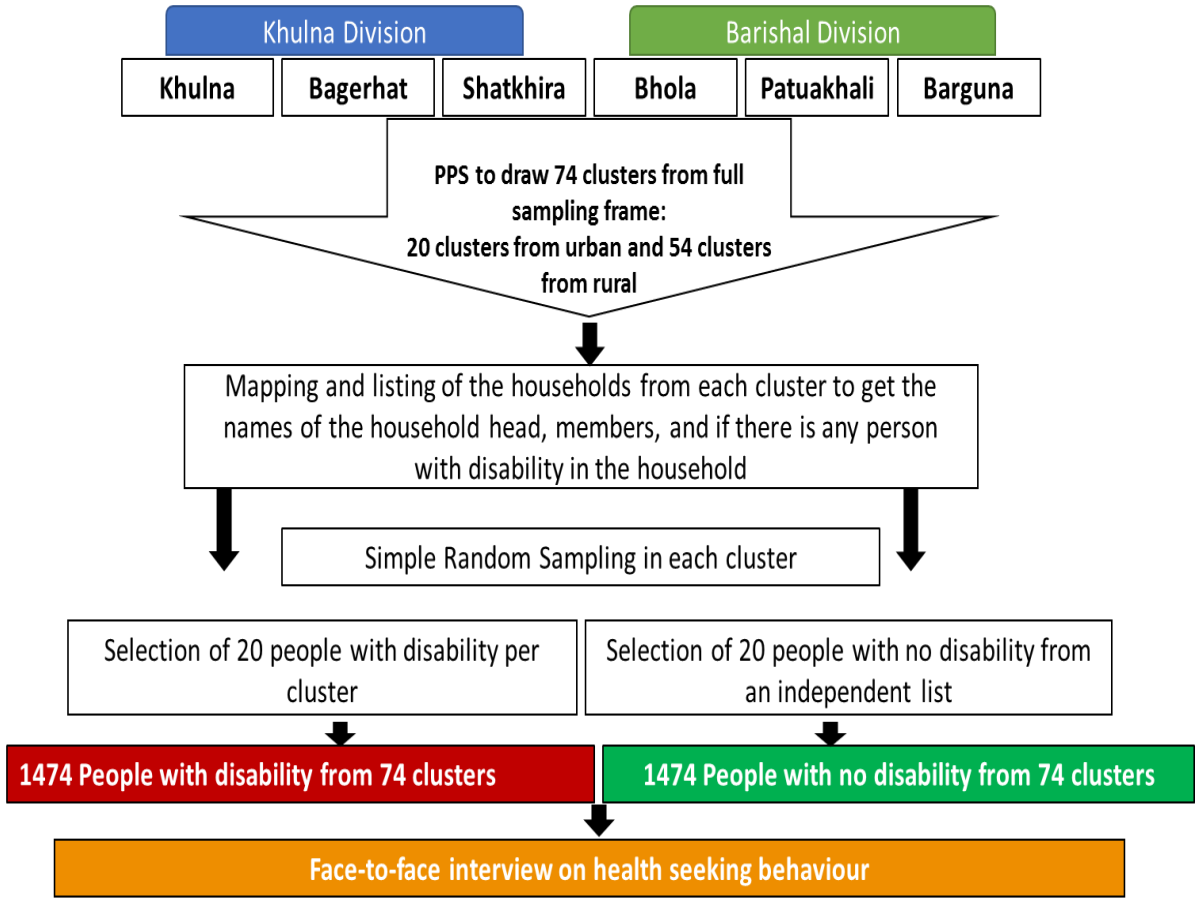
Stage I: The first stage of sampling involved selection of clusters. A predetermined number of clusters was selected from each stratum by applying the Probability Proportional to Size (PPS) sampling method. In general, clusters were villages from the BBS 2011 Census list. In total, 74 clusters were selected to achieve the required sample size. Our aim was to have clusters of 300-900 households. This involved combination of neighbouring smaller villages or segmentation of larger villages.

Stage II: The second stage of sampling involved selection of households. Within each selected cluster, a household listing was completed to provide a sampling frame for selection of households. During the listing, enumerators did a short screening of disability and collected the household number, name of the household head, detailed address, milestone, and contact information, and disability information of any of the family member of that household. During conducting the main interview, disability status of any of the family member was reconfirmed using the detailed questionnaire.

Stage III: After completing listing, an independent programmer did random sampling from the data stored in the server and selected 20 persons with disability (PWD) and 20 persons without disability (PWoD) from each cluster. The list of sample selected from each cluster was regularly sent to the Field Monitoring Officer, who then distributed the work to the respective Field Supervisors to collect data by the Data Collectors.

Stage IV: Household listing and survey data were collected using Samsung Galaxy Tab. Collected data were synced on the same day through a central server controlled by a dedicated data management team at Maternal and Child Health Division (MCHD), icddr,b, Dhaka.

Figure 3: Sampling Strategy Flow Chart, 2019-2020



Information of all family members of the selected households was collected from an individual respondent using a structured questionnaire. Regarding the respondent to be interviewed from each household, priority was given to ever married women from the selected households. In absence of them, any of the male or female senior family members who could provide detailed information of all the members of the family was selected for the interview.

Survey questionnaire included information on sociodemographic information, hygiene practices, reproduction, common health issues, and health care seeking behaviour of that family/household. In addition, information on health care seeking of the PWDs was collected from the households with PWDs. The questionnaire on health care seeking behaviour was adapted from the existing modules [10].

To measure household socioeconomic status, data were collected on the possession of various durable goods at the household level. These variables were taken into consideration for generating an asset index as a measure of socioeconomic status. In recent years, these durable goods have been used in developing a proxy measure for economic status from Demographic and Health Survey data. A wealth index is constructed from the household asset variables, using principal component analysis. Each individual in the sample were assigned an asset score and were placed in a wealth quintile.

Definition of Persons with Disability (PWD)

In this study, the *Washington Group Short Set Disability Questions* [11] were adopted and used to identify the person with disability (PWD). PWDs were defined as those who were physically disabled either congenitally or as a result of disease or being a victim of accident for any other reasons, and became physically incapacitated or imbalanced as a result of such disabled-ness, either partially or fully, and is unable to lead a normal life [12].

We identified following disabilities in this study: i) **Visual impairment (seeing/vision problem)**: persons with visual impairment were classified as: no vision in any single eye, no vision in both eyes, visual acuity not good even with lenses/glasses; ii) **Hearing impairment**: persons with a hearing impairment were classified as: loss of hearing capacity, or damaged or ineffective hearing abilities; iii) **Speech difficulty**: persons with a speech impairment were classified as: loss of one's capacity to utter/pronounce meaningful vocabulary sounds, or damaged, partly or wholly or dysfunctional iv) **Problem with general movement and self-care**: persons with problem to stand up from sitting down position, standing for longer period like 30 minutes, problem with walking a short distance such as a 100 metres; problem with getting out of home by self; and v) **Problem with hand and finger use**: persons with picking up small objects or opening a container with his/her hand or fingers [12, 13].

Based on the responses from the PWDs collected during the survey, following categorization was done for this study on the extent of reported difficulties faced by the PWDs:

- *Always problem:* PWDs who could not move and perform any work normally most of the time and faced difficulties in seeing, hearing, speaking, moving the hand and finger which hampered their regular activities greatly
- *Problem in general:* PWDs who could not perform like a person without disability, but could do most of their works with the help of any aid. For example – having cataracts and having problem with near and/or distant vision, inability to speak clearly, not being able to cut own fingernails, toenails etc.
- *Sometimes problem:* PWDs who could move and perform any work well most of the time with the help of any aid but sometimes faced difficulties in seeing, hearing, speaking, moving the hand and finger which hampered their regular activities.
- *Little problem:* PWDs who almost could perform like a person without disability, could do most of their works and faced very little difficulties in seeing, hearing, speaking, moving the hand and finger.
- *None/No problem:* PWDs who could move and perform any work very well and never faced difficulties in seeing, hearing, speaking, moving the hand and finger despite their disability and they felt their regular activities was not hampered at all.

B. HEALTH FACILITY SURVEY

To address objective #3, #4 (and aspects of 2b), a detailed health facility mapping was conducted in the selected study sites using Bangladesh Bureau of Statistics (BBS) settlement maps. After mapping, 74 health facilities (of different types and levels) was selected for assessment. The health facility survey was carried out immediately after completion of the household survey data collection.

'Bangladesh Health Facility Survey 2014' tool was adopted for health facility survey data collection [14]. The health facility survey data ('Inventory Questionnaire' section) was used to determine the programme readiness to deliver healthcare services to the disadvantaged population including the disabled in the coastal areas and the health systems response to their needs. The health facility survey also assessed quality of care provided in the health facilities and barriers to provide quality care by the service providers.

Health facility survey included information on human resources, necessary equipment and commodities, logistics, supplies and overall conditions of the health facilities, IEC materials, monitoring and supervision systems, and protocols and guidelines that facilitate high quality health care services in the facilities.

Updated lists of health facilities were collected from the selected districts' Civil Surgeon (CS) office and district family planning offices. These lists were sent to the programmer assigned for this project who then randomly selected one Union Health and Family Welfare Center (UH&FWC), one Community Clinic (CC), one Union Sub-Center (UNSC), one private clinic and one NGO clinic from each sub-district. While all the Medical College Hospitals, District Hospitals, Mother & Child Welfare Centers (MCWC), and Upazila Health Complexes (UHC) from the selected areas were included in the survey.

For the 'Health Providers Interview Questionnaire' section, one representative, preferably Resident Medical Officer (RMO) or Health Facility Manager from each selected health facility was interviewed. This section covered health providers' education and experience, general training, and opinion on working conditions in the respective facility.

The 'Provider Listing Form' of the health facility survey questionnaire was filled up with the help of a MIS person or the Statistician or the Facility Manager who seemed most appropriate or most familiar to provide with the information. This section covered listing of all the health care providers' available on the day of the survey along with their area of work/job description.

C. QUALITATIVE STUDY

The qualitative component of the study was carried out to contextualize the survey data and to understand the health needs, and health seeking behaviours of the disadvantaged people in coastal areas, in particular the person with disabilities, and the existing health system's response towards their health needs.

To address an aspect of objective #3, Focus Group Discussions (FGDs) with beneficiaries (male and female community members) were carried out to analyse the effect of contextual influences on their health care seeking and related outcomes. FGD with frontline healthcare providers were also conducted to map the plurality of health service provision and to understand the quality of care delivered to the population in the coastal areas.

To address objective 2, in-depth interviews (IDIs) were conducted with person with disability (both male and female) that helped to understand the particularities of their health seeking behaviour.

In addition, Key Informant Interviews (KII) with relevant key stakeholders from Government, private, and NGO sectors were carried out to fill the gaps in information. All qualitative interviews were conducted using specific guidelines for getting findings under specific indicators.

Out of the six (6) districts of Khulna and Barishal division where the survey was conducted, four (4) districts including Barguna, Patuakhali, Bagerhat and Satkhira were purposively selected for qualitative data collection (Table 1). From each district, one (1) rural upazila and one (1) urban municipality were selected to achieve variation in qualitative information.

Table 1: Sites for Qualitative Study in Barishal and Khulna Divisions, 2019-2020

Division	District	Rural (Upazila)	Urban (Municipality)
Barishal	Barguna	Patharghata	Barguna Municipality
	Patuakhali	Galachipa	Patuakhali Municipality
Khulna	Bagerhat	Morrelganj	Morrelganj Municipality
	Satkhira	Shyamnagar	Satkhira Municipality
Total	**4**	**4**	**4**

Field team for the qualitative study consisted of two Research Officers (RO) with Anthropology background as well as years of experience in qualitative data collection. They were trained and supervised by a senior and experienced Anthropologist.

DATA MANAGEMENT AND ANALYSIS

QUANTITATIVE

There were two phases of data collection for the household survey:

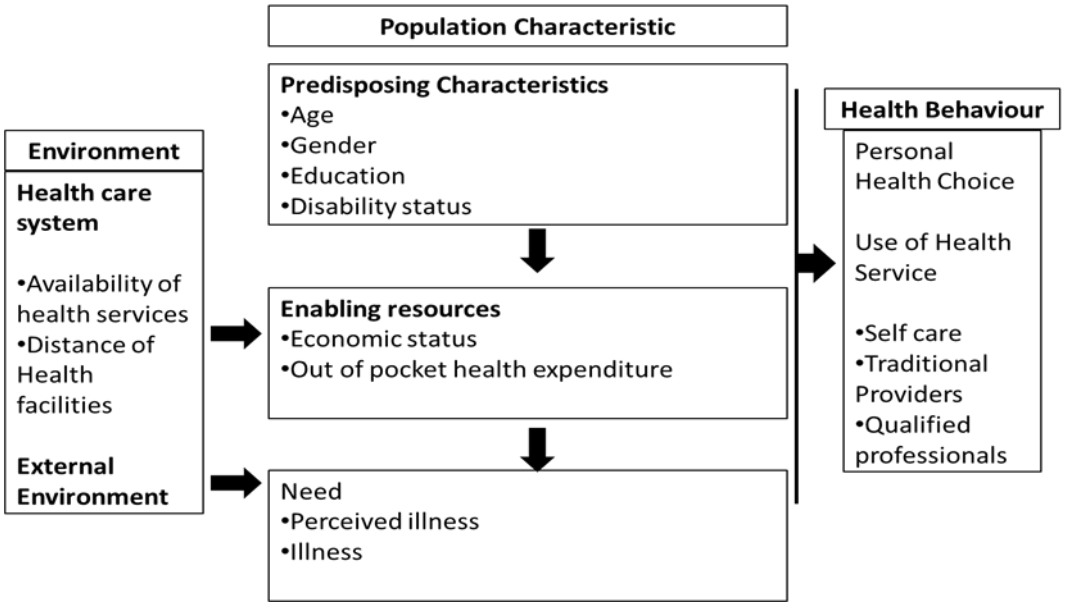
- Phase 1: household listing from all the selected clusters
- Phase 2: administration of the structured questionnaire to the selected samples covering disability and health seeking behaviour related questions.

Household survey data were collected electronically, therefore, the data were automatically stored in the server. The programming syntax files were retained so that analytical proceedings can directly produce (re-produce) the output.

The health facility survey data were collected in hard copies and then were entered separately by a data entry person. The quantitative data were managed and analysed in Stata 14.0 by a professional data management team at icddr,b.

Adapted from the behaviour change model by Andersen (Figure 4) [15], pathway analysis was conducted to understand the key factors influencing health seeking behaviour of the disadvantaged people including the person with disability living in the coastal areas.

Figure 4: Andersen's Model for Health Seeking Behaviour



QUALITATIVE

All Focus Group Discussions (FGDs), In-depth Interviews (IDIs), and Key Informants Interviews (KIIs) were digitally recorded after taking consent from the participants and then transcribed in local language - Bangla. Transcripts were randomly checked against audio recording to ensure quality of transcription. Significant

statements and phrases were extracted from each transcript. We applied an inductive coding procedure where themes were derived empirically induced from the data related to the research questions. Themes were triangulated using data collected through various qualitative methods.

ETHICAL CONSIDERATIONS

The study received ethical approval from the Institutional Review Board (IRB) of icddr,b that includes the Research Review Committee (RRC) and the Ethical Review Committee (ERC). Written informed consent was obtained from each participating respondent. The consent process involved clearly explaining the purpose of the study, the type of information to be collected, the risks and benefits of participating in the study, the mechanisms for maintaining confidentiality of the information, respondents' rights of voluntary participation and withdrawal, and sources of additional study-related information.

The consent forms were read out aloud by interviewers whereupon the respondents were asked if they agreed to participate in the study. Special care was taken to obtain voluntary and fully informed consent in all cases. Participation in the study was completely voluntary; respondents were not provided with any inducements or incentives for participating in the study.

RESULTS

HOUSEHOLD SURVEY

To conduct the household survey, 74 clusters were covered for listing the population from the selected study areas of Barishal and Khulna divisions. In total, 48,437 households were visited, out of which 42,201 households were listed. Remaining 4,236 households could not be listed due to absence of any respondent at the time of visit. Information of a total of 155,388 household members were recorded from the finally listed households. Therefore, average population per household is calculated as 3.68. Among the total population covered, 12,195 persons with disability were identified which gives an estimation of the person with disability rate as 7.85% (Table 2).

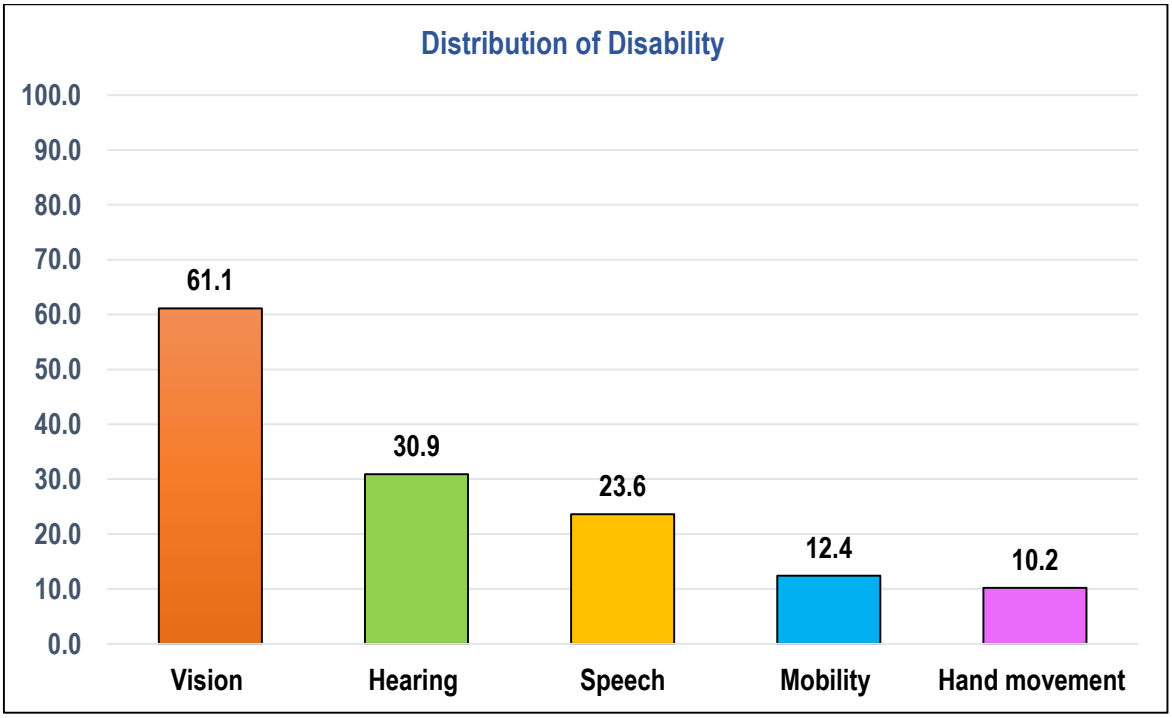
Table 2: Listing Information from the Household Survey in Barishal and Khulna Divisions, 2019-2020

Listing variables	Value
Cluster completed	74
Household visited	48,437
Household listed	42,201
Population covered by listing	155,388
Average household size	3.68
Number of persons with disability identified	12,195
Disability (%)	7.85 (%)

I. Types of Disabilities identified from household listing

Among the 12,195 persons with disability identified, visual disability contributes to the most (61.1%), followed by hearing disability (30.9%), speech disability (23.6%), mobility disability (12.4%), and disability in hand movement (10.2%) (Figure 5).

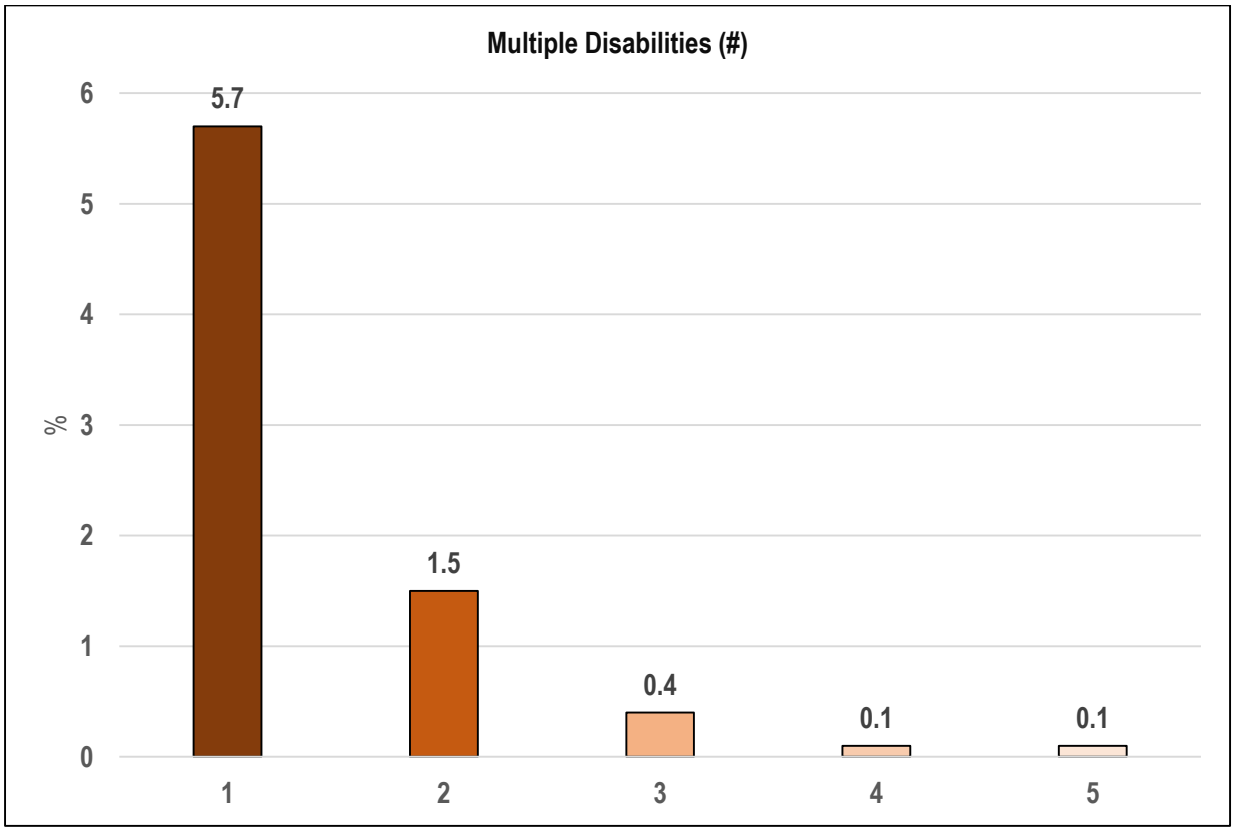
Figure 5: Types of Disabilities Identified During Household Listing in Barishal and Khulna Divisions, 2019-2020



II. Types of people with multiple disabilities

Percentage of people with multiple disabilities was also assessed from the household listing. Findings from the current study showed that around 6% of the listed people had anyone of the disabilities. However, less than 2% people had multiple disabilities (Figure 6).

Figure 6: Distribution of Respondents with Multiple Disabilities in Barishal and Khulna Divisions, 2019-2020



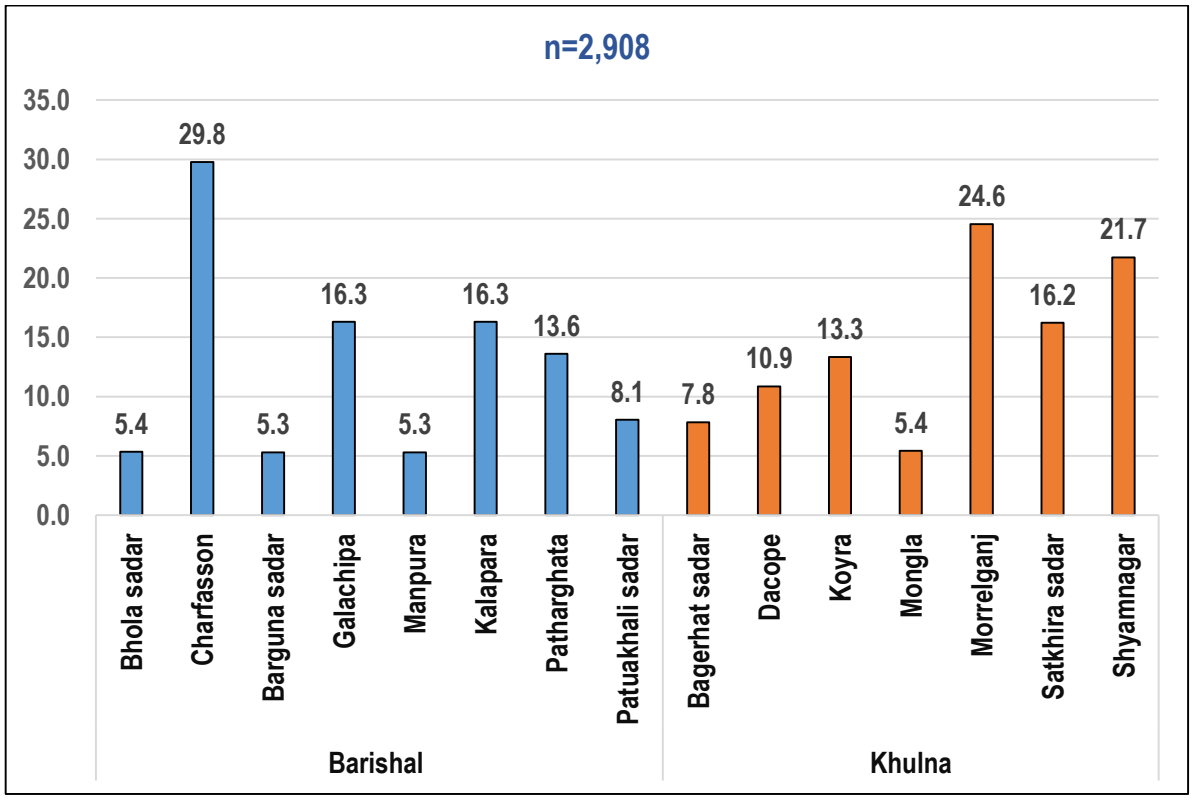
III. Sample distribution by sub-districts in Barishal and Khulna divisions

Quantitative:

The Figure below (Figure 7) presents distribution of 2,908 sample by the sub-districts of Barishal and Khulna divisions presenting 1,454 sample in each area.

