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Ministry of Health and Family Welfare

Information Collection Survey on Health Sector Programs in Bangladesh

Final Report

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This Survey report is based on the current situation as of the end of February 2025. The situation surrounding the 5th HPNSP has changed since then and up to the finalization of this report, but those changes are outside the scope of this Survey and are thus not reflected in this report.

Bangladesh
Information Collection Survey on Health Sector Programs

Final Report

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Abbreviations

Abbreviations	Name
3rd HPNSDP	The 3rd Health, Population and Nutrition Sector Development Program
4th HPNSP	The 4th Health, Population and Nutrition Sector Programme
5th HPNSP	The 5th Health, Population and Nutrition Sector Programme
8FYP	The 8th Five-Year Plan
ADB	Asian Development Bank
AHI	Assistant Health Inspector
AMS	Asset Management System
AWS	Amazon Web Services
BAPI	Bangladesh Association of Pharmaceutical Industries
BASIS	Bangladesh Association of Software and Information Services
BBGNS	Bangladesh Basic Graduate Nurses Society
BDF	Bangladesh Development Forum
BHCI	Bangladesh High Blood Pressure Control Initiative
BHISA	Bangladesh Health Information System Architecture
BMDC	Bangladesh Medical and Dental Council
BNMC	Bangladesh Nursing and Midwifery Council
BNNC	Bangladesh National Nutrition Council
BNP	Bangladesh Nationalist Party
BRAC	Bangladesh Rural Advancement Committee
BPRP	Bangladesh Preparedness and Response Plan for COVID-19
BPSC	Bangladesh Public Service Commission
BTRC	Bangladesh Telecommunication Regulatory Commission
CBHC	Community Based Health Care
CBNS (I, II)	Project for Capacity Building of Nursing Services in Bangladesh
CC	Community Clinic
CG	Community Group
CHCP	Community Health Care Provider
CHW	Community Health Worker
CMSD	Central Medical Stores Depot
COPD	Chronic obstructive pulmonary disease
COVID-19	Coronavirus Disease 2019
CPI	Corruption Perceptions Index
CSBA	Community-Based Skilled Birth Attendant
DD-FP	Deputy Director-Family Planning
DEMEW	District Electro-Medical Equipment Workshop
DGDA	Directorate General of Drug Administration
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
DGME	Directorate General of Medical Education
DGNM	Directorate General of Nursing and Midwifery
DH	District Hospital
DHIS2	District Health Information Software 2
DHS	Demographic and Health Survey
DHS	Digital Health Strategy
DLI	Disbursement-Linked Indicator
DOA	Department of Architecture
DPC	Development Partner Consortium

Abbreviations	Name
DPL	Development Policy Loan
DPP	Development Project Proposal
ECNEC	Executive Committee of the National Economic Council
EDCL	Essential Drugs Company Limited
EDL	Essential Drug List
EmOC	Emergency Obstetric Care
EPA	Agreement between Japan and Bangladesh for an Economic Partnership
EPI	Expanded Program on Immunization
ESP	Essential Service Package
Excom	Executive Committee
FMAU	Financial Management and Audit Unit
FPI	Family Planning Inspector
FWA	Family Welfare Assistant
FWV	Family Welfare Visitor
GDP	Gross Domestic Product
GED	General Economics Division
GMP	Good Manufacturing Practice
GNI	Gross National Income
HA	Health Assistant
HCFS	Health Care Financing Strategy 2012-2032
HED	Health Engineering Department
HEFWD	Health Education and Family Welfare Division
HEU	Health Economics Unit
HI	Health Inspector
HIS	Health Information System
HIV	Human Immunodeficiency Virus
HPNSDP	Health, Population and Nutrition Sector Development Program 2011-2016
HRIS	Human Resource Information System
HSD	Health Service Division
HSM	Hospital Service Management
HSSP	Health Sector Support Project
icddr,b	International Centre for Diarrheal Disease Research, Bangladesh
ICRC	International Committee of the Red Cross
ICT	Information and Communication Technology
IDA	International Development Association
IDRA	Insurance Development and Regulatory Authority
IEDCR	Institute of Epidemiology Disease Control and Research
IMED	Implementation Monitoring and Evaluation Division
IOM	International Organization for Migration
ITU	International Telecommunication Union
IVD	In-Vitro Diagnostics
JCI	Joint Commission International
JICA	Japan International Cooperation Agency
KOICA	Korea International Cooperation Agency
LCG	Local Consultative Group
LD	Line Director
LDC	Least Developed Country
MCH-FP	Maternal and Child Health – Family Planning
MCWC	Maternity and Child Welfare Centre
MDR-TB	Multiple Drug-Resistant Tuberculosis

Abbreviations	Name
MEFWD	Medical Education and Family Welfare Division
MHVS	Maternal Health Voucher Scheme
MICS	Multiple Indicator Cluster Survey
MIS	Management Information System
MOF	Ministry of Finance
MoHFW	Ministry of Health and Family Welfare
MOHPW	Ministry of Housing and Public Works
MOLGRD&C	Ministry of Local Government, Rural Development and Co-operatives
MoPA	Ministry of Public Administration
MP	Master Plan
MRA	Microcredit Regulatory Authority
MWM	Medical Waste Management
NCD/NCDs	Noncommunicable Disease/Diseases
NCDC	Noncommunicable Disease Control
NDHIE	National Digital Health Information Exchange
NDVP	National Deployment and Vaccination Plan for COVID-19 Vaccines in Bangladesh
NEMEMW&TC	National Electro Medical Equipment Maintenance Workshop and Training Center
NHF	National Heart Foundation
NGO	Non-governmental Organization
NHSDP	NGO Health Service Delivery Program
NHSO	National Health Security Office
NIANER	National Institute of Advanced Nursing Education and Research
OCAG	Office of the Controller and Auditor General
OP	Operation Plan
OpenMRS	Open Source Medical Record System
OpenSRP	Open Source Smart Register Platform
PFD	Physical Facility Development
PHC	Primary Health Care
PIP	Program Implementation Plan
Planning Wing	Planning Wing
PMMU	Program Management and Monitoring Unit
PP2041	Perspective Plan of Bangladesh 2021-2041
PPE	Personal Protective Equipment
PRSP	Poverty Reduction Strategy Paper
PWD	Public Works Department
RCHCIB	Revitalization of Community Health Care Initiatives in Bangladesh
RMNCAH	Reproductive, Maternal, Newborn, Child and Adolescent Health
SACMO	Sub-assistant Community Medical Officer
SDGs	Sustainable Development Goals
SEARO	South-East Asia Regional Office
SGBD	Sexual and Gender Based Violence
SHR	Sharable Health Record
SIP	Sector Investment Plan
SOP	Standard Operating Procedures
SSK	Shasthyo Surokhsha Karmasuchi
SWAp	Sector-Wide Approaches
T/A	Technical Assistance
TBA	Traditional Birth Attendant
UFPO	Upazila Family Planning Officer

Abbreviations	Name
UHC	Universal Health Coverage
UHFWC	Union Health and Family Welfare Center
UH&FPO	Upazila Health & Family Planning Officer
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UPHCSDP	Urban Primary Health Care Services Delivery Project
USC	Union Sub-center
UzHC	Upazila Health Complex
WHO	World Health Organization

Executive Summary

Bangladesh Health Sector Policies and Overview

The health sector in Bangladesh has so far significantly reduced infant and maternal mortality rates through progress in immunization and family planning. In recent years, however, health human resource shortages, urban-rural disparities, and an increase in non-communicable diseases (NCDs) have become challenges. The government aims to achieve Universal Health Coverage (UHC) by 2032, but health expenditures are low at only 2.36% of GDP (in 2021), and out-of-pocket costs account for about 72.99% (in 2023) of total health expenditures, making it an urgent issue. The government has introduced the Sector Wide Approach (SWAp) since 1998 and has implemented four rounds of SWAp from 2017 to 2024. During this period, the introduction of a health insurance system and other measures have been considered, but the need for both financial sustainability and equitable health service delivery has hindered the efficient delivery of health services, which was further exacerbated by the polarization of the Ministry of Health and Family Welfare between the Health Services Department and the Medical Education and Family Welfare Department in 2017.

Bangladesh's 5th Health, Population and Nutrition Sector Development Plan (HPNSP), which was to be implemented starting in August 2024, was envisioned to be funded 76.05% by the government development budget and the remaining 23.95% by donor funds from the World Bank, ADB, JICA, and others (as of May 2024). However, after the political changes in August 2024, the 5th HPNSP was not approved as of February 2025 under the interim government.

Donor Support

The Government of Bangladesh has been formulating a health sector program since 1998, and financial support for the health sector program has been provided through the SWAp approach, led by the World Bank. While some bilateral donors participated in the SWAp until the 4th HPNSP, UN agencies and JICA have supported the HPNSP outside of the SWAp targeting individual projects, with JICA's support focused on improving maternal and child health services, nursing education, and non-communicable diseases control. For the 5th HPNSP, the World Bank approved to provide support with a program-for-results (P4R) loan in December 2024. The Bank's P4R sets indicators for loan disbursements, focusing on improving access to health and nutrition services, strengthening health systems, and building resilient health systems to cope with climate change. ADB was also examining the possibility of providing its results-based loan, however, due to uncertainty over the implementation of the 5th HPNSP, it suspended its preparation in February 2025.