In Barishal division, highest percentage of sample was selected from Charfassion upazila (29.7), followed by Galachipa and Kalapara (16.3% each), Patharghata (13.6%), Patuakhali Sadar (8.1%), Bhola Sadar(5.4%), and Barguna Sadar and Monpura (5.3% each). In Khulna division, sampling distribution was as follows: highest was in Morrelganj (24.6%), followed by Shyamnagar (21.7%), Satkhira Sadar (16.2%), Koyra (13.3%), Dacope (10.9%), Bagerhat Sadar (7.8%), and Mongla (5.4%) (Figure 7).

Figure 7: Sample Distribution of Household Survey by Sub-Districts in Barishal and Khulna Divisions, 2019-2020



Qualitative:

In-depth Interviews (IDIs)

A total of 24 in-depth interviews were conducted that helped to understand the particularities of the health seeking behaviour of the 'Persons with Disabilities (PWD)'. To catch highest variation, we conducted six (6) IDIs with female PWDs and six (6) IDIs with male PWDs in rural settings. Similarly, we conducted another six (6) IDIs with female PWDs and six (6) IDIs with male PWDs in urban settings. Samples of IDIs were purposively selected from the sample list of quantitative survey which was conducted before the qualitative study.

Focus Group Discussions (FGDs)

Four (4) focus group discussions (FGDs) with beneficiaries were conducted to analyze the effect of contextual influences on health care seeking and related outcomes.

Two (2) FGDs with frontline healthcare providers working in the selected health facilities were also conducted to map the plurality of health service provision and to understand the quality of care delivered to the population in the coastal areas. In this study, we named them 'Frontline Healthcare Providers' (FHPs) those were providing services to the community people directly under the government healthcare system.

Key Informant Interviews (KIIs)

Key Informant Interviews (KIIs) with 11 relevant key stakeholders were carried out to fill the gaps in information. We chose six (6) key informants from the government settings and five (5) from the NGO settings. In this study, by the 'Stakeholder' we are referring to the higher level officials from government healthcare system and senior level officials from non-governmental organizations (NGOs).

The Table below (Table 3) shows the distribution of samples for the focus group discussions (FGDs), in-depth interviews (IDIs), and key-informant interviews (KIIs) from Barishal and Khulna divisions.

Several significant themes emerged from our analyses, revealing the need regarding health care. We have illustrated the emergent themes with exemplary quotations. Findings from all three components of the qualitative study including FGDs, IDIs, and KIIs are compiled together and presented here following the specific objectives of the study.

Table 3: Samples Selected for the Qualitative Study in Barishal and Khulna Divisions, 2019-2020

Methods	Participants	Indicators	Samples				Total
			Barishal		Khulna		
			Urban	Rural	Urban	Rural	
In-depth Interviews (IDIs)	Person with disability (male)	- Specific health needs of the person with disabilities - Perception on accessibility to the health facilities - Existing health care facilities they could avail - Barriers to access to health care for being 'Person with disability'	3	3	3	3	24
	Person with disability (female)		3	3	3	3	
Focus Group Discussions (FGDs)	Community members (male)	- Overall perception of the community on their health needs - Accessibility to health facilities - Client satisfaction from the existing health facilities - Barriers to access to healthcare	1	1	1	1	12
	Community members (female)		1	1	1	1	
	Frontline healthcare providers (both male and female)	- Understanding the quality of care delivered to the population - Barriers to provide adequate health services in the coastal areas - Job satisfaction	1	1	1	1	
Key Informant Interviews (KIIs)	Government Key Stakeholders	- Perception of the experts on the health needs of the disadvantaged people including the 'Person with disability' in the coastal areas - Referral linkages	3		3		11
	NGO Key Stakeholders		3		2*		
						Total	**47**

* Missing sample due to absence of required number of NGOs providing healthcare services to PWDs as well as data saturation was already reached.

IV. Socio-demographic characteristics of the respondents participated in the household survey

Around three-fourths of the respondents were from rural areas while above one-fourth were from urban areas. More than half of the respondents were female (52.3%) and 47.6% were male. Among the respondents with disability (PWD), half (50.7%) represented between 16-49 years' age group. However, four in ten 'Person without disability' (PWoD) (43%) were aged ≥ 61 years followed by 49-60 years (21.3%). One-fourth (23.5%) of the PWDs had no education (never attended school/madrasha) compared to 44.1 percent PWoD. Both the groups (PWD and PWoD) belonged to similar socio-economic status. The respondents were evenly distributed across the two geographic divisions – Barishal and Khulna (50.2% and 49.8% respectively) (Table 4).

Table 4: Socio-Demographic Characteristics of Household Survey Respondents' in Barishal and Khulna Divisions, 2019-2020

	WEIGHTED						UNWEIGHTED					
	Person without disability		Person with disability		Total weighted		Person without disability		Person with disability		Total unweighted	
	n	%	n	%	N	%	n	%	n	%	N	%
All (%)	2,723	93.1	202	6.9	2,925	100.0	1,464	50.0	1,444	50.0	2,908	100.0
Location												
Urban	729	26.8	54	26.9	783.4	26.8	392	26.8	388	26.9	780	26.8
Rural	1994	73.2	148	73.1	2,142	73.2	1,072	73.2	1,056	73.1	2128	73.2
Sex												
Male	1,302	47.8	92	45.4	1,394	47.6	700	47.8	655	45.4	1,355	46.6
Female	1,419	52.1	111	54.6	1,530	52.3	763	52.1	789	54.6	1,552	53.4
Third gender	2	0.1	0	0.0	2	0.1	1	0.1	0	0.0	1	0.0

Age in years												
0-5	326	12	6	3	332	11.3	175	12	44	3	219	7.5
6-15	510	18.7	12	5.7	521	17.8	274	18.7	83	5.7	357	12.3
16-30	698	25.6	18	9.1	716	24.5	375	25.6	131	9.1	506	17.4
30-49	683	25.1	36	17.9	719	24.6	367	25.1	258	17.9	625	21.5
49-60	324	11.9	43	21.3	367	12.5	174	11.9	307	21.3	481	16.5
61 or more	184	6.8	87	43.0	271	9.3	99	6.8	621	43.0	720	24.8
Education												
Yes	2,083	76.5	113	55.9	2,196	75.1	1,120	76.5	807	55.9	1,927	66.3
No	640	23.5	89	44.1	729	24.9	344	23.5	637	44.1	981	33.7
Wealth quintile												
Lowest	506	18.6	43	21.5	549	18.8	272	18.6	310	21.5	582	20.0
Lower	577	21.2	49	24.0	625	21.4	310	21.2	347	24.0	657	22.6
Middle	513	18.9	32	15.9	546	18.7	276	18.9	230	15.9	506	17.4
Higher	538	19.7	41	20.3	579	19.8	289	19.7	293	20.3	582	20.0
Highest	590	21.7	37	18.3	627	21.4	317	21.7	264	18.3	581	20.0
Division												
Barishal	1,367	50.2	101	49.8	1,468	50.2	735	50.2	719	49.8	1,454	50.0
Khulna	1,356	49.8	102	50.2	1,457	49.8	729	49.8	725	50.2	1,454	50.0

V. Socio-demographic characteristics of the respondents participated in the qualitative study

In-depth interviews (IDIs)

Out of the 24 IDIs with PWDs, 12 were from Khulna and 12 were from Barishal division. Selection of male and female participants were equally distributed, i.e. 12 males and 12 female PWDs. 12 were from urban and 12 from rural areas. Regarding distribution of age, two (2) were between 1-10 years, one (1) was between 11-20 years, six (6) of them were between aged 21-30 years, six (6) were between 31-40 years, four (4) were between 41-50 years, and the remaining five (5) were 51 years and above. Majority of them were Muslims (19 out of 24) and five (5) of them were Hindus (Table 5). Ten (10) of them had no education, two (2) had 1-4 years of education, five (5) had 5-7 years of education, three (3) had 8-9 years of education, one (1) had 10-11 years of education, and three (3) had completed 12 or more years of schooling (Table 5).

Table 5: Socio-Demographic Information of IDI Participants' (Male and Female PWDs) in Barishal and Khulna Divisions, 2019-2020

Religion	**Male**	**Female**	**Age**	**Male**	**Female**
Muslim (19)	10	9	1 to 10 years (2)	2	0
Hindu (5)	2	3	11 to 20 years (1)	0	1
Family Type	**Male**	**Female**	21 to 30 years (6)	2	4
Nuclear (19)	9	10	31 to 40 years (6)	2	4
Extended (5)	3	2	41 to 50 years (4)	2	2
Marital Status	**Male**	**Female**	51 to 60 years (2)	1	1
Married (19)	8	11	61 to 70 years (1)	1	0
Unmarried (5)	4	1	71 to 80 years (1)	1	0
Occupation	**Male**	**Female**	81 to 90 years (1)	1	0
Small Business	5	-	**Education**	**Male**	**Female**
Unable to work because of age	2	3	No education (10)	4	6
Housewife	-	7	1 to 4 grade (2)	2	0
Daily labour	-	1	5 to 7 grade (5)	2	3
Service	1	-	8 to 9 grade (3)	1	2
Child	1	-	10 to 11 grade (1)	1	0
Student	2	1	12 and above grade (3)	2	1
Electric Mechanic	1	-			

Focused group discussions (FGDs)

Community Members

Out of the eight (8) FGDs conducted with the community members, four (4) FGDs were with male community members that included 25 males, and four (4) FGDs were with female community members that included 27 females. Out of total 52 FGD participants (including both males and females), three (3) were between aged 18 to 20 years, 10 were between 21 to 30 years, 18 were between 31 to 40 years, 11 were between 41 to 50 years, and 10 were aged 51 years and above. Majority of them were Muslims (42 out of 52) and the remaining (10 out of 52) were from Hindu religion. Eight (8) of them had no education, one (1) had 1-4 years of education, eight (8) had 5-7 years of education, nine (9) had 8-9 years of education, seven (7) had 10-11 years of education, and 19 of them had completed 12 grade or more years of schooling (Table 6).

Table 6: Socio-Demographic Information of FGD Participants' (Male and Female Community Members) in Barishal and Khulna Divisions, 2019-2020

Sex	Female	Male	Religion	Female	Male
	27	25	Islam	19	23
Age	**Female**	**Male**	Hindu	8	2
18-20 years	2	1	**Education**	**Female**	**Male**
21-30 years	3	7	No education	6	2
31-40 years	13	5	1-4 grades	1	0
41-50 years	6	5	5-7 grades	6	2
51 years and above	3	7	8-9 grades	5	4
Occupation	**Female**	**Male**	10-11 grades	3	4
Housewife	15	0	12 and above grades	6	13
Day-labourer	8	0	**Marital status**	**Female**	**Male**
Service	2	4	Married	26	23
Business	0	11	Unmarried	1	2
Teaching	1	4	**Family type**	**Female**	**Male**
Farmer	0	2	Nuclear	20	20
No job	0	2	Extended	7	5
Student	1	2			

Frontline Healthcare Providers (FHPs)

Four (4) FGDs conducted with the frontline healthcare providers that included 31 community level government healthcare providers. Categorization of the FHPs was as follows: seven (7) Assistant Health Inspectors (AHI); seven (7) Family Planning Inspectors (FPI); two (2) Health Assistants (HA); two (2) Medical Technologists (MT); eleven (11) Health Inspectors (HI); and two (2) Family Welfare Assistants (FWA).

Key informant interviews (KIIs)

In KIIs, government stakeholders included two (2) Civil Surgeons (CS); one (1) Upazila Health and Family Planning Officer (UH&FPO); one (1) Resident Medical Officer (RMO); and two (2) Social Welfare Officers (SWO). From NGO sector, there were one (1) Consultant (Physiotherapist), and one (1) District Disability Affairs Officer (DDAO) from Jatiyo Protibondhi Unnayan Foundation; one (1) Upazila Coordinator (UC) from Shusilon; one (1) Field Coordinator (FC) from ADD International Bangladesh; and one (1) District Manager (DM) from Disabled Rehabilitation and Research Association (DRRA).

VI. Prevalence of disability and use of assisted device

In this study, disability has been considered as impairment of any of the following - visual, hearing, speech, mobility, or hand and finger movement.

Among the respondents having visual impairment, one-third (32.8%) reported that they always faced that problem followed by problem in general (19.4%), problem happened sometimes (7.5%) and little problem (5.4%). 27.1% of the respondents with vision impairment were using any assisted device. However, more than half (57.3%) of the respondents had been suffering from the problem despite using the assisted device. Among the respondents who were using any assisted device, around 60% of them received any consultation (Table 7).

Among the respondents having hearing impairment, one-tenth (11.6%) stated that they always had the problem followed by problem in general (7.3%), sometimes problem (5.1%) and little problem (3.5%). A few (2.5%) of them were using any assisted device. 60.0% of the respondents were still facing problem despite using any assisted device. Among the respondents who were using any aided device, around 70% of them sought any consultation (Table 7).

25.6% of the respondents with disability had difficulty to move or walk. One-third (34.7%) of them were using any assisted device. Seven in every ten (69.4%) of the respondents had problem even though they were using any assisted device. 44.4% of them received any consultation for the mobility impairment (Table 7).

Very few (4.8% and 1.6% respectively) of them were using any assisted device for difficulty in hand movement or speech problem (Table 7).

Table 7: Prevalence of Disability and Use of Assisted Device in Barishal and Khulna Divisions, 2019-2020

	Visual (%)	Hearing (%)	Mobility (%)	Speech (%)	Hand and finger movement (%)
Having any problem	**n=1444**	**n=1444**	**n=1444**	**n=1444**	**n=1444**
No problem	34.8	72.4	75.3	88.6	87.0
Little problem	5.4	3.5	1.5	1.2	0.9
Sometimes problem	7.5	5.1	2.1	0.8	1.2
Problem in general	19.4	7.3	5.6	2.4	3.1
Always problem	32.8	11.6	15.4	7.1	7.8
Using any assistive devices	**n=941**	**n=399**	**n=357**	**n=165**	**n=188**
Yes	27.1	2.5	34.7	4.8	1.6
No	72.9	97.5	65.3	95.2	98.4
Problem continued despite using assistive device	**n=255**	**n=10**	**n=124**	**n=3**	**n=1**
Sometimes	10.2	10.0	4.0	33.3	0.0
Frequently	32.5	20.0	25.0	0.0	0.0
Always	57.3	60.0	69.4	33.3	100.0
Since birth	0.0	10.0	1.6	33.3	0.0
Did any consultation for the problem faced	**n=255**	**n=10**	**n=124**	**n=3**	**n=1**
Yes	58.4	60.0	44.4	100.0	100.0
No	41.6	40.0	55.6	0.0	0.0

Findings from in-depth interviews with PWDs

Types of disabilities

Impairments experienced by qualitative study participants were Visual (#5), Hearing (#2), Hearing and Speech (#3), General Movement & Self Care (#6), Hand Movement (#3), and General Movement & Self Care and Hand movement (#5). Among the participants, two (2) males and three (3) females had **visual** disability; three (2) females had only **hearing** related disability; one (1) male and two (2) females had both **hearing and speech** related disability; six (6) males had general **movement & self-care** related disability; three (3) females had **hand movement** related disability; and three (3) males and two (2) females had both **hand movement** and **general movement & self-care** related disability (Table 8).

Findings from IDI with both male and female PWDs revealed that most of the families were insolvent. The male PWDs themselves or the head of their families were involved in different occupations; for instance, small business (selling cow's milk, vending street food, selling vegetables), micro bus driver, tea stall owner, mobile servicing shop owner, day-labourer, electric mechanic, and teacher of a government college. One of the PWD was government service holder, but now he is retired and bearing his family somehow. Most of the family's monthly income was between BDT 3,000 to 10,000. Mother of a male PWD shared that her husband has divorced her, and she and his disable son stayed with her father (maternal grandfather of the PWD) who was a day-labourer.

Most of the female PWDs were housewives, one of the PWD was a child and student. Head of the families of the female PWDs were involved in different occupations; rickshaw puller, auto rickshaw and van driver, farmer, tea stall owner, day-labourer, cloth business etc. All of their monthly income was between BDT 3,000 to 15,000. Most of the female PWDs were dependent on their family members for living. However, one of the female PWDs shared that she supported her family by working in field and stitching handmade quilt ***(katha)*** for other people. From these sources, she earned a little income.

Table 8: Disability Types, Education, and Occupation of the IDI Participants' in Barishal and Khulna Divisions, 2019-2020

Disability type	Sex	Age	Years with disability	Education	Occupation
Vision (5)	Male (2)	50	20	0	Small Business
		72	Early childhood	3	Unable to work because of age
	Female (3)	27	9	16	Housewife
		30	27	8	Housewife
		40	30	5	Day-labourer
Hearing (2)	Female (2)	60	12	0	Unable to work because of age
		35	25	7	Housewife
Hearing and speech (3)	Male (1)	55	55	0	Small Business
	Female (2)	55	55	0	Housewife
		28	28	0	Housewife
General movement & self-care (6)	Male (6)	32	31	8	Small Business
		44	39	16	Service
		6	5	0	Child
		22	21	12	Student
		70	45	0	Small Business
		30	27	7	Electrician
Hand movement (3)	Female (3)	32	31	0	Housewife
		25	8	8	Housewife
		11	9	5	Student
General movement & self-care and hand movement (5)	Male (3)	82	9	10	Unable to work because of age
		10	10	3	Student
		32	31	7	Small Business
	Female (2)	36	4	0	Unable to work because of disability
		55	53	0	Unable to work because of disability

Signs and symptoms experienced by the PWDs

The male (#2) and female (#3) PWDs with **visual** impairment reported about the following signs and symptoms: they could not see distant things clearly, severe pain in or around eyes, red eyes, watery discharge from eyes, and sudden change in vision like big things looks like small.

> "*Suddenly I fell down. While working I see darkness due to sudden **matha ghurano** (dizziness) ...everything was blur and dark, big things look small…that means the man looks small. I look directly (without changing direction) to see the man again in big size (real size).*" **– A Female PWD.**

Family members of three (3) females with hearing impairment mentioned that most of the time they could not hear properly. They frequently asked others to speak more clearly and loudly, and sometimes they understood something different/wrong. The PWDs shared their signs and symptoms like feeling louder ringing (***sounds like dhup dhup***), hissing (***sounds like hiss hiss***), and roaring sounds (***sounds like shoow shoow***), itching in the ears, and dribbling of wax or fluid (***water like***) from ears sometimes.

The male (#1) and female (#2) PWDs with both **hearing and speech impairment** could not understand properly what other people said. The family members had to speak loudly or had to talk with them using sign language. Often they thought that for their hearing loss, family members or other people did not share everything with them; this thought caused mental stress to them.

The female (#3) PWDs with **hand movement** impairment could not move hand(s), and could not hold anything by their hand(s). They also complained that their hand(s) sometimes become swollen, tendered, and they didn't get any strength in hand(s).

The males (#3) with **general movement & self-care** impairment and **hand movement** impairment shared that there was no strength in their legs, so they could not walk without assistance. They also had pain in their legs. Besides, some of them could not move their hands, felt no strength in hands, and their fingers were bent. Some of them could move and walk slowly, and those who became paralyzed, could not able to do anything by themselves. Few of them were using wheel chair to move independently. Their family members mentioned that development of the PWDs was not same like the other children's since birth. They could not sit properly during their early age, their waist and back were bent while sitting, could not crawl, stand, or walk; their toes were bent, and they fell down on ground while tried to walk.

> "*(My child) could not sit while he was 5/7 months old, waist was bent while sitting. (He) could not walk even at the age of two years. Toes of his left leg became bend while (he) tried to stand.*"**– A Mother of Male PWD.**

Female PWDs with **general movement & self-care** impairment and **hand movement** impairment sometimes had seizures, and were not being able to move at all by themselves. This was especially happened with those

who had developed paralysis (numb/insensitive) after a brain stroke. One of them was completely bed-ridden. All of them had to face lots of challenges in their daily life.

Duration and causes of disabilities

Four (4) female PWDs had **hearing** impairment; two (2) of them had both **hearing and speech** impairment. One (1) female PWD had been suffering from these problems since birth, and the others since their childhood after an episodes of high fever, small pox or some other unknown reasons.

One male respondent had both **hearing and speech** impairment. He had been suffering from the problem since birth; reason for these problems was not known to him or to his family.

Five (5) female PWDs had difficulties in **hand movement.** In addition**,** two of them had difficulty in **general movement & self-care** as well**.** Hands and legs of the latter two PWDs were paralyzed, i.e., numb/insensitive on the left side after an attack of stroke at the age of 30 years. Moreover, three (3) PWDs had been suffering from difficulties in hand movement since their childhood. One (1) of them shared that her uncle had cut off one of her finger accidentally while cutting peanut. One of them had a history of burn during her childhood. Others had difficulty in **hand movement** after an attack of typhoid fever, and after developing bone cancer. One of the female respondents had contradictory information about the cause of her disability:

> "*Sir (doctor) said that I have cancer…. it was bone cancer…. I had suffered from typhoid fever (in early childhood). Doctors suggested me to take fourteen injections, but my parents forgot to complete the regime after pushing only one injection. I think that caused my hand problem…My father-mother also perceived the same (typhoid is the cause) …. Everyone (neighbours) visited our house used to say that typhoid might be a cause of hand problem.*" **– A Female PWD**.

Six (6) male PWDs had difficulties in **general movement & self-care;** three (3) of the PWDs had difficulty in both **hand movement** and **general movement & self-care.** Four (4) out of nine (9) PWDs had these problems since birth. Another four (4) male PWDs stated that they had developed these problems during their childhood after they had suffered from high fever. Besides, one of them shared that after an episode of high fever, his left foot became crippled due to wrong treatment given by the village doctor. Another PWD said that he had developed these problems because of polio. Moreover, one (1) male PWD mentioned that his left hands and legs became paralyzed after an attack of stroke that happened around nine years back. One male PWD's family members' mentioned that they did not know the reason behind his disability, but they heard that negative blood group of the parents could be one of the causes.

> "*I don't have any idea why this type of child! However, now I can understand that negative-positive blood group can cause this problem. His (child's father) blood group is negative and mine (child's mother) is negative as well. He has A- (negative) and I have O- (negative). …One person said, you would not have*

a child like that if you could understand negative-positive before having a baby, and could have taken two injections." **– A Mother of Male PWD.**

Furthermore, three (3) female PWDs had **visual** impairment. Two (2) of them could not see with their one eye and had been suffering from the visual loss since their childhood after an accident. One (1) of them shared that while cutting the betel nut, a part of it went into her eye and she rubbed her eye; since then she lost her eyesight. Another female PWD shared that a heron pecked in her eye, and after that occurrence, this condition developed. Both of them believed that they have lost their eye sights because they did not get proper treatment on time. One (1) of the female PWDs with **visual** impairment mentioned that she had started losing her vision since adolescence, and the reason of which was unidentified to her and the family.

Additionally, two (2) male PWDs had **visual** impairment, who could not see with their one eye. One of them shared that around 20 years ago while working at field, something like mud went into his eye accidentally, and since then he lost his eye sight. Another male PWD stated that he has developed the visual loss since his childhood after an episode of fever.

VII. Healthcare seeking behavior in last 30 days

Findings from the household survey showed similarities between healthcare-seeking behavior among person without disability (PWoD) and person with disability (PWD). Around 39.0% respondents from each group visited any healthcare facility or provider to seek care for any kind of illness in the last 30 days. Nearly 60.0% of the respondents from each group sought care from informal sector which was comparatively less in case of seeking care from formal sectors (44.4% and 40.5% for PWoD and PWD respectively). However, public facilities were the least chosen option for both the groups: PWoD (15.7%) and PWD (13.6%). Most of the respondents were satisfied with the services they received (Table 9 and Table 10).

Table 9: Healthcare Seeking Behavior in Last 30 Days (Person without Disability) in Barishal and Khulna Divisions, 2019-2020

	Person without Disability (PWoD)												
	Total	**Visited healthcare facility/provider in last 30 days for any kind of illness**		**Went to formal care provider**		**Went to public facility**		**Went to private facility**		**Went to informal sector**		**Satisfied with the services received**	
		n	%	n	%	n	%	n	%	n	%	n	%
All (row %)	1464	575	**39.3**	256	44.5	90	15.7	171	29.7	323	**56.2**	560	97.3
Location													
Urban	392	140	35.7	93	66.4	38	27.1	51	36.4	49	35.0	135	96.4
Rural	1072	435	40.6	163	37.5	52	12.0	120	27.6	274	63.0	425	97.9
Gender													
Male	700	278	39.7	116	41.7	41	14.7	68	24.5	171	61.5	268	96.4
Female	763	296	38.8	139	47.0	49	16.6	102	34.5	152	51.4	291	98.3
Third gender	1	1	100.0	1	100.0	0	0.0	1	100.0	0	0.0	1	100.0

Age in years													
0-5	175	99	56.6	40	40.4	15	15.2	27	27.3	58	58.6	97	97.9
6-15	274	96	35.0	31	32.3	13	13.5	18	18.8	66	68.8	93	96.8
16-30	375	118	31.5	48	40.7	19	16.1	29	24.6	67	56.8	115	97.4
30-49	367	148	40.3	77	52.0	25	16.9	53	35.8	76	51.4	143	96.6
49-60	174	71	40.8	40	56.3	13	18.3	29	40.8	32	45.1	69	97.1
61 or more	99	43	43.4	20	46.5	5	11.6	15	34.9	24	55.8	43	100.0
Education													
Yes	1120	403	36.0	182	45.2	60	14.9	123	30.5	225	55.8	392	97.2
No	344	172	50.0	74	43.0	30	17.4	48	27.9	98	57.0	168	97.6
Wealth													
Lowest	272	108	39.7	39	36.1	15	13.9	23	21.3	67	62.0	105	97.2
Lower	310	133	42.9	50	37.6	13	9.8	36	27.1	93	69.9	130	97.7
Middle	276	110	39.9	41	37.3	15	13.6	28	25.5	68	61.8	107	97.2
Higher	289	106	36.7	49	46.2	21	19.8	32	30.2	54	50.9	104	98.1
Highest	317	118	37.2	77	65.3	26	22.0	52	44.1	41	34.7	114	96.6
Division													
Barishal	735	315	42.9	133	42.2	44	14.0	96	30.5	193	61.3	303	96.1
Khulna	729	260	35.7	123	47.3	46	17.7	75	28.8	130	50.0	257	98.8

Table 10: Healthcare Seeking Behavior in Last 30 Days (Person with Disability) in Barishal and Khulna Divisions, 2019-2020

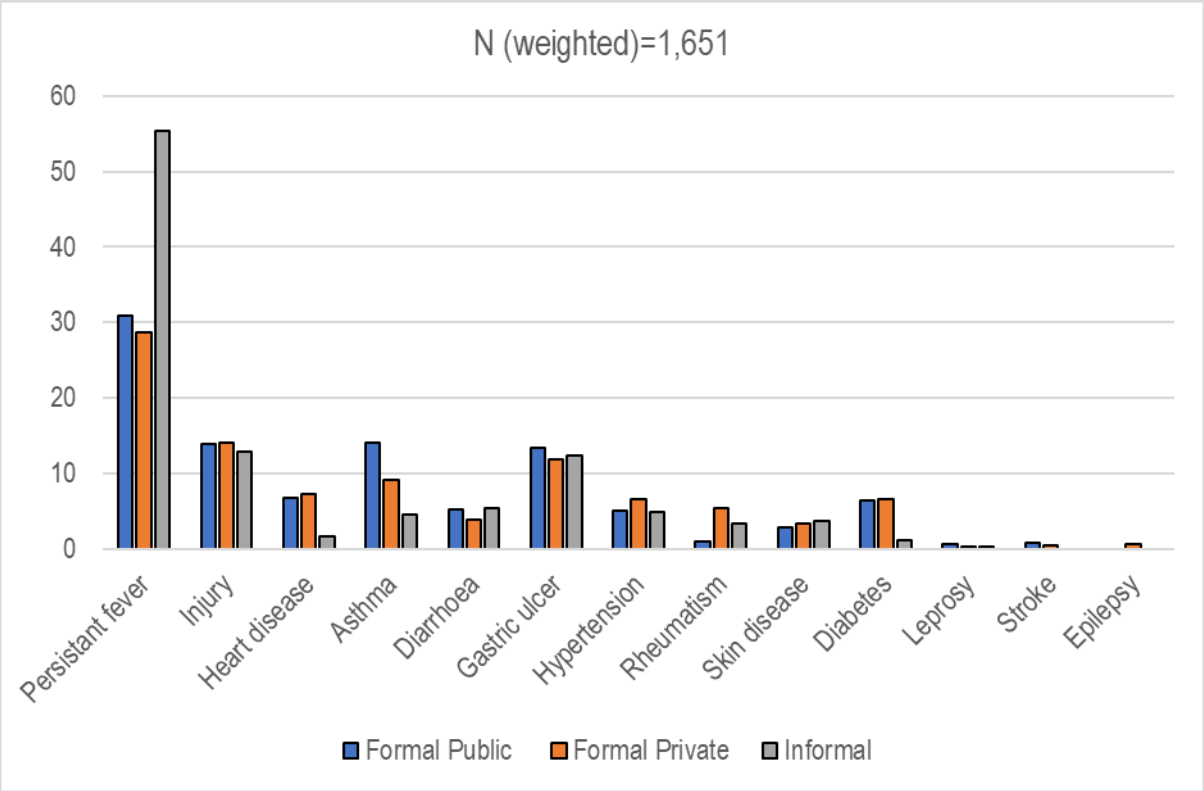
	Person with Disability (PWD)												
	Total	Visited healthcare facility/provider in last 30 days for any kind of illness		Went to formal care provider		Went to public facility		Went to private facility		Went to informal sector		Satisfied with the services received	
	n	n	%	n	%	n	%	n	n	%	%	n	%
All (row %)	1444	573	39.7	232	40.5	78	13.6	146	25.5	344	**60.0**	546	95.2
Location													
Urban	388	148	38.1	85	57.4	31	20.9	52	35.1	65	43.9	144	97.3
Rural	1056	425	40.2	147	34.6	47	11.1	94	22.1	279	65.6	402	95.0
Gender													
Male	655	270	41.2	100	37.0	35	13.0	60	22.2	175	64.8	257	95.2
Female	789	303	38.4	132	43.6	43	14.2	86	28.4	169	55.8	289	95.4
Third gender	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Age in years													
0-5	44	14	31.8	6	42.9	2	14.3	3	21.4	8	57.1	14	100.0
6-15	83	34	41.0	17	50.0	5	14.7	9	26.5	20	58.8	34	100.0
16-30	131	49	37.4	21	42.9	8	16.3	12	24.5	29	59.2	49	100.0
30-49	258	100	38.8	49	49.0	14	14.0	31	31.0	51	51.0	93	93.0
49-60	307	118	38.4	43	36.4	15	12.7	28	23.7	73	61.9	110	93.2
61 or more	621	258	41.5	96	37.2	34	13.2	63	24.4	163	63.2	246	95.3
Education													
Yes	807	320	39.7	143	44.7	52	16.3	88	27.5	180	56.3	306	95.6
No	637	253	39.7	89	35.2	26	10.3	58	22.9	164	64.8	240	94.9
Wealth													

	Lowest	310	124	40.0	44	35.5	15	12.1	28	22.6	84	67.7	117	94.4
	Lower	347	140	40.3	46	32.9	18	12.9	25	17.9	92	65.7	130	92.9
	Middle	230	100	43.5	37	37.0	12	12.0	25	25.0	61	61.0	94	94.0
	Higher	293	108	36.9	40	37.0	13	12.0	26	24.1	68	63.0	107	99.1
	Highest	264	101	38.3	65	64.4	20	19.8	42	41.6	39	38.6	98	97.0
Division														
	Barishal	719	313	43.5	132	42.2	42	13.4	85	27.2	193	61.7	303	96.8
	Khulna	725	260	35.9	100	38.5	36	13.8	61	23.5	151	58.1	243	93.5

VIII. Disease-specific care-seeking

Respondents from both the groups (PWoD, and PWD) mostly sought care from formal public, formal private or informal healthcare providers. Generally, persistent fever was the common cause for visiting to different types of health care providers (30.8%, 28.6% and 55.4% respectively), followed by injury, gastric ulcer and asthma, hypertension, heart disease, diabetes, diarrhoea, skin disease, and for some other conditions. It was observed that highest percentage of disease-specific care was taken from the informal healthcare providers (Figure 8).

Figure 8: Disease Specific Care Seeking from Different Types of Healthcare Providers in Barishal and Khulna Divisions, 2019-2020



Findings from qualitative study

Health seeking behaviour of general people

Findings from most of the respondents participated in the qualitative study revealed that general people usually availed home remedies or went to traditional healers (***hujur***, ***kobiraj***), village doctors, Community Clinic (CC), Union Health and Family Welfare Center (UH&FWC), Upazila Health Complex (UHC), private chamber, private clinic, district hospital, and specialized hospital for care seeking based on severity and types of illness. While seeking treatment from outside of home, the **rural** people usually chose traditional healers, drug sellers, village doctors, CC and UH&FWC due to short distance, low cost, and sometimes free of cost. On the other hand, FGD findings with male and female community members from **urban** areas showed that most of the people initially liked to go to drug sellers or pharmacy because of short distance and easy accessibility.

"The people of the coastal areas, particularly those who live in the villages, usually sought treatment from the nearest health center of their houses, if available. If there is no government health center then they took primary treatment from pharmacy, and village doctor. Basically when they suffered from 'acute crisis', like accident, high fever, or diarrhea, only then they visited the allopathic doctors directly" **- A Government Stakeholder.**

Home remedies and traditional healers

Most of the participants from FGDs (male and female community members) from rural areas mentioned that when got sick, at first, majority of the community people liked to stay home and took home remedies such as using ointments, massaging oil, pouring water, hot fomentation and sought treatment from traditional healers like ***kobiraj*** and ***hujur*** who provided blessed oil and blessed water before seeking care from outside of home and/or from a formal health provider.

Village doctors'/drug sellers

A significant number of participants shared that many people went to village doctors and drug sellers for primary treatment while they suffered from fever, abdominal pain, and headache. They visited the places while they wanted to check blood pressure and diabetes also. Even they do home visits at midnight.

"Most of them (village people) commonly go to village doctors. The village doctors have few permanent customers. They prescribe medicine for gastric, abdominal pain and headache." **- A Male Community Member.**

"We are not able to go to elsewhere except to the village doctor especially at night time. If someone is sick in our house, we usually go to the village doctor's home to call him to see the patient at home, and he comes with us. After seeing the patient if he tells us, 'I can't provide treatment to the patient at home, take him to other place', then we take the patient outside home at night. Sometimes the village doctor also accompanied us." **– A Female Community Member.**

Community Clinics and other government health facilities

Findings from FGDs and KIIs revealed that, most of the time, the rural people preferred to go to nearby Community Clinic (CC) for primary health care. Children and women, especially pregnant women visited these places more. Majority of the people from rural areas, in particular, those who were not financially solvent enough, went to CC for their primary health care, as they could get treatment and medicine there free of cost.

"People come to Community Clinic for getting primary treatment. Most of the people come to Community Clinic… Poor people come here more. There is no visiting cost (consultation fee)." **- A Male Community Member.**

Another cause to prefer CC is Community Healthcare Provider (CHCP), Health Assistant (HA) and Family Welfare Assistant (FWA). CHCP, HA and FWA are familiar to the community people. The general people also

chose to visit other government health facilities such as UH&FWC, UHC, District Hospital, and MCWC for better treatment. According to Stakeholders and FHPs, general people (mostly) are satisfied with the services provided in the government facilities. Community people were aware about the health services, and the free medicine, especially at the union level government facilities. Short distance, easy accessibility, and good behaviour of the healthcare providers were the major factors which encouraged community people to go to the government health facilities.

> *"There is satisfaction at community level; they (rural people) are satisfied by getting treatment from the government health facilities like CC and UH&FWC. Now we have more accountability and transparency than before due to the central monitoring system."***– A Government Stakeholder.**

Referral to other facilities

The patients were referred or advised to visit higher level facility when the providers fail to provide services. CC and UH&FWC referred patients to UHC or District Hospital. In case of emergency the general patients were referred to upper level facility based on types of sickness and level of severity.

> *"If complication arises, then we refer the patient to tertiary level hospital like Sher-e-Bangla Medical College, Barishal and 250 Bed Hospital, Patuakhali which is nearest from here."***– A Government Stakeholder.**

Barriers to provide quality care

Some of the stakeholders and FHPs reported some problems of the government health facilities. Lack of manpower, insufficient supply of medicine, lack of diagnostic equipment, unclean toilet, and lack of water supply were the reasons for hindering quality services. Community people suffered a lot because of the barriers existed at government health facilities.

Complicated cases those were not managed at the district hospital, were referred to nearby medical college hospital or to Dhaka. The community people expressed their comfort to visit the specialized doctors among all types of providers, who could provide them proper treatment.

> *"We feel comfortable if we get the treatment after consultation with a specialist doctor."***– A Male Community Member.**

Few male and female community members mentioned that the coastal people also went to other health facilities, e.g., NGO clinics, Christian missionary hospitals, and other specialized hospital such as eye hospital. During special need, the patients were referred to specialized hospital at Dhaka.

Health seeking behaviours of PWDs

Primary health seeking behaviour of PWDs:

Most of the male and female community members participated in the FGDs in both urban and rural areas reported that there was no separate health facility for the treatment of PWDs, especially in rural areas. Community people usually preferred to go to village doctors, and traditional healers. In addition, they usually try home remedies, like, giving hot fomentation and massaging ointments and mustard oil to get relief from pain, and pouring water on head for reducing the temperature/ fever. Findings from most of the KIIs, and FGDs with FHPs also conveyed similar message that the PWDs in rural areas usually tried to get treatment from nearby traditional healers, village doctors, and drug sellers.

Village doctors' /drug sellers

Most of the family members of the PWDs took them to different level of service providers for treatment. However, majority of them preferred to go to village doctors than government health facilities due to time convenience, easy accessibility, short distance, low cost, and familiarity. Though in some cases they suffered a lot for the wrong treatment given by the village doctors/drug sellers.

> *"At that time there was no MBBS doctor at Upazila Sadar. At first we went to a village doctor but he provided me with wrong treatment, and I had some bad reaction due to that. Then they (family members) took me to another doctor (MBBS doctor), who said that it's too late to cure. He tried to provide treatment by injection and some other things. But I did not get back the parts of my body which was lost."* **– A Male PWD.**

Traditional healers

The male PWDs also went to different traditional healers like ***huzur***, ***kobiraj***, ***pir-fokir***, ***baba-thakur*** *and* ***bede***. Most of the PWDs with **general movement & self-care** impairment, and PWDs with **hearing and speech** impairment mentioned that they went to traditional healers who provided them different types of traditional treatments like blessed oil *(**telpora**)* and blessed water *(**panipora***) for better care. They also had spent a lot of money for this treatment with the hope that they would get well soon, though it did not work in several cases. Some went to homeopathic doctor for the treatment of their **hearing** impairment and **speech** impairment.

> *"Traditional healer came here (respondent's house) many times, they used to say that they would do many things and wanted more money for this treatment. I gave them a lot of money! He gave* ***maduli*** *(amulet),* ***fuu*** *(blessed blow), and* ***gola oshudh*** *(liquid medicine). Oil and water were also given and massaged with oil as well. After that we could not manage money for this treatment and did not do anything else. And we also could not find any better place."* **– A Male PWD.**

One female PWD's family member mentioned that since her childhood they took her to different providers for the treatment of her **hearing** impairment and **speech impairment**. Sometimes they took her to village doctor, government health facility, private clinic, traditional healer, or homeopathic doctor. And most of the times they

preferred village doctor than government health facility. It was also informed that in the rural areas, there were scarcity of qualified doctor so they had to choose village doctor.

> *"There is no MBBS doctor, only village doctors are here, they are normal doctor or became doctor by selling medicine, those types of doctors are here. There is no good doctor at Dorduani (name of the place)."***– A Female PWD.**

Most of the community people had no idea from where a PWD can get service. However, very few of them mentioned that some people went to specialized health facility for the treatment of PWDs, but the cost of service was very high there.

> "*Disabled people go to Sadar Hospital. They go there like us. There is no separate arrangement or individual treatment system for disabled people.*" **– A Male Community Member.**

Community Clinics and other government health facilities

Findings from KIIs revealed that community people usually sought care from government health facilities. While the patient's condition was serious and could not be treated by the informal providers, then they went to private chambers. Most of them stated that the PWDs go to CC, UH&FWC or UHC for general illness like fever, headache, and dysentery. Due to disability related problem at primary level, they usually went to the same places. However, as these health facilities had no special arrangement for PWDs, they were referred to District Hospital or Medical College Hospital from the primary level facilities.

Most of the male and female PWDs and their family members shared almost similar experiences about government health care system. They preferred village doctors, private clinics, private chambers, and NGO clinics because of their experiences of different negative circumstances with the government health facilities. These included, unavailability of doctors and nurses, lack of medicines, no arrangement for medical test, and no special facilities for PWDs.

> *"Several times I took him at Sadar Hospital, but the doctors there did not give such importance, they visit the patient just once. If they want, provide one or two tablets for gastric or wrote prescription and told us, 'buy it from outside and pray for the blessings of Allah'."***– A Mother of Male PWD.**

Moreover, most of the PWDs and their families added that there was no specialized doctor, no proper sitting arrangement, separate queue, and no wheelchair for the PWDs in nearby government hospital. They also stated that there were no good government hospitals, where they could get proper treatment especially for the PWDs. Some of the PWDs and their family had awful experience about government hospital. They reported, while seeking care for their emergency patient they did not get proper treatment or bed for the patient rather they had to stay in the hospital corridor with the patient.

> *"We went to Khulna 250 Bed Hospital at first, we did not get any bed rather had to stay three days at the corridor; treatment was provided in that corridor. We did not get proper treatment there. …. there was*

*no staff to tell what medicine to take. They did not take any care of my mother. Then we went to Prince Hospital (a private hospital) for the treatment of my mother."***– A Son of Female PWD.**

Due to unavailability of doctors and nurses, their behaviour and attitudes, lack of medicines, travel cost and time, and long waiting time, most of the patients preferred village doctors and private practitioners. Especially for the treatment of PWDs, their family members suffered a lot.

Although most of the FGD participants from both **urban** and **rural** areas had negative view, some of them had shared positive experiences about government facilities. Some community people of urban areas, in particular, who were not economically solvent, liked to go to UHC for free treatment and well behaviour of the healthcare provider. Government stakeholders also added that PWDs got free treatment and medicine, and they were treated on priority basis while visiting the government health facility.

"There are free tickets for them at hospital outdoor/emergency department and they do not have to maintain any queue as well. They can directly contact the doctor and if needed, they can be admitted in the hospital easily. All types of government facilities are available for them, and medicines those are supplied in the hospitals are given to them."- **A Government Stakeholder.**

A few of the PWDs had expressed their satisfaction of getting health services from the government health facilities.

*"They (nurses) helped me while I was going to toilet. In the morning, while I was going for walk they supported me. I told them that I did not need any help, yet they helped me. I was very pleased after going to Bagerhat hospital; it was clean and well decorated with white tiles."***– A Male PWD.**

Health services of NGOs

However, data from Stakeholders, FHPs and community people identified that, a few of the NGOs were working for PWDs. In Barishal and Khulna divisions, Shusilon, ADD International Bangladesh, DRRA and a government project under Protibondhi Unnayan Foundation were providing health care to PWDs at the time of conducting the current study.

*"Some NGOs work for PWDs, such as, there is disabled school at Lemua who works for the study of child with disability. We do campaign at remote areas, and we provide services through mobile therapy van at marginal areas. We have a car with all therapy equipment in it. If we arrange campaign for one month then many PWDs who are unable to come to Raihanpur can get one-month therapy."***- A NGO Stakeholder.**

Furthermore, the government stakeholders were also expressed their satisfaction about the services provided by the NGOs for the PWDs. They mentioned that many of the PWDs, who visit these facilities for services, were satisfied because of their treatment with good care, arrangement of trolley and wheelchair, for getting the facility

of physiotherapy or exercise, and for getting service at free of cost. Those who were paralyzed for a long time could visit those facilities to receive special service.

> *"They (NGOs) have specialized trained staff who provide services to the PWDs."*- **A Government Stakeholder.**

Private clinics

However, a few of the stakeholders informed differently; the private clinics did not have facility for providing care for PWDs. According to many stakeholders, private clinics were not supportive for the PWDs and treatment there was much expensive.

> *"None of the private clinics are friendly for disabled people. Actually, the available clinics are very much commercial."* **– A NGO Stakeholder**.

Challenges faced by PWDs

Data showed that, after some days of treatment, most of the PWDs and their families stopped visiting the doctor or other healthcare provider. Financial constrains or poverty was clearly linked with their reluctance for seeking care. They mentioned following reasons for stopping treatment: no special facility for the PWDs, no doctor for special treatment, distance of the government health facilities, bad road communication, and above all economical insolvency. Another female PWD mentioned that before marriage her family members took her to different private clinics and homeopathic doctors for the treatment of her hearing loss; but after getting married, everything had stopped because of her husband's poor financial condition.

On the other hand, the care seeking pattern of the PWDs with **general movement & self-care** impairment and **hand movement** impairment was almost similar. Though they had started treatment from the beginning, yet most of them continued their treatment because they were suffering a lot in their everyday life, especially who were paralyzed and cannot handle daily self-care. Moreover, a few of them said that they had spent a lot of money to get proper treatment.

Findings from the FGDs with community people informed that both urban and rural people had belief on specialized doctors, especially the private practitioners and private clinics for the treatment of PWDs.

> *"I went to Satkhira Sadar hospital for (treatment of) my baby. After going there, I found that if this treatment to be continued, my baby will not survive. I should take fast initiative for his treatment, and if I would not take any faster treatment or faster initiative, more problem will be raised. So, I admitted my baby at private clinic for better and fast treatment without looking at money."***– Father of a male PWD.**

Referral to other facilities

The patients with severe disabilities were referred to District Hospital, Medical College Hospital, and Dhaka Hospital from CC and UHC. In particular, the PWDs were referred to the Orthopedics Department of the Medical

College Hospitals, Disabled Development Foundation (*Protibondhi Unnayan Foundation*) or specialized hospital like Eye hospital, ENT hospital in Khulna, Barishal or Dhaka.

Findings from FGDs and KIIs also revealed that from the government hospitals, routine referral facility was the District Hospital. However, when the cases were serious, then the patient was sent to the Medical College Hospitals. If distance to the District Hospital was almost similar to the Medical College Hospital, then the patients were directly referred to the Medical College Hospitals. PWDs commonly needed attendant to go to anywhere. Severe cases which could not be managed in the local hospitals, were referred to Dhaka hospital as well. Government Stakeholders informed that there was a special care for the PWDs while referring.

> *"There is same referral system for everybody as there is no special management. But when referral for a PWD is required, then we became more cordial and take much care, and initiative for them than the general patients. We usually communicate beforehand with the contact persons at the places where the PWDs are referred."* - **A Government Stakeholder.**

Similar information was found from the NGO Stakeholders that the PWDs were specially treated by them while referred. In both divisions, while the PWDs were not managed by the NGO facilities, they were referred to specialized facility for the PWDs.

> *"We refer to disable development foundation for therapy."***– A NGO Stakeholder.**

> *"A PWD may have other diseases besides the disability. He/she comes here to confirm it. Then we refer the patient to Sadar Hospital or some other places depending on the patient's condition. I or another doctor who are available here at that time, help the patient to contact with the doctor to the referred places, if familiar to us."***– A NGO Stakeholder.**

It is found that in vulnerable situations like pregnancy, the PWD's family followed/complied with the referral request. One mother-in-law of a female PWD mentioned that while her daughter-in-law was pregnant the village doctor advised her to take to the nearby UHC as she had **hearing** impairment and **speech** impairment.

> *"Ranjit (the Village doctor) told, 'the patient can't speak, it would not be good to keep the patient at home because anything could be happened anytime, so you should take the patient to Shyamnagar'. Then we admitted the patient to Syamnagar (UHC)."***– A Mother-in-Law of Female PWD.**

Decision making for healthcare seeking

Most of the IDI informants mentioned that the family members usually took the decision of seeking care for the PWD of any family. Sometimes decisions are taken by a single member of the family or sometimes discussion took place between father, mother and/or other earning members of the family. However, in some cases, decision for care seeking was taken after discussion with relatives, neighbors, village doctors, and known knowledgeable persons.

"We take her to that place where one of our neighbors went for treatment after an attack of stroke... He was cured. And he advised us, it would be better to go there, go to him (the doctor), you are spending money in different places. Then we collected the phone number from a slip and went there after communicating with him (the doctor) over phone." **– A Female PWD.**

Identifying PWDs and providing disability card

Findings from the KIIs found that the government officials identified the PWDs by following the Disability Act-2013. Firstly, a form was filled up and then it was verified by a doctor and a Social Welfare Officer (SWO). After that, considering the severity of the disability, financial condition of the person, and age, a group of government officials selected the PWDs to be prioritized for the disability card. The government people were entirely responsible for selecting the PWDs and distributing the disability cards among them.

"We have government rules here. If someone demands himself as a ***protibondhi*** *(disabled person) or want to get recognition as a disabled person at social service office, they then provide the person a form as per our government rules. After bringing that form to us and after considering the person's age, body structure, intelligence, birth history, and school performance, we group him/her according to different categories- whether s/he is physical disabled, mental disabled, intellectually disabled, speech disabled, or visually disabled."* – **A Government Stakeholder**.

After identification and verification of the PWDs, a card named "disability card" is given to the selected PWDs from the *Upazila Social Welfare Office*. The Ministry of Social Welfare holds the formal responsibility for disability.

"We provided almost 53,300 (disability) cards at Shyamnagar Upazila." – **A Government Stakeholder**.

Findings from KII (Government stakeholders) also showed that there were challenges in identifying the PWDs as the doctors did not have any particular training on disability, and the government people sometimes made mistakes in identifying disabilities. Similar information found from the FGDs with community members, and IDIs with PWDs and families. Most of the time, the PWDs did not receive the disability cards rather the powerful and influential persons took those cards. According to their statement, one needs power and money to get the disability card. Observation during data collection also supported the findings that one PWD had no disability card rather PWoDs had the disability card. Getting the disability card for a PWD was a hazardous task for the family.

I did not get any card for my ***protibondhi*** *(disabled) son. I tried for this a lot. I went to social welfare office for this and talked with them. I also went to doctor. …I did not get a card yet. …he is getting some money since last 2 to 2 and half years. They collected one picture of my son and provided a receipt, now every 6 months or one year later they give some money as per that receipt. … approximately BDT 1000 to 1500 per year."***– Mother of a Male PWD.**

Disability aids

Physically-challenged people also received aids including wheelchairs, tri-cycles, white sticks, and hearing aids from *Protibondhi Seba o Sahajjo Kendro*, Ministry of Social Welfare. Government did coordination with some of the NGOs and the NGOs distribute the aids among the PWDs in the community.

> *"There are many PWDs who need help, who are unable to walk or have visual impairment. For these people, our National Disability Development Foundation have yearly budget. This year, we have distributed 60 wheel chairs, tri-cycles, and hearing devices. Recently 10 white sticks with electric vibrator (will vibrate if there is any obstacle within 6 meters) were provided to them."* **- A NGO Stakeholder.**

Some of the PWDs had also received wheel chairs, and blankets from political leaders, Christian Missionaries, and NGOs.