Non-Communicable Disease Control

The 5th HPNSP identifies non-communicable diseases (NCDs) control as one of its key pillars. The Operational Plan (OP) aims to improve facilities for providing quality health services at the upazila level hospitals (UzHC), ensure equitable access to NCDs, mental health, and care for the elderly in primary health care (PHC), and

reduce mortality and morbidity because of NCDs.

However, Bangladesh faces the following challenges in addressing NCDs

- Shortage of doctors and nurses (especially shortage of doctors) at the NCDs corner of upazila hospitals: There is a shortage of specialist doctors, nurses, paramedics, and other personnel who can diagnose and treat NCDs, and in some cases existing medical personnel do not have sufficient knowledge and skills regarding NCDs.

- Lack of facilities, equipment, and drugs at NCDs corners: In particular, blood glucose meters and measuring slips, and drugs necessary for the treatment of NCDs are often lacking at public health facilities, requiring patients to purchase them at private pharmacies.

- Inadequate knowledge and scope of work of community health workers: NCDs are not included in medical knowledge training because NCDs control is retrofitted to the functions of community health workers.

- Follow-up and referral systems are not yet established: referral systems from community health centers to upazila hospitals and from upazila hospitals to district hospitals have not been established.

Direction of JICA's support for NCDs

JICA has been providing support for NCDs through ODA loan and technical cooperation, including the development of primary medical facilities, provision of medical equipment, and introduction of WHO-PEN. In the future, JICA may provide assistance in the following directions

- Establishing an appropriate referral system: To aim to alleviate the concentration of patients in the NCDs corner and improve the efficiency of treatment by establishing a screening, follow-up, and back-referral system for patients using the Union Sub-Center.

Nursing Education and Services

Improving the quality of nursing services and strengthening nursing education are key goals of the 5th HPNSP. Specifically, the needs are to establish a system of continuing professional development (CPD) linked to career development, to strengthen the expertise of nurses in specific fields, and to develop specialized educational programs.

Nursing education and services in Bangladesh face the following challenges

- Nurse shortage and regional maldistribution: There is an absolute shortage of nurses, especially in rural areas. Many rural health care institutions do not meet the staffing standards set by the government, leading to poor quality of health care services.

- Nurses' competence and quality challenges: It has been noted that many nurses do not have sufficient clinical experience or opportunities for continuous training after graduation, thus lacking basic nursing skills and knowledge. In particular, there is a shortage of nurses with specialized knowledge and advanced skills.

- Disconnect between practical skills and theory: In nursing education, students are unable to demonstrate the practical skills required in clinical settings immediately after graduation because of the education focused on classroom learning and lack of opportunities for clinical practice. In addition, the quality and number of faculty members at educational institutions are also insufficient.

- Inadequate Continuing Professional Development (CPD): The CPD system is not fully functional, limiting opportunities for nurses to continuously improve their skills throughout their careers.

- Inadequate accreditation system for nursing and midwifery education institutions: Although an accreditation system for nursing and midwifery education institutions exists, it is not enforced, and the accreditation system itself is not fully functional. This makes it difficult to ensure the quality of educational institutions.

Direction of JICA Support for Nursing Education and Nursing Services

JICA has been contributing to the development of nursing human resources in Bangladesh through support for career path building and continuing education for nurses, obtaining accreditation for public nursing colleges, and improving on-site nursing education. The following are possible directions for future support.

- Development of nursing education materials: In order to improve the poor quality of education caused by the shortage of teachers in nursing education institutions, general-purpose teaching materials and teacher training manuals will be developed, especially for important subjects.

- Development of manuals and Standard Operating Procedures for nursing: Nursing manuals and standard operating procedures that do not exist in public medical institutions. They should be created to establish standardized nursing care of a certain quality that is not based on individual experience.

- Strengthening subject-based nursing education: To strengthen the expertise of nurses as called for in the 5th HPNSP, develop a system and framework for providing subject-based nursing education that aims to strengthen the skills of nursing college faculty members.

- Strengthen continuous professional development for nurses: To strengthen the practical ability of in-service nurses, which is directly related to the improvement of the quality of nursing services, including the improvement of management in the medical field.

-Development of specialized clinical nurses: Since the training of professional nurses will become possible only when the number of nurses is increased and their medical knowledge and service delivery skills are at the level they should be, it is necessary to develop professional nurses to provide more advanced nursing services at the timing when that level is in sight. Support the design of a framework for the training of nurses and pilot activities.

- Support for establishing appropriate institutional accreditation system for nursing and midwifery educational institution: After making the accreditation system for nursing colleges mandatory, support capacity building

of BNMC (Bangladesh Nursing and Midwifery Council) to strengthen the enforcement of the accreditation system and promote its spread.