> *"Wheel chair and the stick of my father-in-law was provided from the Christian Missionaries. They listened from the villagers about the extremely poor people living in this village. They had been searching them since last one year; then they provided the chair after one year. There is a school for* ***boba*** *(dumb) here, they heard about me from that school. The school authority has informed them 'there is a child with disability in our village', then they (the Christian Missionaries) provided that."***– A Male PWD.**

Findings from KIIs with different stakeholders and FGDs with FHPs also revealed that each year, the government allocate certain amount of money as disability allowances for the PWDs. Also free treatment, including free medicines and services from therapist or specialist, was provided to them. Moreover, wheelchairs, white sticks and hearing aids were provided to the PWDs from the government and the NGOs. Some of the respondents' shared that although the PWDs were provided with allowances and facilities, but those were not enough for these vulnerable people.

> "*The disability allowance that government provides is very poor/ insufficient. This allowance is very low for a person to survive in his regular life.*" – **A Government Frontline Health Provider.**

Disability allowance and benefits received by PWDs

Findings from KIIs with government and NGO stakeholders revealed that the government has budget for the PWDs. Ministry of Social Welfare of Bangladesh was giving the allowance through *Somaj Seba Office*.

> *"We keep BDT 1-2 lacs per year from ADB's allocation for our Upazila Parishad for the purpose of providing service to the disabled people."***- A Government Stakeholder.**

Findings from both IDIs with PWDs and FGDs with community people identified that most of the PWDs were deprived in getting benefits or disability allowances. Some of the male PWDs (n=8) and few female PWDs (n=3)

mentioned that they were receiving the disability allowance. However, most of the PWDs and their families were not clear about the source and the purpose of the allowances they received. One of the PWD's family member mentioned that he did not know that hearing loss is a disability and the PWDs needed special care; so, they did not try to get the disability allowance. Besides, mother-in-law of a female PWD shared that they got a house for her daughter-in-law which was provided by Caritas (a charity organization). Those who had informed about receiving disability allowance, the amount was varied, and the month of getting the allowances were also different case by case.

> *"There is a card for disability allowance, I collected that disable allowance card, and also got money. I got money from college through application, got money from social service office. I got money during studying in class eight (VIII) until HSC (class XII). I got BDT 2700 two times per year when I was the student of SSC (class X); and got BDT 3600 when I was the student of HSC (class XII). This money was provided by cash or cheque."* **- A Male PWD.**

Most of the female PWDs did not get any disability allowance. Some of the PWDs mentioned that they were not sure whether they were receiving widow allowance or disability allowance. However, they were very sure that the amount they received for whatever purposes, was less than the amount originally sanctioned.

> "*My husband has **defect** (complication) in his hand. I have got the card because of my husband. One (herself) is **kana** (blind), and another one (husband) is **khora** (lame). How do we earn money? We make card for disability allowance…I have card from Pouroshova, got BDT 3000 after six months. What I know, disability allowance is may be BDT 6000. They gave me BDT 3000, but they gave BDT 4000 to others."*- **A Female PWD.**

IX. Family planning (FP), antenatal care (ANC) and delivery care seeking among married women of reproductive age (MWRA) group (with/without any disability)

Any family planning method use was higher among women without disability than women with disability (75.3% vs. 65.7%). Similar findings were observed after narrowing it down to any modern method use, which was 71.1% and 59.3% among the women without disability, and the women with disability respectively (Table 7).

Regarding antenatal care visits, 87% of the women had at least one ANC in the last one year; while about 58% of the women had 4 or more ANC among those who had at least one ANC. Concerning delivery and newborn care, 59% of the women had a delivery by a skilled birth attendant in last one year, and 44% of the women had at least one PNC visit in last one year. Due to very low cell count and large confidence interval we would not interpret these results disaggregated by disability (Table 11).

Table 11: Family Planning, Antenatal Care, and Delivery Care Seeking among Married Women of Reproductive Age (With/Without Any Disability) in Barishal and Khulna Divisions, 2019-2020

		UNWEIGHTED									WEIGHTED		
		Person without disability			Person with disability			Total			Total		
		n	%	CI	n	%	CI	n	%	CI	n	%	CI
Family planning	Using any FP method	250	75.3	(70.3, 79.8)	113	65.7	(58.1, 72.8)	363	72.0	(67.9, 75.9)	481	74.9	(71.4, 78.2)
	Using modern FP method	236	71.0	(65.9, 75.9)	102	59.3	(51.6, 66.7)	338	67.1	(62.8, 71.2)	453	70.6	(67.0, 74.0)
Antenatal care	Who had ANC in last 1 year	28	87.5	(71.0, 96.5)	3	60.0	(14.7, 94.7)	31	83.8	(68.0, 93.8)	53	87.2	(75.8, 93.7)
	Who had 4 and more ANC in last 1 year among those who had at least 1 ANC	16	57.1	(37.2, 75.5)	3	100.0		19	61.3	(42.2, 78.2)	30	57.5	(42.3, 70.2)
Delivery	Who had a delivery by skilled birth attendant	19	59.4	(40.6, 76.3)	1	20.0	(0.5, 71.6)	20	54.0	(36.9, 70.5)	35	58.9	(45.8, 70.9)
Postnatal care	Who had postnatal care after delivery	14	43.7	(26.4, 62.3)	1	20.0	(0.5, 71.6)	15	40.5	(24.8, 57.9)	26	43.5	(31.3, 56.5)

X. Cost for care seeking due to any illness in last 30 days

Distribution of cost varied between the two groups, person without disability and person with disability, during different phases of treatment in last 30 days. Costs included provider's cost, facility cost, consultation fee cost, medicine cost and transport cost, and all showed similar change trends (Table 12).

Out of all the distributions, highest median medicine cost was similar for both, person without disability and person with disability, 500 BDT (IQR:200-1100, and IQR:200-1075 respectively). The other costs had lowest value in case of consultation fee which is 0 BDT (IQR:0- 200) for person without disability and 1 BDT (IQR:0-100) for person with disability. No significant differences were observed in provider cost, facility cost and transport cost between the two groups (Table 12).

Table 12: Cost for Care Seeking Due to Any Illness in Last 30 Days in Barishal and Khulna Divisions, 2019-2020

Treatment items	Cost for care seeking due to any illness in last 30 days			
	Person without disability (n=511)		Person with disability (n=548)	
	BDT (median)	IQR	BDT (median)	IQR
Provider	12	(1, 12)	12	(1,12)
Facility	35	(34, 36)	35	(34, 36)
Consultation fee	0	(0, 200)	1	(0, 100)
Medicine	500	(200, 1100)	500	(200, 1075)
Transport	30	(0,100)	25	(0,100)

Findings from qualitative study

Cost of treatment

Cost of treatment was closely associated with the care seeking pattern of the people particularly the PWDs and their families. A significant number of respondents participated in the IDIs & FGDs considered cost as a barrier for accessing health care. People in the rural areas usually went to nearby village doctors, local pharmacists, and drug sellers because of their minimum consultation fees. Usually it costs BDT 50; if the above providers were called at home during night time, it costs BDT 150. Sometimes the village doctors do not charge anything (free of cost), if the families were known to them. Most of the time, these people had to spend much money for buying medicines according to the village doctor's prescription. In addition, the general people including the families of PWDs spent lot of money on the traditional healers though they realized their mistakes whenever it did not work.

People who are not economically solvent went to the government health facilities, particularly at CC and UHC where they received free services and free medicines. Some of the community members participated in the FGDs reported that it only costs BDT five (5) to ten (10) for purchasing the outdoor ticket to visit the doctor at

government health facility. But most often they did not get the medicines rather they had to buy the medicines from local pharmacy by spending extra money. Husband of a female PWD shared that some informal payment like, for using trolley or wheelchair, exists in government health facilities. They had to pay BDT 100 for using the trolley/wheelchair though it was not the rule. Besides, people who were living in remote areas had to spend more to visit the health facilities distant from their home. In those cases, additional costing was added for transportation (ambulance in emergency cases), patient admission, accommodation, and food for patient's attendants.

People who were economically solvent, went to private clinics or doctors' chambers although the consultation fee costs between BDT 500 to 1000. Some of the family members of PWDs mentioned that they tried their best in seeking care for their disable family members and even some of them spent BDT 200,000 to 700,000 for their treatment.

> *"We went to Sunil Babu at Bagerhat……, it costs BDT 40/50 for one person to go there…. so BDT 80 for up and down ……there is also extra expenses, like for buying betel leaf, cigarette (**pan, biri cigarette**)….in the last four years I have spent BDT 700,000 (seven lacs) for her treatment. …It is not possible for me to go to Dhaka, I cannot afford the expenses to visit Dhaka. May be there is free treatment in the government hospitals in Dhaka, but food and transportation are not free for us. So, usually (we) go to nearby (facilities), as it is not possible to visit distant places.*"- **Husband of one female PWD.**

XI. Hindering or facilitating factors for person with disability

Environmental factor

All the person with disability (n-1444) were asked about the difficulties or easiness related to various environmental factors they might have experienced. More than half of them have not experienced any difficulties, or have experienced least difficulties to socialize and engage in community activities, to use the shops, banks and post office in neighborhood, to use transportation, to live in the dwelling, to use toilet of the dwelling, temperature, terrain, and climate of the place of living, and lighting, noise, and crowds in surroundings. However, nearly one-fourth (21.9%) of the respondents faced difficulties to use health facilities regularly, and one-fifth (19.6%) to use transportation (Table 13).

Table 13: Difficulties/Easiness Due to Different Environmental Factors Experienced by Person with Disability in Barishal and Khulna Divisions, 2019-2020

Types of difficulties (n=1444)	Very easy (%)	Little bit difficult (%)	Medium difficult (%)	Difficult (%)	Very difficult (%)	Don't know (%)	N/A (%)
Difficulties of workplace or educational institution to work or learn	10.8	13.1	9.3	11.6	16.8	0.0	38.4
Difficulties to use health facilities regularly	24.9	16.8	20.6	13.2	**21.9**	0.1	2.5
Difficulties of places to socialize and engage in community activities	**26.2**	**30.5**	10.7	12.2	16.9	0.2	3.3
Difficulties to use shops, banks and post office in neighborhood	**33.0**	**27.1**	9.1	10.5	17.2	0.1	3.0
Difficulties of worship by the regular places of worship	29.4	11.2	7.3	6.9	9.7	0.0	35.5
Difficulties of using transportation	**32.7**	**20.4**	12.1	12.8	**19.6**	0.0	2.4
Difficulties of living in the dwelling	**59.2**	**16.3**	8.2	6.4	8.6	0.0	1.3
Difficulties of using toilet of the dwelling	**54.5**	**15.8**	9.3	7.1	11.9	0.0	1.4
Difficulties of living caused by the temperature, terrain, and climate of the place of living	**67.9**	**14.8**	7.5	3.5	4.9	0.1	1.2
Difficulties of living caused by the lighting, noise, and crowds in surroundings	**40.9**	**26.2**	10.5	9.3	10.7	0.3	2.1

Attitudes of people around the person with disability

About half of the respondents with disability did not face much problem and can participate in family decisions (47.6%), can make own choices about day-to-day life (52.2%), can make big decisions in life (49.9%), and are being valued by other people (44.7%). However, around 50.0% of the person with disability experienced problems in getting involved in the society because of the attitude of his/her surroundings, and around half of the respondents considered themselves as a burden of the society. Around 90.0% of the respondents' experienced more or less difficulties in accessing any information (Table 14).

Table 14: Attitudes of People around the Person with Disability in Barishal and Khulna Divisions, 2019-2020

Types of difficulties (n=1444)	Not at all (%)	Few time (%)	Some times (%)	Most of the time (%)	Yes, completely (%)	Don't know (%)	N/A (%)
Participated in family decisions	19.7	7.7	10.6	11.6	**47.6**	0.1	2.6
Experienced problems to get involved in society because of the attitudes of surrounding people	**49.3**	13.1	12.5	9.0	13.9	0.0	2.1
Making own choices about day-to-day life	16.7	6.3	9.1	13.3	**52.2**	0.0	2.4
Making big decisions in life	18.3	5.7	9.3	14.3	**49.9**	0.1	2.4
Respected by other people (valued by others as a person)	15.5	8.7	11.1	17.2	**44.7**	0.3	2.5
Considered him/herself as a burden of the society	**55.5**	11.7	11.1	9.4	10.1	0.3	1.9
Difficulties in accessing information	8.3	**17.6**	**23.3**	**16.6**	**28.3**	3.9	2

Findings from qualitative study

Attitudes of the society members towards the person with disability

Societal negligence was commonly experienced by the PWDs in their community. They were neglected both inside and outside of the family. In some cases, the PWDs stopped doing normal activities because of being neglected from different areas, like, schools, colleges, offices, and relatives' houses. PWDs experienced bullying while studying in educational institutions and working in offices. They were being excluded from any higher level work in the society and from social gatherings.

> *"I have faced various types of obstacles in every step of my life. After completing my HSC (twelve grade study) I appeared in the admission test and qualified to study in the department of Social Work at the*

Government B. M. College. I was interested to study that subject. But the Chairman of the College told me, 'very smart boys would study here!' I really felt bad that only that type of people would study there. Then I got admitted in the department of Sociology." **- A Male PWD.**

XII. Self-care, citizen participation, education and working

More than half of the person with disability usually did not experience difficulties in eating (69.9%) or toileting (51.5%). More than 40.0% of the respondents did not face any difficulties in self-cleaning, dressing, looking after own health, eating well, exercising, and/or taking medicines. Around 70.0% of the respondents with disability experienced difficulties to use public or private transport (Table 15).

Table 15: Self-Care, Citizen Participation, Education and Working of the Person with Disability in Barishal and Khulna Divisions, 2019-2020

Types of difficulties (n=1444)	Not at all (%)	Few time (%)	Some times (%)	Most of the time (%)	Yes, completely (%)	Don't know (%)	Not applicable (%)
Self-cleaning and dressing	**43.2**	13.8	11.6	13.2	15.7	0.1	2.4
Eating	**69.9**	8.7	5.4	5.8	8.9	0.0	1.2
Toileting	**51.5**	14.7	12.5	8.0	12.0	0.0	1.2
Cutting self-toenails	34.4	10.8	16.2	11.8	**24.4**	0.0	2.4
Looking after own health, eating well, exercising or taking medicines	**43.6**	16.8	14.3	10.6	12.5	0.0	2.2
Engaging in local or national politics and in civil society organizations	11.0	3.9	1.8	2.7	3.3	0.0	77.3
Voting in the last elections	**40.0**	9.3	3.6	6.7	8.6	0.6	31.2
Applying for and getting a job	3.5	0.9	2.8	2.1	3.9	0.1	86.8
Getting a formal or informal education	5.9	**26.1**	1.7	3.1	3.1	0.4	59.7
Using public or private transportation	29.8	**19.9**	**12.9**	**15.0**	**19.9**	0.0	2.4

Findings from qualitative study

Self-care, education and working of PWDs

The persons with **speech** impairment and **hearing** impairment did not need help for performing their daily routine activities. However, most of the persons with **general movement & self-care** impairment, **hand** movement impairment and **vision** impairment needed regular assistance for doing the daily routine activities of everyday life. As a result, those PWDs and their families were living a more miserable life.

> "*When (he) goes to bathroom, we have to help him to pour water, as he cannot move. Have to give the plate of food on his lap, help him to wash his hands; someone has to pour water on his hand after taking food.*" - **A Mother of Male PWD.**

Some informants and their family members mentioned that performing simple daily tasks for living, such as taking shower, dressing up, going to toilet, and taking meal were very difficult for them, or it took longer than normal to perform those tasks. In majority of the cases, they required assistance from others.

> "*(She) is unable to go to toilet for the difficulty of her hand, I used to clean the dirt of her stool and urine, bathe her, and look after her for everything... (She) can't do anything. By using hot water in* ***bodna*** *(water pot) I try to clean her as much as possible.*" **– Husband of a female PWD**.

XIII. Experience of recent visit to healthcare providers

Regarding the experience of the most recent visit to healthcare provider, 44.8% of the respondents with disability rated their waiting time as good, and more than one-third (37.4%) rated the experience of waiting time as bad/very bad. However, three-fourths (75.4%) of the respondents had good impression regarding healthcare providers explaining effort. Four-fifths (79.2%) of the respondents were impressed with the facility to talk privately with the healthcare providers. Majority (84.0%) of the respondents were satisfied with the behavior of the healthcare providers (Table 16).

Table 16: Experience of Recent Visit to Healthcare Providers by the Person with Disability in Barishal and Khulna Divisions, 2019-2020

Experience of recent visit to the healthcare provider (n=1444)	Very good (%)	Good (%)	Neither good nor bad (%)	Bad (%)	Very bad (%)
Waiting time before being attended by the healthcare provider	**5.4**	**39.4**	17.8	23.1	14.3
Explained clearly by the healthcare provider	9.7	**65.7**	17.8	5.1	1.7
Health services ensured to talk privately to the provider	11.1	**68.1**	16.1	4.3	0.3
Satisfied with the behavior of the healthcare provider	13.4	**70.6**	12.3	2.7	1.0

XIV. Satisfaction with different aspects of life

Level of satisfaction and dissatisfaction were found almost equal regarding personal health (40.8% vs. 43.6%) and ability to perform daily living activities (40.1% vs. 44.3%) among the PWDs. Around three-fourths (72.5%) of the PWDs were satisfied with their personal relationship, while half (51.5%) of the respondents were satisfied with themselves. Three-fourths (73.1%) of the respondents were satisfied with the conditions of their living place (Table 17).

Table 17: Satisfaction with Different Aspects of Life of the Person with Disability in Barishal and Khulna Divisions, 2019-2020

Satisfaction with different aspects of life (n=1444)	Very satisfied (%)	Satisfied (%)	Neither satisfied nor dissatisfied (%)	Dissatisfied (%)	Very dissatisfied (%)
Satisfied with personal health	5.7	35.1	15.6	29.6	14.0
Satisfied with self-ability to perform daily living activities	5.0	35.1	15.7	28.3	16.0
Satisfied with self	7.2	44.3	14.8	22.2	11.6
Satisfied with personal relationships	**16.1**	**56.4**	10.2	11.6	5.6
Satisfied with the conditions of living place	**15.3**	**57.8**	11.3	10.2	5.4

HEALTH FACILITY SURVEY

I. Distribution of health facilities

In total, 55 health facilities were visited as part of the health facility survey. Number of health facilities were chosen equally from the two divisions (Barishal and Khulna). Distribution of the facilities among the total 55 health Centers were as follows: one medical college hospital, five (5) District Hospitals (DH), five (5) Upazila Health Complexes (UHC), five (5) Mother and Child Welfare Centers (MCWC), five (5) Union sub-Centers, seven (7) Union Health and Family Welfare Centers (UH&FWC), nine (9) Community Clinics (CC), nine (9) NGO clinics, and nine (9) private hospitals. Urban and rural distribution were nearly equal, urban vs. rural was 29 vs. 26 (Table 18).

Table 18: Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

Types of health facilities	Number of health facilities surveyed (n)
Medical College Hospital	1
District Hospital (DH)	5
Upazila Health Complex (UHC)	5
Mother and Child Welfare Center (MCWC)	5
Union Health and Family Welfare Center (UH&FWC)	7
Union Sub-Center (UnSC)	5
Community Clinic (CC)	9
NGO clinic	9
Private hospital	9
Division	
Barishal	28
Khulna	27
Location	
Urban	29
Rural	26
Total	**55**

Initially, we identified 74 facilities for the health facility survey. But during conducting the survey, we could not have reached out to 19 facilities because of unavailability/stoppage of service provision of those facilities in the selected areas. This included six (6) NGO clinics, seven (7) private clinics, four (4) union sub-centers, and two (2) Union Health & Family Welfare Centers (UH&FWCs) in seven (7) upazilas, namely Monpura, Galachipa, Kalapara, Shyamnagar, Koyra and Dacope. Absence of facilities list is provided in the Table below (Table 19).

Table 19: Health Facilities Could Not Have Reached Out During Conducting the Survey in Barishal and Khulna Divisions, 2019-2020

Upazila	NGO	Private Clinic	Union Sub Center	UH&FWC
Monpura		Absent	Absent	Absent
Galachipa	Absent	Absent		Absent
Kalapara	Absent	Absent		
Patharghata	Absent	Absent	Absent	
Shymnagar	Absent	Absent	Absent	
Koyra	Absent	Absent	Absent	
Dacope	Absent	Absent		

II. Availability of basic client services

Out of total 55 health facilities surveyed, almost all facilities (92.7%) provided child curative care services, where the major share was by the government and NGO hospitals. Only half (55.6%) of the private hospitals provided this service. Similar findings were observed regarding other services as well, including child growth monitoring services (79.6%), where major contribution was by the government and NGO hospitals. Only two out of ten (22.2%) of the private hospitals had child growth monitoring services. Other significant basic services available in the facilities were child vaccination services (76.4%), modern family planning method services provision (92.7%), and antenatal care services (98.2%). Normal vaginal delivery (NVD) services was available in around two-thirds of all the facilities (63.6%). Among all the facilities, 40.0% had all basic services with normal vaginal delivery, and 27.3% had all basic services without normal vaginal delivery. Community clinics and private hospitals had the lowest share (11.1%) in providing the latter two services (Table 20).

Table 20: Availability of Basic Client Services in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

	Total (n)	Child curative care		Child growth monitoring services		Child vaccination services		Any modern method for FP		Antenatal care services		Normal vaginal delivery (NVD)		All basic services with NVD		All basic services without NVD	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	55	51	92.7	43	79.6	42	76.4	51	92.7	54	98.2	35	63.6	22	40.0	15	27.3
Types of facilities																	
Medical College Hospital	1	1	100.0	1	100.0	1	100.0	1	100.0	1	100.0	0	0.0	0	0.0	1	100.0
District Hospital (DH)	5	5	100.0	5	100.0	5	100.0	5	100.0	5	100.0	5	100.0	5	100.0	0	0.0
Upazila Health Complex (UHC)	5	5	100.0	5	100.0	5	100.0	5	100.0	5	100.0	5	100.0	5	100.0	0	0.0
Mother and Child Welfare Center (MCWC)	5	5	100.0	4	100.0	5	100.0	5	100.0	5	100.0	5	100.0	4	80.0	0	0.0
Union Health And Family Welfare Center (UH&FWC)	7	7	100.0	6	85.7	5	71.4	7	100.0	7	100.0	5	71.4	2	28.6	2	28.6

Union Sub-center (UnSC)	5	5	100.0	3	60.0	4	80.0	2	40.0	5	100.0	2	40.0	1	20.0	1	20.0
Community Clinic	9	9	100.0	9	100.0	9	100.0	9	100.0	9	100.0	1	11.1	1	11.1	8	88.9
NGO Clinic	9	9	100.0	8	88.9	7	77.8	9	100.0	9	100.0	4	44.4	3	33.3	3	33.3
Private Hospital	9	5	55.6	2	22.2	1	11.1	8	88.9	8	88.9	8	88.9	1	11.1	0	0.0
Division																	
Barishal	28	25	89.3	19	70.4	19	67.9	26	92.9	28	100.0	19	67.9	9	32.1	6	21.4
Khulna	27	26	96.3	24	88.9	23	85.2	25	92.6	26	96.3	16	59.3	13	48.1	9	33.3
Location																	
Urban	29	26	89.7	21	75.0	21	72.4	29	100.0	29	100.0	24	82.8	16	55.2	3	10.3
Rural	26	25	96.2	22	84.6	21	80.8	22	84.6	25	96.2	11	42.3	6	23.1	12	46.2

III. Availability of basic amenities

In regards to availability of basic amenities in the health facilities surveyed in Barishal and Khulna divisions, it was found that among 55 facilities, only 18.2% had regular electricity supply; the Union Sub Centres and Community Clinics had no regular electric supply. 81.8% of all the facilities had improved water sources, and 80.0% had visual and auditory privacy. About two-thirds (61.8%) of the total facilities had client latrine and communication equipment. None of the Union Sub Centers and community clinics had any communication equipment while only 14.3% of the Union Health and Family Welfare Centers (UH&FWC) had communication equipment. Around three-fourths (72.7%) of the total facilities had computer with internet, while the Union Health and Family Welfare Centers (UH&FWC) had no computer with internet though 40.0% of the Union sub-centers and 66.7% of the community clinics had computer with internet. More than half (52.7%) of the total facilities had emergency transport services, and 43.6% had separate latrine for female clients. The union sub-centers and the community clinics had no separate latrines for female clients (Table 21).

Table 21: Availability of Basic Amenities in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

	Total (n)	Regular electricity		Improved water source		Visual and auditory privacy		Client latrine		Communication equipment		Computer with internet		Emergency transport		Separate latrine for female clients	
Total	55	10	18.2	45	81.8	44	80.0	34	61.8	34	61.8	40	72.7	29	52.7	24	43.6
Types of facilities		**n**	%	**n**	%	**n**	%	**n**	%	**n**	%	**n**	%	**n**	%	**N**	%
Medical College Hospital	1	1	100.0	1	100.0	1	100.0	1	100.0	1	100.0	1	100.0	1	100.0	1	100.0
District Hospital (DH)	5	2	40.0	5	100.0	3	60.0	4	80.0	5	100.0	5	100.0	5	100.0	4	80.0
Upazila Health Complex (UHC)	5	1	20.0	5	100.0	2	40.0	4	80.0	5	100.0	5	100.0	4	80.0	2	40.0
Mother and Child Welfare Center (MCWC)	5	2	40.0	5	100.0	5	100.0	5	100.0	5	100.0	5	100.0	5	100.0	4	80.0
Union Health And Family Welfare Center (UH&FWC)	7	1	14.3	5	71.4	7	100.0	3	42.9	1	14.3	0	0.0	1	14.3	2	28.6
Union Subcenter (UnSC)	5	0	0.0	4	80.0	3	60.0	2	40.0	0	0.0	2	40.0	1	20.0	0	0.0
Community Clinic (CC)	9	0	0.0	3	33.3	5	55.6	2	22.2	0	0.0	6	66.7	1	11.1	0	0.0

NGO Clinic	9	1	11.1	8	88.9	9	100.0	5	55.6	8	88.9	9	100.0	6	66.7	7	77.8
Private Hospital	9	2	22.2	9	100.0	9	100.0	8	88.9	9	100.0	7	77.8	5	55.6	4	44.4
Division																	
Barishal	28	2	7.1	25	89.3	23	82.1	16	57.1	16	57.1	20	71.4	14	50.0	11	39.3
Khulna	27	8	29.6	20	74.1	21	77.8	18	66.7	18	66.7	20	74.1	15	55.6	13	48.1
Location																	
Urban	29	8	27.6	29	100.0	25	86.2	24	82.8	29	100.0	27	93.1	23	79.3	19	65.5
Rural	26	2	7.7	16	61.5	19	73.1	10	38.5	5	19.2	13	50.0	6	23.1	5	19.2

IV. Availability of basic equipment

Out of total 55 health facilities surveyed in both the divisions, above ninety percent of the facilities had availability of basic equipment that includes, adult scale (92.7%), child scale (65.5%), and infant scale (65.5%). Among the other basic equipment used in facilities, the higher percentage were for stethoscope (96.4%), BP apparatus (96.4%) and thermometer (81.8%). Less than half of the facilities (45.5%) had light source, which was lowest in the UH&FWCs (14.3%) and in community clinics (11.1%) (Table 22).

Table 22: Availability of Basic Equipment in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

	Total (n)	Adult scale		Child scale		Infant scale		Thermometer		Stethoscope		BP apparatus		Light source	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%
Total	55	51	92.7	36	65.5	36	65.5	45	81.8	53	96.4	53	96.4	25	45.5
Types of facilities															
Medical College Hospital	1	1	100.0	1	100.0	1	100.0	1	100.0	1	100.0	1	100.0	1	100.0
District Hospital (DH)	5	5	100.0	4	80.0	5	100.0	4	80.0	5	100.0	5	100.0	3	60.0
Upazila Health Complex (UHC)	5	4	80.0	3	60.0	3	60.0	5	100.0	5	100.0	5	100.0	1	20.0
Mother and Child Welfare Center (MCWC)	5	5	100.0	4	80.0	5	100.0	3	60.0	5	100.0	5	100.0	2	40.0
Union Health And Family Welfare Center (UH&FWC)	7	7	100.0	4	57.1	1	14.3	2	28.6	7	100.0	7	100.0	1	14.3
Union Subcenter (UnSC)	5	2	40.0	3	60.0	1	20.0	4	80.0	4	80.0	4	80.0	1	20.0
Community Clinic (CC)	9	9	100.0	7	77.8	7	77.8	9	100.0	9	100.0	9	100.0	1	11.1
NGO Clinic	9	9	100.0	5	55.6	8	88.9	9	100.0	8	88.9	8	88.9	8	88.9
Private Hospital	9	9	100.0	5	55.6	5	55.6	8	88.9	9	100.0	9	100.0	7	77.8

Division																
	Barishal	28	27	96.4	13	46.4	17	60.7	21	75.0	27	96.4	27	96.4	12	42.9
	Khulna	27	24	88.9	23	85.2	19	70.4	24	88.9	26	96.3	26	96.3	13	48.1
Location																
	Urban	29	29	100.0	19	65.5	25	86.2	25	86.2	29	100.0	29	100.0	19	65.5
	Rural	26	22	84.6	17	65.4	11	42.3	20	76.9	24	92.3	24	92.3	6	23.1

V. Laboratory diagnostic capacity

Overall, the capacity of health facilities to perform basic laboratory diagnostic tests were very limited. Facilities are most likely to have the capacity to measure blood glucose; however, out of five facilities, this test was offered only at two facilities. 11% of the facilities perform all five of the basic diagnostic tests, which was higher than the findings observed in the Bangladesh Health Facility Survey 2017 (4% only) [16]. Advanced laboratory diagnostic tests and equipment for diagnostic imaging were mostly available at medical college hospital, district hospitals, UHCs, NGO facilities, and private hospitals. Private hospitals were more likely than other types of facilities to provide many of the advanced diagnostic tests (Table 23).

Table 23: Laboratory Diagnostic Capacity in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

Laboratory tests	Total (N=55)		Health facilities												Division				Location			
			Medical Collage Hospital		District Hospital (DH)		Upazila Health complex (UHC)		Maternal and Child Welfare Center (MCWC)		NGO Clinic		Private Hospital		Barishal		Khulna		Urban		Rural	
	n	%	n	%	n	%	n	%	N	%	n	%	n	%	n	%	n	%	n	%	n	%
Basic tests																						
Hemoglobin	16	29.1	1	100.0	5	100.0	2	40.0	0	0.0	3	33.3	5	55.6	7	25.0	9	33.3	15	51.7	1	3.8
Blood glucose	22	40.0	1	100.0	5	100.0	2	40.0	0	0.0	6	66.7	6	66.7	12	42.8	10	37.0	19	65.5	3	11.5
Urine protein	10	18.2	0	0.0	1	20.0	1	20.0	0	0.0	4	44.4	4	44.4	7	25.0	3	11.1	9	31.03	1	3.85
Urine glucose	10	18.2	1	100.0	1	20.0	1	20.0	0	0.0	4	44.4	4	44.4	7	25.0	3	11.1	9	31.03	1	3.85
Syphilis rapid diagnostic test	14	25.4	1	100.0	4	80.0	1	20.0	0	0.0	3	33.3	5	55.6	5	17.8	9	33.3	13	44.8	1	3.8

General microscopy	12	21.8	1	100.0	3	60.0	2	40.0	0	0.0	1	11.1	5	55.6	5	17.8	7	25.9	11	37.9	1	3.8
Urine pregnancy test	15	27.2	1	100.0	4	80.0	1	20.0	0	0.0	3	33.3	6	66.7	8	28.5	7	25.9	14	48.2	1	3.8
Liver or renal function test (ALT or creatinine	15	27.2	1	100.0	4	80.0	1	20.0	0	0.0	3	33.3	6	66.7	8	28.5	7	25.9	14	48.2	1	3.8
All 5 basic tests available	6	10.9	0	0.0	1	20.0	1	20.0	0	0.0	1	11.1	3	33.3	4	14.3	2	7.4	5	17.2	1	3.85
Advanced-level diagnostic tests																						
Full blood count with differentials	12	21.8	1	100.0	3	60.0	0	0.0	0	0.0	4	44.4	4	44.4	5	17.8	7	25.9	11	37.9	1	3.8
Blood typing and cross matching	20	36.3	1	100.0	5	100.0	2	40.0	0	0.0	6	66.7	6	66.7	11	39.2	9	33.3	19	65.5	1	3.8
Syphilis serology	7	12.7	0	0.0	1	20.0	2	40.0	0	0.0	2	22.2	2	22.2	2	7.1	5	18.5	6	20.6	1	3.8
Gram stain	6	10.9	0	0.0	1	20.0	2	40.0	0	0.0	0	0.0	3	33.3	3	10.7	3	11.1	6	20.6	0	0.0
Stool microscopy	15	27.2	1	100.0	5	100.0	2	40.0	0	0.0	1	11.1	6	66.7	8	28.5	7	25.9	14	48.2	1	3.8
CSF/body fluid counts	16	29.1	1	100.0	4	80.0	2	40.0	0	0.0	5	55.6	4	44.4	7	25.0	9	33.3	15	51.7	1	3.8
TB culture	2	3.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	22.2	1	3.5	1	3.7	2	6.9	0	0.0
TB rapid diagnostic test	1	1.8	0	0.0	0	0.0	1	20.0	0	0.0	0	0.0	0	0.0	0	0.0	1	3.7	1	3.4	0	0.0
Equipment for diagnostic imaging																						
X-ray machine	8	14.5	1	100.0	1	20.0	2	40.0	0	0.0	0	0.0	4	44.4	4	14.2	4	14.8	8	27.5	0	0.0
Ultrasonography	12	21.8	1	100.0	4	80.0	0	0.0	0	0.0	2	22.2	5	55.6	5	17.8	7	25.9	11	37.3	1	3.8
CT scan	3	1.0	1	100.0	1	20.0	0	0.0	0	0.0	0	0.0	1	11.1	0	0.0	3	11.1	3	10.3	0	0.0

VI. Availability of essential medicines

Consistent handiness of essential medicines is critical to the delivery of quality health services. Overall, Amoxicillin tablets/capsules were the most widely available of these essential medicines; 69.1% of the facilities had Amoxicillin tablets/capsule available on the day of the survey. Rural health facilities (around 90%) were more likely than the urban hospitals (23%) to have Amoxicillin tablets/capsules. Paracetamol oral suspension were the next most widely available of the essential medicines. Amitriptyline tablets, captopril tablets, glibenclamide tablets, and simvastatin tablets were least available; less than 10% of the facilities had these essential medicines (Table 24).

Table 24: Availability of the Essential Medicines in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

	Health Facilities																		Division				Location			
Essential medicines	**Total (N=55)**		**MCH**		**DH**		**UHC**		**MCWC**		**UH&FWC**		**UnSC**		**CC**		**NGO Clinic**		**Private Clinic**		**Barishal**		**Khulna**		**Urban**		**Rural**	
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Amitriptyline tab/cap	3	5.4	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	22.2	0	0.0	3	11.1	2	6.9	1	3.9
Amoxicillin tab/cap	38	69.1	1	100.0	4	80.0	4	80.0	4	80.0	7	100.0	3	60.0	9	100.0	4	44.4	2	22.2	18	64.3	20	74.1	15	51.7	23	88.5
Atenolol tab/cap	7	12.7	1	100.0	3	60.0	1	20.0	0	0.0	0	0.0	0	0.0	0	0.0	1	11.1	1	11.1	1	3.6	6	22.2	5	17.2	2	7.7
Captopril tab/cap	1	1.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	11.1	0	0.0	1	3.7	1	3.5	0	0.0
Ceftriaxone injection	17	30.9	1	100.0	4	80.0	3	60.0	0	0.0	0	0.0	1	20.0	0	0.0	4	44.4	4	44.4	10	35.7	7	25.9	13	44.8	4	15.4
Ciprofloxacin tab/cap	20	36.3	1	100.0	4	80.0	3	60.0	0	0.0	1	14.3	4	80.0	0	0.0	3	33.3	4	44.4	11	39.3	9	33.3	12	41.4	8	30.8
Cotrimoxazole oral susp.	15	27.2	0	0.0	0	0.0	2	40.0	4	80.0	7	100.0	0	0.0	0	0.0	1	11.1	1	11.1	7	25.0	8	29.6	7	24.1	8	30.8
Diazepam tab/cap	20	36.3	1	100.0	2	40.0	1	20.0	2	40.0	6	85.7	3	60.0	0	0.0	2	22.2	3	33.3	11	39.3	9	33.3	9	31.0	11	42.3
Diclofenac tab/cap	20	36.3	1	100.0	5	100.0	3	60.0	1	20.0	0	0.0	2	40.0	2	22.2	4	44.4	2	22.2	9	32.1	11	40.7	13	44.8	7	26.9

Glibenclamide tab/cap	1	1.8	0	0.0	1	20.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	3.6	0	0.0	1	3.5	0	0.0
Omeprazole/ cimetidine tab/cap	18	32.7	1	100.0	3	60.0	4	80.0	0	0.0	2	28.6	2	40.0	0	0.0	4	44.4	2	22.2	7	25.0	11	40.7	10	34.5	8	30.8
Paracetamol oral susp.	35	63.6	1	100	5	100.0	4	100.0	3	60.0	5	71.4	2	40.0	5	55.6	7	77.8	3	33.3	20	71.7	15	55.6	18	62.1	17	65.4
Salbutamol inhaler	9	16.3	0	0	2	40.0	2	40.0	1	20.0	1	14.3	1	20.0	0	0.0	1	11.1	1	11.1	4	14.3	5	18.5	5	17.2	4	15.4
Simvastatin/ Atorvastatin tab/cap	6	10.9	1	100	1	20.0	2	40.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	22.2	3	10.7	3	11.1	4	13.8	2	7.7

VII. Availability of family planning (FP) services

91.0% of the total facilities offered any family planning (FP) services including emergency contraceptive pill (ECP) and 89.1% offered any modern FP services including ECP, while these rates were comparatively low in union sub-centers (40.0% and 20.0% respectively). More than two-thirds (69.1%) of the total facilities offered any long acting and permanent methods(LA&PM) combined, and 41.8% of the facilities were offering permanent methods only (male or female sterilization). One-fifth (22.2%) of the NGO clinics offered permanent methods, which was far higher in the private hospitals (77.8%). Overall family planning services provision was comparatively better in urban areas (100.0%) than that of the rural areas (76.9%) (Table 25).

Table 25: Availability of Family Planning Services in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

	Total (n)	Offering any FP (including ECP)		Offering any modern FP (including ECP)		Offering any LA&PM		Offering male or female sterilization	
		n	%	n	%	n	%	n	%
Total	55	50	90.9	49	89.1	38	69.1	23	41.8
Types of facilities									
Medical College Hospital	1	1	100.0	1	100.0	1	100.0	1	100.0
District Hospital (DH)	5	5	100.0	5	100.0	5	100.0	4	80.0
Upazila Health Complex (UHC)	5	4	80.0	4	80.0	4	80.0	4	80.0
Mother and Child Welfare Center (MCWC)	5	5	100.0	5	100.0	5	100.0	5	100.0
Union Health And Family Welfare Center (UH&FWC)	7	7	100.0	7	100.0	7	100.0	0	0.0
Union Subcenter (UnSC)	5	2	40.0	1	20.0	1	20.0	0	0.0
Community Clinic (CC)	9	9	100.0	9	100.0	0	0.0	0	0.0
NGO Clinic	9	9	100.0	9	100.0	8	88.9	2	22.2
Private Hospital	9	8	88.9	8	88.9	7	77.8	7	77.8

Division										
	Barishal	28	25	89.3	24	85.7	18	64.3	9	32.1
	Khulna	27	25	92.6	25	92.6	20	74.1	14	51.9
Location										
	Urban	29	29	100.0	29	100.0	28	96.6	22	75.9
	Rural	26	21	80.8	20	76.9	10	38.5	1	3.8

VIII. Availability of guidelines and basic equipment for family planning services

Nearly half (44%) of the health facilities offered modern FP services had guidelines on family planning at their service site. NGO clinics (89%) and UH&FWCs (71%) were most likely to have FP guidelines while private hospitals were least (0%) likely to have these documents. Availability of FP guidelines also differed by location; 48% of the urban facilities had guidelines, as compared to 38% of the rural facilities. 85% of the facilities had blood pressure machine, while one-third (38%) of the facilities had a pelvic model for IUCDs demonstration and a model for showing condom use (33%). The survey also assessed presence of an examination bed or couch and an examination light, items needed to conduct a quality pelvic examination for FP clients. Four out of five facilities (78%) had an examination bed or couch, and 49% had a light. (Table 26).

Table 26: Availability of Guidelines and Basic Equipment for Family Planning Services in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

	Total (N)	Guidelines on Family Planning		Blood Pressure Apparatus		Examination Light		Examination Bed or Couch		Samples of Family Planning Methods		Pelvic Model for IUCD		Model For Showing Condom Use		Other Family Planning Specific Visual Aid	
		N	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Total	55	24	43.6	47	85.5	27	49.1	43	78.2	28	50.9	21	38.2	18	32.7	26	47.3
Types of facilities																	
Medical College Hospital	1	0	0.0	1	100	1	100.0	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0
District Hospital (DH)	5	2	40.0	4	80	1	20.0	5	100.0	3	60.0	1	20.0	1	20.0	2	40.0
Upazila Health Complex (UHC)	5	3	60.0	4	80	2	40.0	4	80.0	4	80.0	4	80.0	3	60.0	4	80.0
Maternal And Child Welfare Center (MCWC)	5	3	60.0	5	100	3	60.0	5	100.0	5	100.0	1	20.0	1	20.0	4	80.0

Union Health And Family Welfare Center (UH&FWC)	7	5	71.4	7	100	3	42.9	5	71.4	6	85.7	6	85.7	4	57.1	5	71.4
Union Sub-Center (USC)	5	1	20.0	1	20	0	0.0	0	0.0	1	20.0	1	20.0	1	20.0	1	20.0
Community Clinic	9	2	22.2	8	88.9	1	11.1	6	66.7	1	11.1	0	0.0	0	0.0	1	11.1
NGO clinic	9	8	88.9	9	100	8	88.9	9	100.0	8	88.9	8	88.9	8	88.9	8	88.9
Private Hospital	9	0	0.0	8	88.9	8	88.9	8	88.9	0	0.0	0	0.0	0	0.0	1	11.1
Division																	
Barishal	28	12	42.9	23	82.1	12	42.9	22	78.6	14	50.0	8	28.6	8	28.6	14	50.0
Khulna	27	12	44.4	24	88.9	15	55.6	21	77.8	14	51.9	13	48.2	10	37.0	12	44.4
Location																	
Urban	29	14	48.3	28	96.6	21	72.4	29	100.0	17	58.6	11	37.9	10	34.5	16	55.2
Rural	26	10	38.5	19	73.8	6	23.1	14	53.9	11	42.3	10	38.5	8	30.8	10	38.5

IX. Availability of maternal health services

Out of total 55 health facilities surveyed, almost all the facilities provided antenatal care (ANC) service which was a bit higher in urban areas than that of the rural areas. Around two-thirds (63.6%) of the total facilities offered normal vaginal delivery (NVD); while this percentage was lowest at the community clinics (11.1%) followed by union sub-centers (40.0%) and NGO clinics (44.4%). Over three-fourths (82.8%) of the health facilities located in urban areas offered NVD services while only two-fifths (42.3%) of the health facilities located in rural areas did so. More than one-third (36.4%) of the total facilities offer caesarean section. More facilities in Khulna division (44.4%) were offering caesarean section compared to the facilities in Barishal division (28.6%). Two-thirds (65.5%) of the health facilities in urban areas had the provision of conducting caesarean section while only 1 out of 26 (3.8%) of the health facilities in the rural areas had that capacity. Out of the total 55 facilities surveyed in both divisions, nearly two-thirds (61.8%) had combined ANC and NVD services availability; whereas only one-third of the health facilities had ANC, NVD and C-Section combined services availability (Table 27).

Table 27: Availability of Maternal Health Services in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

		ANC		NVD		C-SECTION		ANC and NVD		ANC, NVD, and C-SECTION	
	Total (N)										
		n	%	n	%	n	%	n	%	n	%
Total	55	54	98.2	35	63.6	20	36.4	34	61.8	17	30.9
Types of facilities											
Medical College Hospital	1	1	100.0	0	0.0	1	100.0	0	0.0	0	0.0
District Hospital (DH)	5	5	100.0	5	100.0	5	100.0	5	100.0	5	100.0
Upazila Health Complex (UHC)	5	5	100.0	5	100.0	0	0.0	5	100.0	0	0.0
Mother And Child Welfare Center (MCWC)	5	5	100.0	5	100.0	3	60.0	5	100.0	3	60.0
Union Health And Family Welfare Center (UH&FWC)	7	7	100.0	5	71.4	0	0.0	5	71.4	0	0.0
Union Sub-Center (UnSC)	5	5	100.0	2	40.0	0	0.0	2	40.0	0	0.0
Community Clinic (CC)	9	9	100.0	1	11.1	0	0.0	1	11.1	0	0.0

	NGO Clinic	9	9	100.0	4	44.4	2	22.2	4	44.4	2	22.2
	Private Hospital	9	8	88.9	8	88.9	9	100.0	7	77.8	7	77.8
Division												
	Barishal	28	28	100.0	19	67.9	8	28.6	19	67.9	8	28.6
	Khulna	27	26	96.3	16	59.3	12	44.4	15	55.6	9	33.3
Location												
	Urban	29	29	100.0	24	82.8	19	65.5	24	82.8	17	58.6
	Rural	26	25	96.2	11	42.3	1	3.8	10	38.5	0	0.0

X. Availability of antenatal care (ANC) services

Out of total 55 health facilities, only 40.0% had guidelines on ANC. However, three-fourths (74.5%) of the facilities had trained ANC staff. 85.5% of the total facilities had blood pressure measuring apparatus, 89.1% had stethoscope, another 85.5% had adult weighing scale, 80.0% had examination bed or couch, and 61.8% had measuring tape. Less than one-tenth (9.1%) of the health facilities had fetal stethoscope (Table 28).

Table 28: Availability of Antenatal Care (ANC) Services in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

		Guidelines on ANC		Trained ANC staff		Blood pressure apparatus		Stetho-scope		Adult weighing scale		Fetal stetho-scope		Measuring tape		Exami-nation bed or couch	
	Total (N)	n	%	n	%	n	%	N	%	n	%	N	%	n	%	n	%
Total	55	22	40.0	41	74.5	47	85.5	49	89.1	47	85.5	5	9.1	34	61.8	44	80.0
Types of facilities																	
Medical College Hospital	1	0	0.0	1	100.0	1	100.0	1	100.0	1	100.0	1	100.0	1	100.0	1	100.0
District Hospital (DH)	5	1	20.0	5	100.0	4	80.0	4	80.0	4	80.0	0	0.0	4	80.0	5	100.0
Upazila Health Complex (UHC)	5	2	40.0	4	80.0	5	100.0	5	100.0	5	100.0	1	20.0	3	60.0	5	100.0
Mother and Child Welfare Center (MCWC)	5	4	80.0	5	100.0	5	100.0	5	100.0	4	80.0	0	0.0	4	80.0	5	100.0
Union Health And Family Welfare Center (UH&FWC)	7	4	57.1	5	71.4	7	100.0	7	100.0	7	100.0	0	0.0	4	57.1	5	71.4
Union Subcenter (UnSC)	5	0	0.0	3	60.0	3	60.0	4	80.0	3	60.0	0	0.0	1	20.0	2	40.0
Community Clinic (CC)	9	3	33.3	2	22.2	8	88.9	9	100.0	9	100.0	0	0.0	6	66.7	6	66.7
NGO Clinic	9	8	88.9	7	77.8	9	100.0	9	100.0	9	100.0	2	22.2	7	77.8	9	100.0
Private Hospital	9	0	0.0	9	100.0	5	55.6	5	55.6	5	55.6	1	11.1	4	44.4	6	66.7

Division																		
	Barishal	28	11	39.3	22	78.6	23	82.1	23	82.1	22	78.6	1	3.6	14	50.0	22	78.6
	Khulna	27	11	40.7	19	70.4	24	88.9	26	96.3	25	92.6	4	14.8	20	74.1	22	81.5
Location																		
	Urban	29	12	41.4	27	93.1	25	86.2	25	86.2	24	82.8	4	13.8	20	69	27	93.1
	Rural	26	10	38.5	14	53.8	22	84.6	24	92.3	23	88.5	1	3.8	14	53.8	17	65.4

XI. Readiness of health facilities to provide antenatal care (ANC) services

Although individual readiness items were available at all facilities, only 3.6% of the facilities had all five items/tracer indicators (guidelines on ANC, blood pressure apparatus, hemoglobin test, urine protein test, and iron or folic acid tablets) available as per the WHO recommendations. One-sixth (16%) of the health facilities offering ANC services had the capacity to conduct urine protein testing, which was important for early detection of pre-eclampsia. This was better in the urban areas while rural areas showed unavailability of this services. Similar proportion of (16%) of facilities had the capacity to perform haemoglobin testing, which was necessary to detect anemia. In this regards, urban areas showed better performance (28%) than the rural areas (4%). Nearly half of the facilities (45%) had iron or folic acid tablets and 86% of the facilities had blood pressure apparatus available. No other significant differences were observed among the different indicators while we compared between Barishal and Khulna divisions or between urban and rural areas (Table 29).

Table 29: Readiness to Provide Antenatal Care (ANC) Services in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

	Total (n)	Guidelines on ANC		Blood pressure apparatus		Haemoglobin testing		Urine protein testing		Iron or folic acid tablets		All 5 items		Ultra-sonography	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%
Total	55	22	40.0	47	85.5	9	16.4	9	16.4	25	45.0	2	3.6	3	5.5
Types of facilities															
Medical College Hospital	1	0	0.0	1	100.0	1	100.0	1	100.0	0	0.0	0	0.0	0	0.0
District Hospital (DH)	5	1	0.0	4	80.0	0	100.0	0	0.0	2	40.0	0	0.0	2	40.0
Upazila Health Complex (UHC)	5	2	0.0	5	100.0	1	20.0	1	20.0	1	20.0	0	0.0	0	0.0
Mother and Child Welfare Center (MCWC)	5	4	80.0	5	100.0	2	40.0	2	40.0	4	80.0	1	20.0	0	0.0

Union Health And Family Welfare Center (UH&FWC)	7	4	57.1	7	100.0	0	0.0	0	0.0	6	85.7	0	0.0	0	0.0
Union Subcenter (UnSC)	5	0	0.0	3	60.0	0	0.0	0	0.0	3	60.0	0	0.0	0	0.0
Community Clinic (CC)	9	3	33.3	8	88.9	0	0.0	0	0.0	3	33.3	0	0.0	0	0.0
NGO Clinic	9	8	88.9	9	100.0	1	11.1	1	11.1	6	66.7	1	11.1	1	11.1
Private Hospital	9	0	0.0	5	55.6	3	33.3	4	44.4	0	0.0	0	0.0	0	0.0
Division															
Barishal	28	11	39.3	23	82.1	4	14.3	5	17.8	14	50.0	1	3.5	3	10.7
Khulna	27	11	40.7	24	88.9	5	18.5	4	14.8	11	40.7	1	3.7	0	0.0
Location															
Urban	29	12	41.4	25	86.2	8	27.6	9	32.0	11	37.9	2	6.9	3	10.3
Rural	26	10	38.5	22	84.6	1	3.9	0	0.0	14	53.8	0	0.0	0	0.0

XII. Availability of medicines for routine antenatal care

Iron and/or folic acid supplements were essential for the pregnant women to prevent anemia and improve pregnancy outcomes. Our survey in the coastal area reports the availability of these medicines, which were crucial for the delivery of routine ANC services. The results showed that most of the facilities offered ANC services had at least some essential medicines for ANC available on the day of the survey. Medical college hospital, private hospitals, upazila health complexes, and community clinics were less likely to have these medicines than the other health facilities surveyed. Urban health facilities were more likely than rural facilities to have these medicines available (Table 30).

Table 30: Availavility of Medicines for Routine Antenatal Care in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

	Total (n)	Iron tablets		Folic acid tablets		Combined iron and folic acid		Iron or folic acid tablets	
		n	%	n	%	n	%	n	%
Total	55	21	38.2	19	34.6	38	69.0	25	45.4
Types of facilities									
Medical College Hospital	1	0	0.0	0	0.0	1	100.0	0	0.0
District Hospital (DH)	5	2	40.0	1	20.0	5	100.0	2	40.0
Upazila Health Complex (UHC)	5	1	20.0	0	0.0	5	100.0	1	20.0
Mother and Child Welfare Center (MCWC)	5	2	40.0	4	80.0	3	60.0	4	80.0
Union Health And Family Welfare Center (UH&FWC)	7	5	71.4	6	85.7	7	100.0	6	85.7
Union Subcenter (UnSC)	5	3	60.0	0	0.0	1	20.0	3	60.0
Community Clinic (CC)	9	2	22.2	3	33.3	7	77.8	3	33.3
NGO Clinic	9	6	66.6	5	55.6	8	88.9	6	66.7
Private Hospital	9	0	0.0	0	0.0	1	11.1	0	0.0

Division										
	Barishal	28	10	35.7	9	32.1	19	67.8	14	50.0
	Khulna	27	11	40.7	10	37.4	19	70.3	11	40.7
Location										
	Urban	29	9	31.0	9	31.1	19	65.5	11	37.9
	Rural	26	12	46.1	10	38.4	19	73.0	14	53.8

XIII. Readiness of the health facilities to provide normal delivery services

Twenty percent of the health facilities had a delivery pack, 47% had gloves, and 40% had an examination light (Table 32). Around half of the facilities had a neonatal bag and mask, skin disinfectant and IV fluid with infusion set. Around one-third (29%) had a suction apparatus, while 44% have injectable uterotonic oxytocin. Overall, less than 2% of the facilities had all of the 12 items considered to be essential by WHO to provide BEmOC and CEmOC services (Table 31).

Table 31: Readiness to Provide Normal Delivery Services in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

	Total (n)	Guidelines on BEmOC or CEmOC		Examination light		Delivery pack		Suction apparatus		Neonatal bag & mask		Partograph		Gloves		Injectable oxytocin		Inj. antibiotic		MgSO4		Skin disinfectant		IV fluids with infusion set		All 12 items	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Total	55	5	9.1	22	40.0	11	20.0	16	29.0	28	51.0	14	25.0	26	47.0	24	44.0	22	40.0	16	29.0	26	47.0	31	56.0	1	1.8
Types of facilities																											
Medical College Hospital	1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0
District Hospital (DH)	5	0	0.0	3	60.0	1	20.0	3	60.0	5	100.0	3	60.0	3	60.0	4	80.0	5	100.0	2	40.0	3	60.0	4	80.0	0	0.0
Upazila Health Complex (UHC)	5	2	40.0	2	40.0	2	40.0	1	20.0	5	100.0	4	80.0	5	100.0	5	100.0	3	60.0	3	60.0	5	100.0	3	60.0	0	0.0
Mother and Child Welfare Center (MCWC)	5	1	20.0	4	80.0	2	40.0	3	60.0	4	80.0	3	60.0	4	80.0	5	100.0	4	80.0	2	40.0	5	100.0	5	100.0	0	0.0
Union Health and Family Welfare Center (UH&FWC)	7	0	0.0	1	14.0	3	42.0	0	0.0	3	43.0	0	0.0	4	57.0	0	0.0	1	14.0	0	0.0	4	57.0	5	71.0	0	0.0

Union Subcenter (UnSC)	5	0	0.0	1	20.0	0	0.0	0	0.0	1	20.0	0	0.0	1	20.0	0	0.0	0	0.0	0	0.0	0	0.0	1	20.0	0	0.0
Community Clinic (CC)	9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NGO Clinic	9	2	22.0	4	44.0	1	11.0	3	33.0	4	44.0	4	44.0	4	44.0	4	44.0	3	33.0	3	33.0	4	44.0	8	89.0	1	11.0
Private Hospital	9	0	0.0	7	78.0	2	22.0	6	67.0	6	67.0	0	0.0	5	56.0	6	67.0	6	67.0	6	67.0	5	56.0	4	44.0	0	0.0
Division																											
Barishal	28	1	3.6	11	39.0	2	7.1	10	36.0	16	57.0	7	25.0	15	54.0	12	43.0	13	46.0	7	25.0	11	39.0	16	57.0	0	0.0
Khulna	27	4	15.0	11	41.0	9	33.0	6	22.0	12	44.0	7	26.0	11	41.0	12	44.0	9	33.0	9	33.0	15	56.0	15	56.0	1	3.7
Location																											
Urban	29	4	14.0	18	62.0	8	28.0	14	48.0	21	72.0	12	41.0	19	66.0	21	72.0	18	62.0	14	48.0	19	66.0	21	72.0	1	3.5
Rural	26	1	3.9	4	15.0	3	12.0	2	7.7	7	27.0	2	7.7	7	27.0	3	12.0	4	15.0	2	7.7	7	27.0	10	38.0	0	0.0

XIV. Medicines and commodities for delivery

On the day of the survey, nearly half of the facilities (44%) offered normal delivery services had injectable uterotonics as required for active management of the third stage of labour and postpartum hemorrhage. Availability was fully covered in UHCs (100%) and MCWCs (100%). Facilities were least likely to have injectable magnesium sulphate (22%), which was essential for management of eclampsia. Only 60% of the DHs, 44% of the private hospitals, and 40% of the UHCs had injectable magnesium sulphate. 40% of the total facilities had injectable antibiotics, which were required for management of puerperal sepsis. Half of the facilities (56%) had intravenous (IV) fluids with infusion sets, which were essential for managing severe postpartum haemorrhage. Our survey also provided information on the availability of WHO-defined priority medicines for mothers on the day of the survey. In general, these priority medicines were not widely available, and they were much more likely to be available in higher-level facilities than in lower-level facilities. Moreover, even among the higher-level facilities, there was considerable variation in availability of priority medicines. Sodium chloride injectable solution (44%) and azithromycin capsules or tablets (40%) were the most widely available priority medicines. 38% of the facilities had misoprostol capsules or tablets, which were important for management of postpartum haemorrhage (Table 32).

Table 32: Availability of Medicines and Commodities for Delivery in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

	Total (N=55)		MCH		DH		UHC		MCWC		UH&FWC		UnSC		CC		NGO Clinic		Private Hospital	
	N	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Essential medicines for delivery care																				
Injectable uterotonic (Oxytocin)	24	43.6	0	0.0	4	80.0	5	100.0	5	100.0	0	0.0	0	0.0	0	0.0	4	44.4	6	66.7
Injectable antibiotic	22	40.0	0	0.0	5	100.0	3	60.0	4	80.0	1	14.3	0	0.0	0	0.0	3	33.3	6	66.7
Injectable magnesium sulphate	12	21.8	0	0.0	3	60.0	2	40.0	1	20.0	0	0.0	0	0.0	0	0.0	2	22.2	4	44.4
Injectable diazepam	19	34.6	0	0.0	5	100.0	3	60.0	2	40.0	0	0.0	0	0.0	0	0.0	3	33.3	6	66.7
Skin disinfectant	26	47.3	0	0.0	3	60.0	5	100.0	5	100.0	4	57.1	0	0.0	0	0.0	4	44.4	5	55.6
Intravenous fluids with Infusion Set	31	56.4	0	0.0	5	100.0	5	100.0	5	100.0	4	57.1	1	20.0	0	0.0	4	44.4	7	77.8

Priority medicines for mothers																			
Sodium chloride injectable solution	24	43.6	1	100.0	4	80.0	3	60.0	3	60.0	4	57.1	0	0.0	0	0.0	5	55.6	4	44.4
Injectable calcium gluconate	7	12.7	0	0.0	0	0.0	0	0.0	0	0.0	1	14.3	0	0.0	0	0.0	3	33.3	3	33.3
Ampicillin powder for injection	7	12.7	0	0.0	0	0.0	0	0.0	2	40.0	1	14.3	0	0.0	0	0.0	2	22.2	2	22.2
Injectable metronidazole	16	29.1	0	0.0	4	80.0	3	60.0	2	40.0	0	0.0	0	0.0	0	0.0	3	33.3	4	44.4
Misoprostol capsules or tablets	21	38.2	0	0.0	2	40.0	3	60.0	4	80.0	4	57.1	0	0.0	1	11.1	5	55.6	2	22.2
Azithromycin capsules or tablets or oral liquid	22	40.0	1	100.0	4	80.0	4	80.0	1	20.0	0	0.0	4	80.0	1	11.1	4	44.4	3	33.3
Cefixime capsules or tablets	18	32.7	0	0.0	3	60.0	3	60.0	1	20.0	0	0.0	1	20.0	0	0.0	8	88.9	2	22.2
Benzathine benzyl penicillin powder for injection	7	12.7	0	0.0	2	40.0	0	0.0	0	0.0	0	0.0	1	20.0	2	22.2	2	22.2	0	0.0
Injectable bethamethasone/ dexamethasone	11	20.0	1	100.0	3	60.0	1	20.0	0	0.0	0	0.0	1	20.0	0	0.0	2	22.2	3	33.3
Nifedipine Capsules or Tablets	8	14.6	1	100.0	1	20.0	0	0.0	1	20.0	0	0.0	0	0.0	0	0.0	2	22.2	3	33.3

XV. Signal functions for emergency obstetric care (EmOC)

Nearly 2% of the facilities had performed all nine basic signal functions while 4% had performed seven basic signal functions in the last 3 months before the survey. 20% of the facilities had performed three basic signal functions. All district hospitals, private hospitals, and the medical college hospital offered normal delivery services had performed caesarean section operations in the past 3 months. Around two-thirds of the MCWCs (60%) performed caesarean section opeartions during that period. Khulna division had higher proportion of this services available over Barishal division while urban areas had higher performance than that of the rural health facilities (Table 33).

Table 33: Signal Function for Emoc in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

	Total (N)	Antibiotics		Oxytocin		Anticonvulsants		Assisted Vaginal Delivery		Manual Removal of Placenta		MVA		Neonatal Resuscitation		Blood Transfusion		Caesarean Delivery		Three Signal Functions		Seven Signal Functions		All 9 Signal Functions	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Total	55	25	45.5	29	52.7	12	21.8	3	5.5	18	32.7	15	27.3	30	54.6	14	25.5	19	34.6	11	20.0	2	3.7	1	1.8
Types of facilities																									
Medical College Hospital	1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	1	100.0	0	0.0	0	0.0	1	0.0
District Hospital (DH)	5	5	100.0	5	100.0	3	60.0	1	20.0	3	60.0	4	80.0	5	100.0	5	100.0	5	100.0	3	60.0	1	20.0	0	0.0
Upazila Health Complex (UHC)	5	4	80.0	4	80.0	4	80.0	0	0.0	4	80.0	4	80.0	5	100.0	3	60.0	0	0.0	3	60.0	0	0.0	0	0.0

Mother and Child Welfare Center (MCWC)	5	4	80.0	4	80.0	1	20.0	1	20.0	3	60.0	3	60.0	5	100.0	1	20.0	3	60.0	1	20.0	0	0.0	0	0.0
Union Health and Family Welfare Center (UH&FWC)	7	2	28.6	5	71.4	0	0.0	0	0.0	1	14.3	0	0.0	5	71.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Union Subcenter (UnSC)	5	1	20.0	1	20.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Community Clinic (CC)	9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NGO Clinic	9	2	22.2	3	33.3	1	11.1	0	0.0	3	33.3	0	0.0	4	44.4	0	0.0	1	11.1	1	11.1	0	0.0	0	0.0
Private Hospital	9	7	77.8	7	77.8	3	33.3	1	11.1	4	44.4	4	44.4	6	66.7	4	44.4	9	100.0	3	33.3	1	11.1	0	0.0
Division																									
Barishal	28	15	53.6	17	60.7	6	21.4	2	7.1	11	39.3	6	21.4	16	57.1	4	14.3	8	28.6	6	21.4	2	7.1	1	3.6
Khulna	27	10	37.0	12	44.4	6	22.2	1	3.7	7	25.9	9	33.3	14	51.9	10	37.0	11	40.7	5	18.5	0	0.0	0	0.0
Location																									
Urban	29	19	65.5	20	69.0	10	34.5	3	10.3	16	55.2	13	44.8	22	75.9	12	41.4	18	62.1	9	31.0	2	6.9	1	3.5
Rural	26	6	23.1	9	34.6	2	7.7	0	0.0	2	7.7	2	7.7	8	30.8	2	7.7	1	3.9	2	7.7	0	0.0	0	0.0

XVI. Availability of equipment for newborn care services

Out of the total 55 health facilities surveyed, only one (1) facility had the incubator for newborns. All the district hospitals and upazila health complexes and 80% of the MCWCs had suction bulbs and newborn bag and mask. However, these were available at only around half of the union-level public facilities and NGO clinics. Fewer than half of the facilities offered delivery services had an infant scale. Availability was highest among MCWC (100%), and district hospitals (80%). Around one-fourth of the union level public facilities had an infant scale (Table 34).

Table 34: Availability of Equipment for Newborn Care Sevices in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

	Total (N)	Incubator		Suction Apparatus With Catheter		Suction Bulb Or Penguin Sucker		Newborn Bag and Mask		Thermometer		Thermometer For Low Body Temperature		Infant Scale		Fetal Stethoscope	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Total	55	1	1.8	16	29.1	28	50.9	28	50.9	22	40.0	2	3.6	25	45.5	3	5.5
Types of facilities																	
Medical College Hospital	1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
District Hospital (DH)	5	0	0.0	3	60.0	5	100.0	5	100.0	4	80.0	1	20.0	4	80.0	1	20.0
Upazila Health Complex (UHC)	5	1	20.0	1	20.0	5	100.0	5	100.0	4	80.0	0	0.0	2	40.0	1	20.0
Mother and Child Welfare Center (MCWC)	5	0	0.0	3	60.0	4	80.0	4	80.0	3	60.0	0	0.0	5	100.0	0	0.0
Union Health and Family Welfare Center (UH&FWC)	7	0	0.0	0	0.0	4	57.1	3	42.9	1	14.3	0	0.0	2	28.6	0	0.0
Union Subcenter (UnSC)	5	0	0.0	0	0.0	1	20.0	1	20.0	1	14.3	0	0.0	1	20.0	0	0.0

Community Clinic (CC)	9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NGO Clinic	9	0	0.0	3	33.3	4	44.4	4	44.4	5	55.6	1	11.1	4	44.4	0	0.0
Private Hospital	9	0	0.0	6	66.7	5	55.6	6	66.7	4	44.4	0	0.0	7	77.8	1	11.1
Division																	
Barishal	28	0	0.0	10	35.7	15	53.6	16	57.1	12	42.9	1	3.6	12	42.9	2	7.1
Khulna	27	1	1.8	6	22.2	13	48.2	12	44.4	10	37.0	1	3.7	13	48.2	1	5.5
Location																	
Urban	29	0	0.0	14	48.3	20	69.0	21	72.4	17	58.6	2	6.9	20	69.0	3	10.3
Rural	26	1	3.9	2	7.7	8	30.8	7	26.9	5	19.2	0	0.0	5	19.2	0	0.0

XVII. Essential medicines for newborn care

Nearly two –thirds (62%) of the facilities had amoxicillin syrup or suspension available on the day of the survey. Availability was highest among Medical College Hospital (100%), DH (100%), UH&FWCs (100%), and MCWCs (80%). Injectable gentamicin was available in only 27% of facilities; availability was highest in district hospitals (80%). Less than half of the UHCs (40%) had gentamicin on the day of the survey. In addition, gentamicin was available in only 20% of the MCWCs. Availability of ceftriaxone was very poor among all the facilities. Around half of the facilities had 7.1% chlorhexidine available and availability was highest in the UHCs (100%) (Table 35).

Table 35: Availability of Essential Medicines for Newborn Care in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

Essential Medicine For Newborn Care	Total (N=55)		Medical College Hospital		District Hospital (DH)		Upazila Health Complex (UHC)		Maternal And Child Welfare Center (MCWC)		Union Health And Family Welfare Center (UH&FWC)		Union Sub-Center (UnSC)		Community Clinic		NGO Clinic		Private Hospital	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Amoxicillin Syrup/Suspension	34	61.8	1	100.0	3	60.0	3	60.0	4	80.0	7	100.0	1	20.0	9	100.0	5	55.6	1	11.1
Ampicillin Injection	7	12.7	0	0.0	0	0.0	0	0.0	2	40.0	1	14.3	0	0.0	0	0.0	2	22.2	2	22.2
Injectable Gentamicin	15	27.3	0	0.0	4	80.0	2	40.0	1	20.0	4	57.1	0	0.0	0	0.0	1	11.1	3	33.3
Antibiotic Eye Ointment For Newborn	1	1.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	11.1
Injectable Ceftriaxone	1	1.82	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	11.1
7.1% Chlorhexidine Solution	28	50.9	0	0.0	4	80.0	5	100.0	4	80.0	5	71.4	1	20.0	0	0.0	3	33.3	6	66.7

XVIII. Readiness of the health facilities to provide child curative care services

WHO has identified specific tracer indicators or items that must be available in the health facilities to be considered those as ready to provide child curative care. The 2017 BHFS used 10 items from the list of WHO tracer indicators to assess the overall readiness of the country's health facilities' to provide child curative care (WHO 2013) [16]. In this study, similar tracer indicators were used to see the readiness of the health facilities to provide child curative care. These included: IMCI guideline, IMCI trained staff, equipment, and medicines. Overall, only 5.5% of the facilities have all 10 items, indicating lacking in the systems approach to provide sick children's curative care. Out of 10 tracer indicators, findings on nine are shown in the Table below (Table 36). Staff training is reported separately.

Table 36: Readiness to Provide Child Curative Care Services in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

	Total (N)	IMCI Guidelines		Child Scale		Thermometer		Growth Chart		Zinc Tablets Or Syrup		ORS		Amoxicillin Syrup, Suspension, Or Dispersible		Paracetamol Syrup Or Suspension		Mebendazole / Albendazole		All 9 items Available	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Total	55	19	34.6	34	61.8	40	72.7	34	61.8	27	49.1	21	38.2	41	74.6	35	63.6	31	56.4	3	5.5
Types of facilities																					
Medical College Hospital	1	0	0.0	1	100.0	1	100.0	0	0.0	1	100.0	0	0.0	1	100.0	1	100.0	1	100.0	0	0.0
District Hospital (DH)	5	3	60.0	3	60.0	3	60.0	3	60.0	5	100.0	0	0.0	5	100.0	5	100.0	1	20.0	0	0.0
Upazila Health Complex (UHC)	5	2	40.0	3	60.0	3	60.0	5	100.0	4	80.0	2	40.0	4	80.0	4	80.0	1	20.0	0	0.0
Mother and Child Welfare Center (MCWC)	5	0	0.0	3	60.0	4	80.0	3	60.0	2	40.0	0	0.0	4	80.0	3	60.0	4	80.0	0	0.0

Union Health and Family Welfare Center (UH&FWC)	7	1	14.3	5	71.4	4	57.1	4	57.1	0	0.0	0	0.0	7	100.0	5	71.4	7	100.0	0	0.0
Union Subcenter (UnSC)	5	2	40.0	3	60.0	4	80.0	2	40.0	1	20.0	5	100.0	3	60.0	2	40.0	1	20.0	0	0.0
Community Clinic (CC)	9	4	44.4	7	77.8	8	88.9	8	88.9	7	77.8	8	88.9	9	100.0	5	55.6	7	77.8	1	11.1
NGO Clinic	9	7	77.8	6	66.7	9	100.0	8	88.9	5	55.6	6	66.7	6	66.7	7	77.8	6	66.7	2	22.2
Private Hospital	9	0	0.0	3	33.3	4	44.4	1	11.1	2	22.2	0	0.0	2	22.2	3	33.3	3	33.3	0	0.0
Division																					
Barishal	28	11	39.3	12	42.9	17	60.7	14	50.0	12	42.9	11	39.3	20	71.4	20	71.4	14	50.0	1	3.6
Khulna	27	8	29.6	22	81.5	23	85.2	20	20.0	15	55.6	10	37.0	21	77.8	15	55.6	17	63.0	2	7.4
Location																					
Urban	29	9	31.0	16	55.2	20	69.0	16	55.2	16	55.2	5	17.2	18	62.1	18	62.1	13	44.8	2	6.9
Rural	26	10	38.5	18	69.2	20	76.9	18	69.2	11	42.3	16	61.5	23	88.5	17	65.4	18	69.2	1	3.9

XIX. Availability of infection control precautions services

Out of total 55 health facilities surveyed, four-fifths (80.0%) had sterilization equipment; while only one-third (33.3%) of the community clinics had that capacity. Around two-thirds (61.8%) of the total facilities had disinfectant available; while the MCWC had the poorest (20.0) coverage even that of the community clinics (33.3%). One-third (34.5%) of the total facilities had available supply of alcohol-based hand disinfectants, and medical masks each. Latex gloves and gowns were available in 57.4% and 41.8% of the facilities respectively. A few of the total facilities had eye protection goggles (9.1%) and standard precaution guidelines (7.3%) for different services (Table 37).

Table 37: Availability of Infection Control Precaution Services in the Health Facilities Surveyed in Barishal and Khulna Divisions, 2019-2020

		Sterilization equipment		Disinfectant		Soap		Alcohol-based hand disinfectant		Latex gloves		Medical masks		Gowns		Eye protection goggles		Guidelines for standard precautions	
	Total (N)																		
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Total	55	44	80.0	34	61.8	43	78.2	19	34.5	31	57.4	19	34.5	23	41.8	5	9.1	4	7.3
Types of facilities																			
Medical College Hospital	1	1	100.0	1	100.0	1	100.0	1	100.0	1	100.0	1	100.0	1	100.0	1	100.0	1	100.0
District Hospital (DH)	5	5	100.0	3	60.0	5	100.0	1	20.0	4	80.0	2	40.0	2	40.0	0	0.0	0	0.0
Upazila Health Complex (UHC)	5	5	100.0	5	100.0	5	100.0	3	60.0	2	40.0	3	60.0	4	80.0	1	20.0	1	20.0
Mother and Child Welfare Center (MCWC)	5	5	100.0	1	20.0	4	80.0	2	40.0	2	40.0	0	0.0	0	0.0	0	0.0	0	0.0
Union Health And Family Welfare Center (UH&FWC)	7	5	71.4	4	57.1	5	71.4	1	14.3	4	66.7	1	14.3	2	28.6	1	14.3	0	0.0
Union Subcenter (UnSC)	5	3	60.0	3	60.0	3	60.0	0	0.0	4	80.0	0	0.0	0	0.0	0	0.0	0	0.0
Community Clinic (CC)	9	3	33.3	3	33.3	6	66.7	0	0.0	1	11.1	1	11.1	6	66.7	0	0.0	0	0.0

	NGO Clinic	9	8	88.9	7	77.8	7	77.8	7	77.8	6	66.7	5	55.6	5	55.6	2	22.2	2	22.2
	Private Hospital	9	9	100.0	7	77.8	7	77.8	4	44.4	7	77.8	6	66.7	3	33.3	0	0.0	0	0.0
Division																				
	Barishal	28	24	85.7	16	57.1	21	75.0	4	14.3	19	67.9	9	32.1	11	39.3	2	7.1	1	3.6
	Khulna	27	20	74.1	18	66.7	22	81.5	15	55.6	12	46.2	10	37.0	12	44.4	3	11.1	3	11.1
Location																				
	Urban	29	29	100.0	21	72.4	25	86.2	15	51.7	19	65.5	13	44.8	12	41.4	4	13.8	4	13.8
	Rural	26	15	57.7	13	50.0	18	69.2	4	15.4	12	48.0	6	23.1	11	42.3	1	3.8	0	0.0

Capacity of the existing health institutions (findings from qualitative study)

Health institutions for general people

Findings suggest that poor people were heavily dependent on the public health facilities in both rural and urban areas. Based on financial solvency, few people were getting health services from private practitioners and private clinics. Capacity of existing health institutions was measured based on the KIIs with the stakeholders, and FGDs with Frontline Healthcare Providers (FHPs). FGDs with community people, and IDIs with PWDs and their families also helped in adding information based on their experiences with the existing health institutions.

Government health facilities

The government health facilities were CC and sub-center at ward level, UH&FWC at union level, UHC at upazila level and District Hospital at district level. The stakeholders were very positive about the government health facilities as it was improved or upgraded. Few of them informed that the UHC had emergency health services which were not available in other health facilities. CC and sub-center have free medicines. FHPs also added that the community people preferred to go to the CCs as the service providers were familiar/well-known to the community.

> "*Now-a-days they (community people) go to Upazila Health Complex, they had suffered a lot before. There were so many* ***hature doctor*** *(quack) where they used to go. Recently the condition of the hospital is getting better. Hospitals' activities are better since last 2 months or more.*" – **A Government Stakeholder.**

Contradictory information was found regarding the capacity of government health facility from other stakeholders. Due to vacant posts, shortage of medicine, no use of medical instruments, no caesarean section facility, no operating system, no treatment facilities rather referring the patients to other facilities, the general people do not want to come to the health facilities.

> "*In the remote areas, condition of the Community Clinics is worse. There are total 28 Community Clinics in this Upazila. If any emergency happened to someone…suppose, a pregnant woman, she needs immediate cesarean operation, but there is no government facility to provide with this service. Here equipment is in packet (packed) since 5 to 7 years but there is no doctor (not posted). At the Upazila Health Complex (UHC), there are 24-26 positions of doctors, but only 3-4 doctors are available. It is very poor."* **- A NGO Stakeholder.**

> *"If I say about limitations of our health facility, there is lack of manpower. We have a specific doctor for PWDs but we do not have specific nurse for this. In addition, we don't have other necessary things for providing proper care to the PWDs …we have lack of manpower."***- A Government Stakeholder.**

*"There is no good (quality) doctor at Upazila Health Complex and there is lack of specialist doctor as well. There are 23 positions of doctors in the UHC, but only 6 positions are active currently (have posting)."***– A Government Frontline Healthcare Provider.**

In addition, practically, the good doctors were not interested to stay in remote areas though the government has the policy that every doctor, who has qualified the Bangladesh Civil Service (BCS) examination, has to provide with services in remote areas at least for 3 years.

*"Lack of manpower in government hospitals. Government has a '**bindings'** (rule) that BCS passed doctors need to stay in the remote areas at least for 3 years. So far I know, the actual fact is, we do not see the practice in the real field. Implication is not seen at the field level."* – **A Government Stakeholder**.

Along with doctors, there was scarcity of other associated manpower which was very important for proper functioning of a health facility. For example, there was ambulance in the health facility, however, the position of driver was vacant.

"There is extreme shortage of manpower in the hospitals. There is only one doctor and it is impossible to run a hospital twenty-four hours by one doctor. Besides, there is shortage of third class and fourth class employees as well. We have only one lab technologist here, but three positions are there." - **A Government Stakeholder**.

Most of the FHPs expressed that there was shortage of medicines (lack of supply) in the government health facilities as well as unavailability of necessary instruments required for preliminary diagnosis of any disease.

"We have shortage of medicines, we cannot provide calcium, and iron. We can provide only two Paracetamols and one Albendazole (for deworming) tablet, so people became very dissatisfied. No medicine is given, only false hope/lectures; whenever we go there is no medicine. We also do not have any machinery." – **A Government Frontline Health Provider.**

Findings from FGDs with FHPs also revealed that the pressure of patients was huge in some government health facilities. Location of health facility, population density near the facility, and road communication were the reasons behind patients' satisfaction. Patients' satisfaction caused huge numbers of patients' arrival in a specific community clinic.

"We have the capacity to provide treatment to 50 people a day. When 200 people arrive here, it becomes difficult to provide proper service." – **A Government Frontline Health Provider**.

There were some evidences that government doctors were not available in the hospital (at their place of posting, i.e. at the government facility) rather they were busy in private chambers.

"They (government doctors) do not sit here (government facilities), they sit in personal chambers and clinics, they do not have time for patients (in government facilities) …They spend one hour here (in government facilities) but spend 3 hours in private clinic/chamber…, also they open chamber at home and see the patients there by taking visit BDT 200." - **Male Community Members**.

Non-governmental organizations (NGOs) health facilities

There were no NGOs providing general health care to the community at our selected study areas.

Private practitioners and private clinics

A number of doctors provided health care in private chamber/clinic. FGDs with community people revealed that some of them preferred to visit private clinics/chambers for care seeking because of their quick service, and much attention to the patient. However, treatment in private facilities were very expensive as they usually advise to do many diagnostic tests and take higher consultation fee. Some of the government doctors also provided services in private chambers and clinics. Cost of private clinics and private practitioners were huge in compared to the services provided at government facilities.

"Services in the (government) health sector is very poor. People are alive as there are some clinics. They usually spend more money for getting better health service." – **A NGO Stakeholder.**

Health institutions for PWDs

The health institutions for persons with disabilities were fewer comparing to the health institutions serving for the general population although they were more likely to experience poor health than those without disabilities.

Government health facilities for PWDs

Persons with disabilities in Bangladesh were entitled to government support. Relevant government agencies were expanding their services for the PWDs. KIIs with stakeholders' informed that services for the PWDs were available in the government system.

"We have total 57 activities. Social welfare office does most works with PWDs. Disable allowance activity is one of those activities that we do for PWDs. In the 2018-2019 fiscal year, 1606 PWDs got allowance from Social welfare office here." **- A Government Stakeholder.**

But the programmes had some limitations. A few number of government organizations had been working for the people with disabilities. Interestingly, many of the FHPs did not know about the facilities for PWDs existing in the government organizations.

"Upazila health complex is a dream, even if there is no facility for the PWDS in the government facility in Morelganj." - **A Government Frontline Health Provider.**

Non-governmental organizations (NGOs) for PWDs

A few NGOs were providing health care services to the PWDs in both divisions. These included, Shusilon, ADD International Bangladesh and DRRA. In addition, an ongoing project under Protibondhi Unnayan Foundation in both divisions had some facilities for supporting and treating the PWDs. Rehabilitation and counseling therapy were also available there.

> *"We provide therapy and other services to the PWDs and risky people to be disabled. We have technicians, they examine eye and ear. We provide physiotherapy, occupational therapy, speech therapy, and rehabilitation."* **- A NGO Stakeholder.**

NGOs also had manpower shortage that hindered them to provide with quality care. One of the NGO stakeholders expressed it widely:

> *"Firstly we have crisis of manpower. At Upazila level, every office has manpower crisis; yet we are seven persons here, and we try. We have technicians working at the Autism corner, but they are responsible for examining eyes only."* **- A NGO Stakeholder.**

Community people had trust on those NGOs who were providing with health services to the community. NGO stakeholders informed that the community people were going to the referral center as they trusted them.

> *"They usually go to the places where they were referred. They come to us that mean they have confidence on us. And they tried to follow what we tell them."* **- A NGO Stakeholder.**

PWDs were receiving free treatment service from *Protibondhi Seba O Sahajjo Kendro*. They provided various supports and disability friendly facilities to the PWDs, such as, separate toilet, trolley and wheelchair. They also had facility of providing physiotherapy which was divine to the paralyzed PWDs.

> *"We have 3 toilets at the ground floor. We have fixed one separate toilet for the PWDs in the front side. Two toilets are available at indoor and one toilet is available at outdoor (for the PWDs)."* **- A NGO Stakeholder.**

Private practitioners and private clinics

There were no private professionals for PWDs in the community.

HEALTHCARE PROVIDERS' INTERVIEW

I. Facility-wise distribution of healthcare providers

In both Barishal and Khulna divisions, healthcare providers from 53 health facilities were interviewed as part of the health facility survey. Out of them, one (1) from Medical College and Hospital; five (5) each from the District Hospitals (DH), Upazila Health Complexes (UHC), Mother and Child Welfare Center (MCWC), and Union Sub Centers (UNSC); nine (9) each from the Community Clinics (CC) and NGO clinics (Smiling Sun); and seven (7) each from the Union Health and Family Welfare Centers (UH&FWC) and Private Clinics (Table 38).

Table 38: Facility-Wise Distribution of Healtcare Providers Interviewed in Barishal and Khulna Divisions, 2019-2020

Types of health facilities	(**N=53**)
Medical College and Hospital	1
District Hospital (DH)	5
Mother and Child Welfare Center (MCWC)	5
Upazila Health Complex (UHC)	5
Union Sub Center (UNSC)	5
Union Health and Family Welfare Center (UH&FWC)	7
Community Clinic (CC)	9
Private Clinic (Pvt. Clinic)	7
NGO Clinic (Smiling Sun Clinic)	9

II. Distribution of healthcare providers according to their job category

A total of 53 providers' interview was conducted in different health facilities as part of health facility survey. 23 of them were Medical Officers (MO), followed by eight (8) Community Health Care Providers (CHCP), six (6) Paramedics, five (5) Sub-Assistant Community Medical Officers (SACMO), and five (5) Family Welfare Visitors. 1 each were Specialized Doctor (Medicine), Anesthesiologist, Family Welfare Assistant (FWA) and others (Table 39).

Table 39: Distribution of Healthcare Providers According to their Job Category in Barishal and Khulna Divisions, 2019-2020

Types Of Health Facilities	Specialist (Medicine)	Specialist (Anesthesia)	Medical Officer (MBBS)	SACMO	FWV	FWA	CHCP	Paramedics	Others	Any other Specialist not listed	Total
District Hospital (DH)	1	1	2	0	0	0	0	0	0	1	5
Medical College And Hospital	0	0	1	0	0	0	0	0	0	0	1
Upazila Health Complex (UHC)	0	0	4	0	0	0	0	0	0	1	5
Union Sub Center (UNSC)	0	0	1	3	0	0	0	0	1	0	5
Union Health & Family Welfare Center (UH&FWC)	0	0	0	2	5	0	0	0	0	0	7
Mother And Child Welfare Center (MCWC)	0	0	5	0	0	0	0	0	0	0	5
Community Clinic (CC)	0	0	0	0	0	1	8	0	0	0	9
Private Clinic	0	0	7	0	0	0	0	0	0	0	7
NGO Clinic	0	0	3	0	0	0	0	6	0	0	9
Total	**1**	**1**	**23**	**5**	**5**	**1**	**8**	**6**	**1**	**2**	**53**

III. Distribution of healthcare providers according to their completed general training

More than half of the respondents interviewed had no in-service training on hand hygiene, cleaning and disinfection, waste management, needle stick and sharp injury prevention (50.9%). Also no training on injection safety practices or safe injection practices (66.0%), and on Health Management Information Systems (HMIS) (60.4%) was observed. A major part of the respondents (83.0%) had no in-service training on confidentiality and rights to non-discrimination practices for people living with HIV/AIDS (Table 40).

Table 40: Distribution of Healthcare Providers According to Their Completed General Training in Barishal and Khulna Divisions, 2019-2020

Training category	Yes, within past 24 months		Yes, over 24 months ago		No in-service training or updates		Total	
	n	%	n	%	n	%	N	%
Hand hygiene, cleaning and disinfection, waste management, needle stick and sharp injury prevention	7	13.2	19	35.9	27	**50.9**	53	100.0
Injection safety practices or safe injection practices	2	3.8	16	30.2	35	**66.0**	53	100.0
Health Management Information Systems (HMIS)	8	15.1	13	24.5	32	**60.4**	53	100.0
Confidentiality and rights to non-discrimination practices for people living with HIV/AIDS	9	17.0	0	0.0	44	**83.0**	53	100.0

IV. Distribution of healthcare providers according to their completed training on non-communicable diseases (NCD)

Nine out of every 10 respondents had no in-service general training on management of diabetes (88.7%), cardio-vascular diseases (90.6%), and chronic obstructive pulmonary diseases (88.7%) (Table 41).

Table 41: Distribution of Healthcare Providers According to Their Completed Training on Non-Communicable Diseases (NCD) in Barishal and Khulna Divisions, 2019-2020

Training category	Yes, within past 24 months		Yes, over 24 months ago		No in-service training or updates		Total	
	n	%	n	%	n	%	N	%
Diabetes management	2	3.8	4	7.6	47	**88.7**	53	100.0
Cardio-vascular diseases management	3	5.7	2	3.8	48	**90.6**	53	100.0
Chronic obstructive pulmonary diseases (COPD) management	1	1.9	5	9.4	47	**88.7**	53	100.0

V. Distribution of healthcare providers according to their completed training on child health services

Out of total 39 respondents who provided child curative care services, nearly 6 out of every 10 respondents' had no in-service training on EPI or cold chain monitoring (61.5%) while only 10.3% of them received the training within last 2 years. Around half of the respondents' received training on IMCI, ARI, management of diarrhoea, and complementary feeding of infants over 2 years back. However, around 70% respondents had training on breastfeeding which they received over 2 years back. Most of the respondents' hardly attended any in-service training on pediatric HIV/AIDS and pediatric ART (0.0% and 15.4% consecutively). More than half (56%) of the respondents had no in-service training on early childhood development (ECD) (Table 42).

Table 42: Distribution of Healthcare Providers According to Their Completed Training on Child Health Services in Barishal and Khulna Divisions, 2019-2020

Training category	Yes, within past 24 months		Yes, over 24 months ago		No in-service training or updates		Total	
	n	%	n	%	n	%	N	%
EPI or cold chain monitoring	4	10.3	11	28.2	24	**61.5**	39	100.0
Integrated management of childhood illnesses (IMCI)	8	20.5	23	**58.9**	8	20.5	39	100.0
Diagnosis and/or treatment of acute respiratory infections (ARI)	3	7.6	20	**51.3**	16	41.0	39	100.0
Diagnosis and/or treatment of diarrhoea	6	15.4	19	**48.7**	14	35.9	39	100.0
Micronutrient deficiencies and/or nutritional assessment	6	15.4	16	41.0	17	43.5	39	100.0
Breastfeeding	6	15.4	27	**69.2**	6	15.4	39	100.0
Complimentary feeding in infants	5	12.8	21	**53.9**	13	33.3	39	100.0
Pediatric HIV/AIDS	0	0.0	0	0.0	39	**100.0**	39	100.0
Pediatric ART	0	0.0	6	15.4	33	**84.6**	39	100.0
Early childhood development (ECD)	4	**10.3**	13	**33.3**	22	56.4	39	100.0

VI. Distribution of providers according to their completed training on family planning (FP) services

Around 50.0% (n=25) of the total respondents had in-service training on family planning (FP) services. Among these 25 respondents, 96.0% had training on general counselling on family planning. While half of them (52.0%) had no training on IUD insertion and/or removal, and three-fourths (72.0%) had no training on implant insertion and/or removal. Four-fifths (80.0%) of the respondents had no training on vasectomy, and three-fourths (76.0%) had no training on tubal ligation. More than half of the respondents' (60.0%) had training on post-partum family planning (PPFP). Two-thirds (64.0%) of the respondents received in-service training on injectable contraceptives over 2 years back from the day of interview conducted (Table 43).

Table 43: Distribution of Healthcare Providers According to Their Completed Training on Family Planning (FP) Services in Barishal and Khulna Divisions, 2019-2020

Training category	Yes, within past 24 months		Yes, over 24 months ago		No in-service training or updates		Total	
	n	%	n	%	n	%	N	%
General counselling for family planning	4	16.0	20	**80.0**	1	4.0	25	100.0
IUD insertion and/or removal	4	16.0	8	32.0	13	**52.0**	25	100.0
Implant insertion and/or removal	1	4.0	6	24.0	18	**72.0**	25	100.0
Performing vasectomy	0	0.0	5	20.0	20	**80.0**	25	100.0
Performing tubal ligation	0	0.0	6	24.0	19	**76.0**	25	100.0
Clinical management of FP methods, including managing side effects	3	12.0	12	48.0	10	40.0	25	100.0
Family planning for HIV positive women	0	0.0	5	20.0	20	80.0	25	100.0
Post-partum family planning (PPFP)	5	20.0	10	40.0	10	40.0	25	100.0
Injectable contraceptives	3	12.0	16	**64.0**	6	24.0	25	100.0
Emergency contraceptive pill (ECP)	3	12.0	10	40.0	12	48.0	25	100.0
Other training on family planning	0	0.0	2	8.0	23	92.0	25	100.0

VII. Distribution of healthcare providers according to their completed training on ANC-PNC-PMTCT services

29 out of total 53 respondents received any in-service training on antenatal care (ANC), post-natal care (PNC) and prevention of mother-to-child transmission (also known as prevention of vertical transmission) services. Respondents who received different trainings on ANC-PNC services 24 months before the day of interview were as follows: ANC screening (48.3%), counselling for ANC (65.5%), management of pregnancy complication (51.7%), nutritional assessment of the pregnant woman (51.7%), and PNC (65.5%) (Table 29).

Only 10 out of the total 53 respondents received training on topics related to maternal and/or new-born care. Most of them (90.0%) didn't receive any training on new-born nutrition counselling of mother with HIV and modified obstetric practices as relates to HIV. However, 7 out of 10 respondents had training on Infant and young child feeding (IYCF) practices (Table 44).

Table 44: Distribution of Healthcare Providers According to Their Completed Training on ANC- PNC- PMTCT Services in Barishal and Khulna Divisions, 2019-2020

Training category	Yes, within past 24 months		Yes, over 24 months ago		No in-service training or updates		Total	
	n	%	n	%	n	%	N	%
ANC screening (e.g., blood pressure, urine glucose and protein)	4	13.79	14	**48.3**	11	37.9	29	100.0
Counselling for ANC (e.g., nutrition, birth planning, FP and new-born care)	8	27.59	19	**65.5**	2	6.9	29	100.0
Complications of pregnancy and their management	5	17.24	15	**51.7**	10	31.0	29	100.0
Nutritional assessment of the pregnant woman, such as body mass index (BMI) calculation and mid-upper arm circumference (MUAC) measurement	4	13.79	15	**51.7**	10	34.5	29	100.0
Postnatal care (PNC)	5	17.24	19	**65.5**	5	17.2	29	100.0
New-born nutrition counselling of mother with HIV	0	0.0	1	10.0	9	**90.0**	10	100.0
Infant and young child feeding (IYCF)	0	0.0	7	**70.0**	3	30.0	10	100.0
Modified obstetric practices as relates to HIV (e.g., not rupturing membranes)	0	0.0	1	10.0	9	**90.0**	10	100.0

VIII. Distribution of healthcare providers according to their completed training on delivery services

Out of total 53 providers, only eight (15.1%) received any in-service training on delivery services. One (1) out of the eight (8) respondents had training on integrated management of pregnancy and childbirth (IMPAC). However, 50.0% of them didn't receive any training on comprehensive emergency obstetric care (CEmoC). 75% of them received training or updates on routine care for labour and normal vaginal delivery, active management of third stage of labour (AMTSL), and post abortion care (PAC). None of them had training on special delivery care practices for preventing mother-to-child transmission of HIV (Table 45).

Table 45: Distribution of Healthcare Providers According to Their Completed Training on Delivery Services in Barishal and Khulna Divisions, 2019-2020

Training category	Yes, within past 24 months		Yes, over 24 months ago		No in-service training or updates		Total	
	n	%	n	%	n	%	N	%
Integrated management of pregnancy and childbirth (IMPAC)	1	**12.5**	0	0.0	7	87.5	8	100.0
Comprehensive emergency obstetric care (CEmOC)	3	37.5	1	12.5	4	**50.0**	8	100.0
Routine care for labour and normal vaginal delivery	2	25.0	4	**50.0**	2	25.0	8	100.0
Active management of third stage of labour (AMTSL)	1	**12.5**	5	**62.5**	2	25.0	8	100.0
Emergency obstetric care (CEmOC)/ lifesaving skills (LSS) - in general	4	**50.0**	1	12.5	3	37.5	8	100.0
Post abortion care (PAC)	1	12.5	5	**62.5**	2	25.0	8	100.0
Special delivery care practices for preventing mother-to-child transmission of HIV	0	0.0	0	0.0	8	**100.0**	8	100.0

IX. Distribution of healthcare providers according to their completed training on new-born care services

Nearly half (n=24) of the total 53 respondents received in-service training on different topics on new-born care services. Respondents who received trainings on different components of new-born care services 24 months before the day of interview are as follows: neonatal resuscitation using bag and mask (45.8%), thermal care (including immediate drying and skin-to-skin care) (50.0%), sterile cord cutting and appropriate cord care (41.7%), kangaroo mother care (KMC) for low birth weight (LBW) babies (41.7%), helping baby's breath (HBB) (45.8%) and essential new-born care (45.8%). However, around two-thirds (62.5%) of the respondents had no in-service training on early and exclusive breast feeding, and half (50.0%) of the respondents had no training on new-born infection management (including injectable antibiotics) (Table 46).

Table 46: Distribution of Healthcare Providers According to Their Completed Training on New-Born Care Services in Barishal and Khulna Divisions, 2019-2020

Training category	Yes, within past 24 months		Yes, over 24 months ago		No in-service training or updates		Total	
	n	%	n	%	n	%	N	%
Neonatal resuscitation using bag and mask	5	20.8	11	**45.8**	8	33.3	24	100.0
Early and exclusive breastfeeding	9	37.5	0	0.0	15	**62.5**	24	100.0
New-born infection management (including injectable antibiotics)	3	12.5	9	37.5	12	**50.0**	24	100.0
Thermal care (including immediate drying and skin-to-skin care)	4	16.7	12	**50.0**	8	33.3	24	100.0
Sterile cord cutting and appropriate cord care	5	20.8	10	**41.7**	9	**37.5**	24	100.0
Kangaroo mother care (KMC) for low birth weight (LBW) babies	6	25.0	10	**41.7**	8	33.3	24	100.0
Helping baby's breath (HBB)	6	25.0	11	**45.8**	7	29.2	24	100.0
Essential new-born care	5	20.8	11	**45.8**	8	33.3	24	100.0

X. Distribution of healthcare providers according to their completed training on Sexually Transmitted Infection (STI) and Tuberculosis (TB) related services

Nine (9) out of total 53 respondents had any in-service training related to Sexually Transmitted Infection (STI). All of them received training on diagnosing and treating STI but more than half (55.6%) received the training 24 months before the day of interview. Two-thirds of the respondents' (66.6%) received training on the syndromic management for STIs, and less than half (44.4%) received training on drug resistance to STI treatment medications. On average, 86% or more of the respondents didn't receive any in-service training related to different topics of tuberculosis related services (Table 47).

Table 47: Distribution of Healthcare Providers According to Their Completed Training on Sexually Transmitted Infection (STI) and Tuberculosis (TB) Related Services in Barishal and Khulna Divisions, 2019-2020

Training category	Yes, within past 24 months		Yes, over 24 months ago		No in-service training or updates		Total	
	n	%	n	%	n	%	N	%
Diagnosing and treating sexually transmitted infections (STI)	4	44.4	5	**55.6**	0	0.0	9	100.0
The syndromic management for STI	2	22.2	4	44.4	3	33.3	9	100.0
Drug resistance to STI treatment medications	1	11.1	3	33.3	5	**55.6**	9	100.0
Diagnosis of tuberculosis based on sputum tests using AFB smear microscopy	2	3.8	7	13.2	44	**83.0**	53	100.0
Diagnosis of tuberculosis based on clinical symptoms or TB diagnostic algorithm	1	1.9	6	11.3	46	**86.8**	53	100.0
Treatment prescription for tuberculosis	8	15.1	0	0.0	45	**84.9**	53	100.0
Treatment follow-up services for tuberculosis	8	15.1	0	0.0	45	**84.9**	53	100.0
Direct observation treatment short-course (DOTS) strategy	9	17.0	0	0.0	44	**83.0**	53	100.0
Management of TB-HIV co-infection	4	7.6	0	0.0	49	**92.5**	53	100.0
Management of MDR-TB or identification and referral of MDR-TB suspects	6	11.3	0	0.0	47	**88.7**	53	100.0

Findings from qualitative study

Training of health professionals on disability

None of the FHPs and government stakeholders interviewed had any training on disability.

> "*How to counsel them, how to provide them service, where to send them – we do not have any training on it.*" **- A Government Frontline Health Provider.**

On the contrary, all of the NGO Stakeholders mentioned that they received several trainings on disability both within and outside the country.

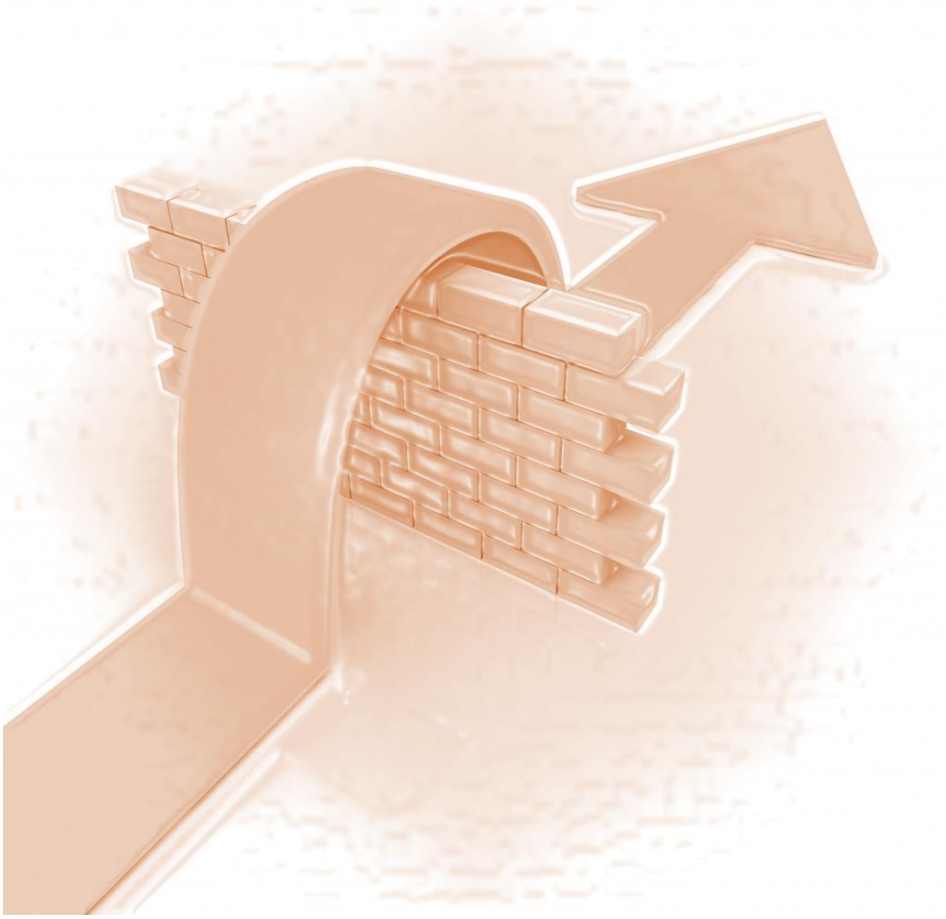
> *"I received training on disability. Duration of some of the trainings was one or two days. Such as 'Action Aid' provided us two or three trainings in 2017. That training was on 'types of disability, how to treat them as per their disability types, their rights, gaps/challenges, how to analyze those gaps, how to present those things to the government etc.' CDT provided two days' training at Satkhira region training Center."***- A NGO Stakeholder.**

Knowledge on 'Disability Protection Act-2013'

Most of the KII participants' and few of the FHPs had knowledge on the disability protection act, 2013. The act defined the disability and types of disability and it had clear indication between disability and non-disability. However, their opinions were, the act had not been followed properly.

> *"Disability is divided in twelve categories. Everything is written there: what type of facilities they will get; what punishment will be given if someone illegally consumed their wealth; what punishment will be given if someone act as fake disable, etc. They will get all treatments like the general people (citizens) of the country. All disability-friendly systems, like, for going up and coming down, separate toilets should be arranged for them in every places/offices. There should have ramp for them for up-down. Also, it's difficult for them to use general toilet and there must be some separate facilities for them. These types of issues are written there."***- A Government Stakeholder.**

CHALLENGES, LIMITATIONS, CONCLUSIONS & RECOMMENDATIONS



FINDINGS FROM QUALITATIVE STUDY

Challenges faced in accessing healthcare by general people

I. Poor road communication and transport

Almost all of the FGD participants from both rural and urban areas reported about road communication and transportation barriers, such as, long distance, lack of vehicles, transportation cost, broken roads, and crossing river by boat. Each of these obstacles kept them away in accessing healthcare services, especially in the coastal areas.

> *"Communication system is not well linked with this area; road transportation system is very bad. There is no health facility except our primary health facility (Morelganj Upazila Health Complex) besides Bhola River. Our home is situated close to Sundarban; it takes at least three hours to reach Morelganj Upazila Health Complex from there. Also boat is required to reach to the health facility which is situated on the other side of the river."***– A Male Community Member.**

In both divisions, most of the participants reported that they wanted UHC to provide treatment for significant health problems. They preferred to go to CC and UH&FWC for primary health care for any kind of complications. They actually chose the closer public health facility for avoiding transportation related challenges.

II. Lack of nearby government health facility

From the qualitative data, it was found that geographically, the government health facilitates were not very well distributed. Thus all the community people are not getting the service within their community. Distance of government health facilities, i.e., CCs were far from some of the communities.

III. Poor quality of care at government health facilities

Findings from FGDs with community people and IDIs with PWDs revealed various expository factors which were discouraging for the coastal people for care seeking from the government health facilities. These factors included: insufficient supply of medicines; scarcity of beds and cabins in the hospitals; unavailability of ambulance; unavailability of equipment to diagnose diseases; uncleaned hospital beds and toilets; lack of supply of drinking water; broken infrastructure of facility; lack of specialist doctors; lack of facility for emergency care and surgical operations; lack of inpatient facility; and gathering/rush due to insufficient space in the health facilities.

> *"Most of the time, there is inadequate medicine supply in the hospital. Only selected medicines are available. Thus, the patients had to buy most of the medicines from outside. This is a huge problem for the poor patients. There is also lack of equipment that hindered diagnosis of any disease."* **- A Government Stakeholder.**

Most of the participants from FGDs with community people, and KIIs with stakeholders suggested that they expected the environment of the facility to be cleaned.

"The environment of the hospital needed to be cleaned. A patient comes here for cure by getting treatment. If he/she will see the hospital environment is dirty or something like that, then how it is possible to get cured." **- A NGO Stakeholder.**

Some of the community members also mentioned following reasons which created patient's dissatisfaction: unfriendly behaviour and attitude of doctors, nurses and other staffs of the facility; unavailability of doctors and nurses round the clock; health professionals did not respond promptly when required, particularly during emergency and at night time; and the nurses of the government facilities were not skilled enough to provide quality care.

"*We did not found any doctor in Sadar Hospital after the morning round or at night time. We had faced very bad situation because good staff nurses do not come to provide services in the emergency department, and doctors are not available in the hospital/emergency department at midnight. Behaviour of nurses is also not good. They did not provide any treatment at night. They tried 5 times for pushing one injection or canola to me; it seemed, they did not have the learning how to do it, and they are studying (student nurse). Senior nurses usually do not come*."**- A Female PWD.**

Community members and PWDs added some other points of dissatisfaction about health care at government facilities. Those included: doctors spent much time in their private chamber than the time needed to be spent in government hospitals; doctors had a tendency to encourage the patient to come to their private chamber instead of providing services at the government facility; and doctors were not interested to serve in remote areas resulted in shortage of manpower in the government health facilities.

*"Basically experienced doctors are not interested to stay at rural areas. They are not interested to stay in Upazila Health Complex. They want to stay in Dhaka, or in divisional city, not even at the district level. Most of them like to spend time in good places, from here to there, where their income is high. They usually want to stay/spend time where there are big private clinics."***– A Male Community Member.**

Almost all the FHPs and Stakeholders mentioned that they faced extreme problems due to vacancy of health service providers' positions mostly at Upazila level. There were vacant posts for doctors, nurses, paramedics, physiotherapists, and also cleaning staffs and drivers for ambulance. Moreover, many of the staffs who were posted in remote places in the coastal areas, especially at upazila level, did not like to stay there.

*"Challenge means we have extreme manpower crisis. We have 28 doctors' position in this hospital, but only four doctors are working. And even one of them is performing as an Administrator. There is no consultant in this hospital; no doctor in the dental department and in the anesthesia department. There is also lack of cleaners, only one cleaner in this entire hospital."***– A Government Stakeholder.**

"If one patient required 30 minutes' time for treatment then how you can provide treatment to 60 patients in 8 hours. So, number of staffs should have to increase. One MBBS doctor should be assigned in this

post who will provide treatment only to the PWDs. Or one Physiotherapist should be deployed there." **- A Government Stakeholder.**

Challenges faced in accessing healthcare by PWDs

I. Poor road communication and transport

Transportation related challenges were existing in the coastal areas, in particular for the PWDs. Bad roads, long distances and various types of vehicles were the main challenges for the community people to reach to the health facilities to avail services. In the coastal areas, roads were not smooth or not disability-friendly to move with wheelchair.

"*Hospitals are so far. People usually go to hospital by boat. There are many communities, and there is no transport for coming to the health facility except the troller (water vehicle). If someone reserve a troller, he/she has to pay BDT 700 for one way. If he wants to come back by the same troller then he has to pay BDT 2000 for up and down. This is one of the important reasons why people do not want to go to the hospital."* – **A Government Frontline Health Provider.**

Most of the informants of KIIs and FGDs mentioned that the poor transport and road communication was one of the major challenges for the PWDs for care seeking. Broken or ***kacha*** road, long distance, higher transportation cost and river-way transportation along with roadway transportation - all created the condition more complicated. Therefore, the PWDs did not want to come to the health care centers particularly for the transportation difficulties.

"Road from home to nearest hospital and the vehicles, both are important for the person with disability. It should be friendly." - **A Government Stakeholder.**

II. Natural disaster

River breakdown or disasters also adversely affected the entire environment including the healthcare seeking pattern of the community people of coastal areas. Therefore, communication and transportation system became poor, particularly, broken roads hamper access to the health facilities during emergency.

"Big challenge of coastal areas is during the disasters. Although we stated that but there is no road to go to the cyclone Center for The PWDs using wheel chair. The road (from the home of PWD to cyclone Center) is not friendly for them." **- A NGO Stakeholder.**

III. Poor quality of care at government health facilities

Findings from IDIs with both male and female PWDs and their family members shared almost similar experiences about the government health care system. They preferred to go to village doctors or private/NGO clinics rather visiting the government health facility. Negative circumstances in government health facilities like unavailability of doctors and nurses, lack of medicines, no arrangement for diagnostic tests, and no special facility for emergency patients influenced the families to make their choice.

Moreover, most of them reported that there were no good government hospitals, where they can go and get proper treatment especially for the PWDs. Problems mentioned: no specialist doctors for the PWDs, no proper sitting arrangement, no separate queue, and no wheelchair for the PWDs in the government hospitals. Some of the PWDs and their families had bitter experiences from the government hospitals. They reported that the patient was very serious, still they had to stay in hospital corridor because of unavailability of beds in the hospital wards/cabins, and also they did not get proper treatment.

Though most of the stakeholders informed that the PWDs got priority than the general people especially during receiving treatment but different opinions came from FGDs with community members and IDIs with PWDs. Some of the FHPs and stakeholders said that the environment and infrastructure of health facility buildings were not disability-friendly. The buildings were old and not suitable for providing health services. Often it remained unclear, especially the toilets. There was also lack of supply of drinking water. Environment of these centers disfavour the patients to take services from there.

> "*Patients come from home to take treatment at the UH&FWC. There is bad smell in the hospital, no water supply, no good toilet facility for patient use. Why will people come here?"***– A Government Frontline Health Provider.**

Ramp was not available in all the facilities even though it was recommended by government. In UHCs, ramps were available but those were used only for medicine transportation. Mostly they were not friendly for wheelchair users. The ramp is structurally faulty for the movement of PWDs.

> *"In the hospital, some systems such as ramp, adequate number of wheel chairs, and holding system in the wall for blind people are needed. There is lacking of these scopes in the hospital infrastructure. We should make easy way for the blind people. "***- A Government Stakeholder.**

> *"There is no ramp at the community clinic. The toilet is not accessible."***- A NGO Stakeholder.**

> "*We have no wheel chair or anything like this for the PWD's movement; we have no separate system for them. Basically we could not arrange anything, like, ramp or wheel chair for their up-down. That's a problem for the PWDs.*"**- A Government Stakeholder.**

> *"If you go to Bagerhat Sadar Hospital right now, you can see a ramp and it can be used to move from the first floor to second floor only; there is no arrangement to go above the second floor. They think it will be used by the bed-ridden patients only. There should have railing if wheel chair users want to pop up the ramp. Simply, it is not disability friendly. Sadar Hospital including all government hospitals have some medicines free for all people but it is only in pen and paper. I personally had experienced this while I went there for my mother's treatment."***- A NGO Stakeholder.**

Furthermore, most of the service providers had no specific training or experience to provide services to the PWDs, like how to counsel them, and where to refer them.

IV. No special services for the PWDs

The PWDs received treatment with the general people. They did not have any separate queue/line. Some informants mentioned that there was no separate ticket counter, help desk, ward, and corner for PWDs. Therefore, they suffered a lot for getting any kind of information or services from the government health facilities. Besides this, usually there were many patients in the health facility (overcrowded), and it is difficult for the PWDs to wait long time. In addition, the hospital had no dedicated person who can attend the PWDs.

> "*In our Upazila Health Complexes, there is no separate arrangement for them (PWDs). There is no separate corner or special arrangement for the PWDs.*" **- A NGO Stakeholder.**

Most of the female PWDs' family members mentioned that there were many PWDs, especially the younger females, who need special support and treatment.

> *"Separate rooms should be available for their (the young females) treatment in the same hospital. This type of patient should have separate seating arrangement (in a separate room), and a separate doctor should be available for them. The entire treatment system should be separated for them."*– **A Family Member of Female PWD.**

V. No specialized doctors for PWDs

IDIs with PWDs identified that it is difficult for them to move from one place to another. Therefore, they usually chose the closer health facility first as they need attendant to go anywhere. There is no specialized doctors or physiotherapist for the PWDs at the nearby health facilities (CCs) that made many of the families of the PWDs unwilling to continue their treatment.

> *"It is not possible to provide treatment to the PWDs by only one doctor; we all have to give combined effort. If you think that you will provide only physiotherapy, then it is not enough for many of the PWDs' health care service. Sometimes medicine specialist, occupational therapist, speech therapist, psychologist all are required to treat a PWD". -* **A Government Stakeholder.**

> *"All try to come to the nearest health facility at first. Because the PWDs cannot come alone, they need someone to bring them to the hospital; so it is best for them to visit the nearest facility."***- A Government Stakeholder.**

> "*We provide mobile therapy in remote areas by van. If such a service could set up in each Upazila, then people across the country would get this opportunity.*"**- A NGO Stakeholder.**

VI. Insufficient support from the government for the PWDs

The government supplies were not enough for the PWDs as well as it was troublesome to get the support. The government had instructions for providing treatment to PWDs free of cost. However, achieving the facility by a PWD and his/her family was very difficult which made them reluctant to avail services from the government facilities.

> "*They provided only seven (7) ear equipment or hearing devices last year, whereas our demand was up to 30.*" **- A NGO Stakeholder.**

> *"Should have arrangement of one ambulance only for the PWDs which will be used for carrying them."* **- A Government Stakeholder.**

> *"Should have special system for them (persons with disabilities) at private clinic also."***- A NGO Stakeholder.**

VII. Poor financial condition

The disadvantaged people, more specifically the families with PWDs, were facing challenges of spending money for their treatment. The financial conditions of the PWDs were not very good. Majority of them stopped continuing treatment due to lack of money.

> *"If I could arrange money, could go to Barishal again; but I do not have money. Then only Allah can recover me."* **- A Male PWD.**

Most the PWDs and their family members mentioned that it would be better if there are free medicine, special ramp for PWDs, wheel chair in health facilities, separate line & seating arrangement for the PWDs at health facilities. Moreover, they suggested that the doctor should call the patient's family to remind for the follow up treatment.

> *"The **protibondhi** (person with disability) have little ability for getting treatment if they belong to poor families. Basically I think it would be better if they were given free treatment."***- A Government Stakeholder.**

VIII. Lack of awareness and negligence from family and community

According to few informants, there was lack of awareness among the people in our society about the PWDs. The PWDs were neglected by the society, and even sometimes by their own family. In some cases, the family members stopped bringing them to the health facility due to ignorance or financial problems. In some instances, the families did not initiate treatment of their PWD member at the very beginning of development of signs and symptoms. Similarly, after initiating treatment and continuing for few years, they stopped doing so because of no improvement in the PWDs' physical conditions, and/or lack of financial ability.

"*More work is required to increase awareness. Have to convince the PWDs and families for not going to the **grammo quack doctor** (village doctor) or non-qualified doctor for treatment. Have to convince them for getting treatment at proper place. Needed more work on this."* **- A Government Stakeholder.**

Sometimes the PWDs were victimized of different bullying like lame (***khora***) in the health facilities as well, which discouraged them to go there for further treatment.

"Relatives of the PWDs are the main obstacles for them. Their parents do not bring them (to hospital); the parents and relatives have some negligence to their disabled child. It seems that parents wanted to take release (from hospital) before they are fully cured. The PWDs' guardians are not interested for proper investigation which is needed for the treatment of these types of patients." – **A Government Stakeholder**.

*"When a child with disability is born, in many ways, s/he becomes mentally upset and the society or neighbours continuously humiliate them with negative comments and behaviours. Therefore, they (the parents) start thinking 'this child is the result (**phoshol)** of my **pap** (Sin/bad deed)'. The society pushes them to think like that."* **- A NGO Stakeholder.**

IX. Over demanding population

KIIs with Stakeholders and FGDs with FHPs also revealed some different findings. It was reported that the people in the coastal areas became very demanding day by day as they received much donations/relief after some major disasters happened different times. Now-a-days they wanted support from government and others. At the same time, they became very lazy and did not have any interest to work hard for their development. They did not want to do harvesting as it required hard work/labour.

LIMITATIONS OF THE STUDY

This study has some limitations. We measured disability on the basis of subjective responses given by either the parents or HH heads or according to the respondents' own answers. This method of data collection might influence the final estimate because of the possibility of under- or overestimating.

We did not calculate the sample size of this survey considering the women specific indicators. Therefore, our sample would not provide with the reliable estimates for these indicators. However, our sample proportions are presented with their corresponding confidence intervals. Any programmatic decisions based on these estimates would therefore not be appropriate.

CONCLUSIONS AND RECOMMENDATIONS

The health and livelihood patterns of the people living in the coastal areas, especially for the poor, is very much worsening as health care facilities and services are often incomplete, far away, and therefore, most difficult and costly to reach there. This is particularly challenging for the person with disabilities. People of these hard-to-reach and disaster-prone areas are being deprived of necessary health services due to lack of adequate and skilled human resources at the public facilities.

Findings from the study revealed that disability is an issue that has a profound effect not only on a family but on the society as a whole. The health care services do not include medical rehabilitation for people with disabilities, so they depend largely on traditional healers. A minimum level of medical rehabilitation is available through NGOs, which are mostly concentrated in urban areas. Therefore, people with disabilities living in rural coastal areas have no other alternative than traditional healers, often inappropriate or inadequate treatment. Considering these major issues, this study led to some recommendations:

Health system related:

- Ensure recruitment and appropriate deployment of human resources for the health facilities in the coastal areas and make health services responsive to the needs and demands of this population.
- Readiness of the health facilities at the coastal areas to provide basic and comprehensive health services were alarmingly low. Development of facility-specific contextualized tools and implement those through appropriate training and supportive supervision for maintaining minimum required quality of basic health care should be ensured.
- A proper regulatory mechanism should be vigilant to ensure accountability of the health facilities and healthcare providers in providing effective and quality health services. A concerted multi sectoral efforts by government institutions at all levels, the private sector, NGO sector, and the civil society is required

to manage health system issues in coastal areas by capacity building, institutional strengthening, and facilitating implementation.

For people with disability (PWD):

- Development of programs and policies for mitigating the suffering of people with disabilities in all cross-sections of the society and bringing down the barriers to their integration into the society should be a priority. Effective measures should be taken to protect PWD and prevent their rejection by the society.
- Special facilities need to be created to help the PWD function as normally as possible. This could be done by creating social awareness, and by ensuring the PWD's access to health, education, and employment, and by providing them modern disability aids, and disability benefits or allowances, especially to those living in poverty.
- Medical facilities need to be improved tailored to the needs of disabled people, such as, the purchasing of modern medical equipment as well as training doctors, psychologists, physiotherapists, and medical staff in the treatment and care of different types of disabilities.
- The government disability programmes need to target poor households on a priority basis and initiative should be taken for setting up special community clinics or support groups for them. In order to improve services for PWD living in rural areas, it is necessary to establish facilities including transportation and also eliminate or subsidize health facility usage fees. Domiciliary healthcare services for PWDs can also be initiated by the government and/or NGOs according to an individual's assessed needs.
- To ensure that people with physical disability can move freely and work independently as much as possible, special facilities need to be created at hospitals, workplaces, marketplaces, offices, on public transports, and even on the streets or pavements so that the environment is disability-friendly. For example, special ramps could be constructed for wheel chair access.

Natural disaster and infrastructure related:

- A coastal planning policy and guidance for local government and input to adaptive engineering design of coastal infrastructure (e.g. roads, ports), and user-friendly shelter center should be developed.
- A system for climate sensitive disease surveillance system that comprises a set of climate sensitive disease/health indicators, including potential vulnerable populations (e.g. PWDs, aged, women and girls) needs to be established to enable local vulnerability assessments.

EHD project specific indicators related:

- Large proportion of people in coastal areas especially in its rural part sought healthcare from the informal providers. Promotional activities for motivating people (esp. rural people) for formal care seeking should be initiated.

- Proportion of women availing family planning services found relatively high in this population. For other women specific indicators, we recommend to conduct a more women-focused larger study using diverse data collection methods (similar to this small scale study) in order to understand the coverage of antenatal, delivery and postnatal care of women with and without disabilities in the coastal areas.
- Health facility assessment suggested there was a gap in HMIS training in the sampled facilities. Project should invest on the facilities to increase the number of facilities reporting to DHIS2 / HMIS to have quality data on service utilisation and delivery.
- Our analysis suggested, less than half of the sampled facilities had the guidelines on family planning, ANC and IMCI. These guidelines can give directions effectively to the health care providers and these are key to ensure quality of services. Therefore, programme can address this gap and build awareness regarding health guidelines in all the facilities in the coastal areas. This will help the facilities in functioning as per the government guidelines.

COVID-19 pandemic related:

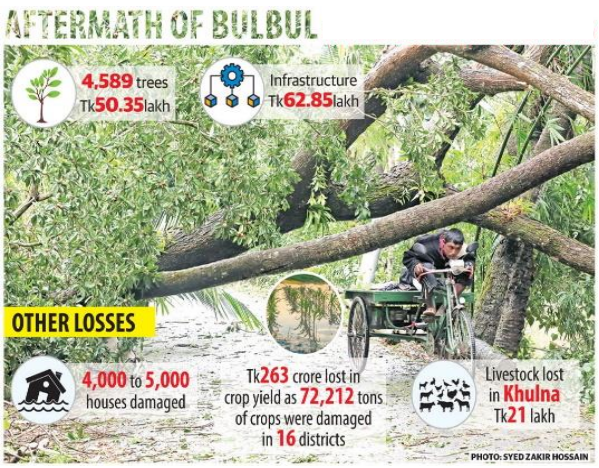
- The global COVID-19 pandemic has impacted 'business as usual' operations in many settings including Bangladesh. The problems set out in the EHD programme are still relevant, solutions are still needed and that progress towards developing them can still be made. Therefore, potential adaptations to the planned approach in response to the current context need to be considered.

The study employed a mixed method approach, the qualitative component of which included different types of methods for data triangulation to maintain intense data. However, the useful information gathered from this study could work on establishing an effective programme for ensuring quality health care for the people living in coastal areas especially for the people with disabilities. Inability to provide adequate healthcare to this vulnerable population would undermine the realization of the Sustainable Development Goals (SDGs) from the apprehension of 'Leave No One Behind'.

CHALLENGES FACED DURING STUDY IMPLEMENTATION PERIOD

I. CYCLONE BULBUL

A devastating and very damaging cyclonic storm 'Bulbul' was a strong tropical cyclone that struck the Indian state of West Bengal as well as Bangladesh in November 2019, causing storm surge, heavy rains, and flash floods across the areas.This cyclone left trail of death, destruction in Bangladesh. This study field team was there in the field during that period and faced massive challenge even weeks after the incidence happened.

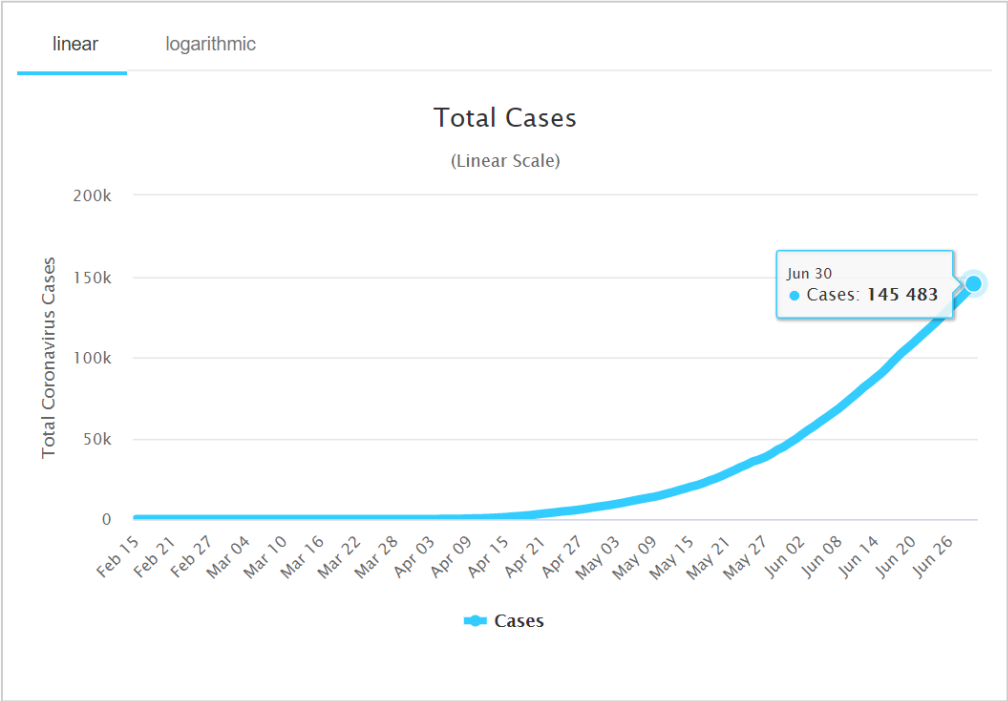


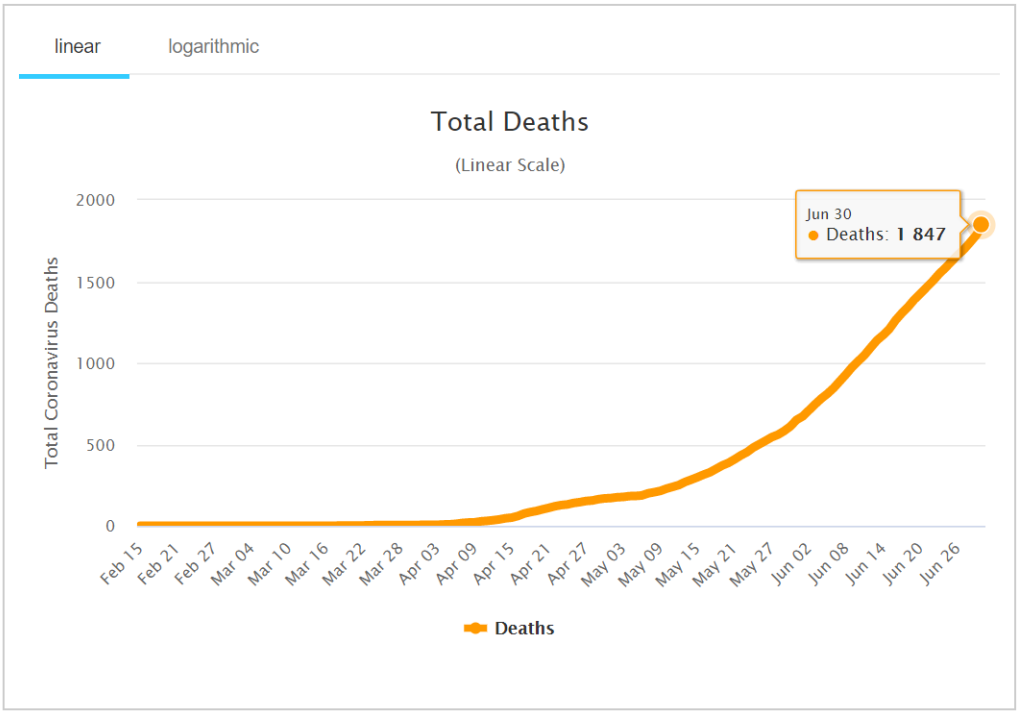
II. POOR ROAD COMMUNICATION

Very poor road communication causes terrible impacts on health and other sectors at this low lying coastal area. Field movement and data collection was hampered due to this challenging road communication as well.

III. COVID-19

The 2019–20 coronavirus pandemic was confirmed to have spread to Bangladesh on 8 March 2020. Infections stayed low till the end of March but saw a steep rise in April. Though field activities of the study were completed, but it was quiet difficult to complete data entry, data cleaning, data analysis, and report drafting and compilation as because the team could not work together due to the current situation.





Despite these interruptions, the research team at Maternal and Child Health Division, icddr,b successfully completed all the assigned tasks as per the scope of work.

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