-Supporting the learning environment for nurses for practical training: Since there is no practice equipment for nurses to practice and improve their skills in medical facilities, while the facilities of the Regional Nursing and Midwifery Training Center are inadequate, the project will strengthen the foundation for continuous skills development by providing practice equipment as well as faculty members capable of teaching practice sessions.

Large Infrastructure Needs

In the 5th HPNSP, the construction and renovation of health care facilities is an important part of the 5th HPNSP, with the Directorate General of Health Services (HSD) and the Medical Education and Family Welfare Department (MEFWD) each having jurisdiction over independent operational plans (PFD-HS and PFD-MEFWD). Their objectives are to expand services, upgrade existing facilities, develop repair plans, and begin operations in a timely manner after construction. However, there have been significant delays in the actual construction of facilities and lack of coordination with medical staffing and pharmaceutical supply after completion.

Excessive bed occupancy, especially concentration in large urban hospitals due to regional maldistribution, aging facilities, and lack of equipment are serious issues, which have led to a decline in the quality of care, risk of nosocomial infections, and increased out-of-pocket costs for patients. In particular, Dhaka Medical College Hospital (DMCH) is the top referral hospital in the country, but its aging buildings and overcrowding make it difficult to provide adequate medical care.

Based on the needs of the Bangladesh government, the survey team considered support for large-scale infrastructure development. The selection criteria for support were: reconstruction or expansion of existing facilities rather than construction of new ones; availability of land for construction; existence of existing plans; safe areas; and a budget size suitable for ODA loan.

1. Proposal-1: High development impact project with three large hospitals in Dhaka city: improve healthcare delivery capacity and alleviate congestion in the country through the reconstruction and expansion of major hospitals in Dhaka city (Bangladesh Children's Hospital and Institute (BSHI), Sir Salimullah Medical College Hospital (SSMCH), and National Institute of Cardiovascular Diseases (NICVD)), which are overcrowded.

2. Proposal-2: Projects to be considered in conjunction with technical cooperation: By improving facilities of the targets of technical cooperation, the project will promote the quality of nursing education and contribute to the establishment of a sustainable healthcare service delivery system.

3. Proposal-3: Project in consideration of future countermeasures against NCDs: In order to cope with the increase in the number of patients with non-communicable diseases (NCDs), the project should consider the development of facilities specialized for the treatment of NCDs and specialized wards.

Needs Related to the Digitalization

For work related to digitalization, each of MIS-DGHS in HSD and MIS-DGFP in ME&FWD have established and managed core information databases based on DHIS2 and digitized information related to health services and family planning, respectively. However, the introduction of systems has been tied to the locally targeted donor supports without considering the entire health administration, having led to duplication of information and lack of coordination among systems, especially between the Health Services Department and the Medical Education and Family Welfare Department. In addition, private medical institutions have also established their own information systems, which are not linked to the public sector. Under these circumstances, it is necessary to realize an open platform-compliant ecosystem in line with existing strategies, frameworks, and legal systems.

JICA's support targets recognized needs in the areas of improving the quality of medical services and operational efficiency through digitalization of overall hospital services, including the introduction of electronic medical records in hospitals. In particular, efficient medical information operation and sustainable operation systems can be expected to be established on the premise of maximum utilization of existing HIS such as OpenMRS+.

Consideration of Aid Policies and Approaches

JICA has so far supported projects implemented under the Health Sector Program outside the framework of the SWAp, both in terms of ODA loan and technical cooperation. While this approach is in line with the objectives of the Health Sector Program, it is incompatible with the SWAp, which uses the budget execution mechanism of the Government of Bangladesh, as JICA's own implementation procedures are different. If the 5th HPNSP is implemented as a SWAp and JICA continues to provide assistance outside of that framework, it is likely that it will continue to encounter the challenges that previous projects have encountered.

With regard to the introduction of performance-linked loans requested in this study, the survey team examined and proposed performance-linked indicators in the areas of non-communicable disease control and nursing education, which are the priority areas of JICA's assistance by reviewing the content of the disbursement-linked indicators of the World Bank P4R loan and, taking into consideration the ADB's proposed performance-linked indicators. If the 5th HPNSP inherits the evaluation mechanism of the result indicators used in the 4th HPNSP, it will be possible for JICA to verify its's own result indicators by utilizing this mechanism. In addition, if technical cooperation that contributes to the achievement of individual result indicators is also provided, it will support the achievement of the result indicators.

Future cooperation policy

Based on the recognition of the current situation where medical services that should be provided by existing facilities are not being provided due to a shortage of personnel in the field, including in the field of medical education, which is at the root cause of structural issues in the health sector, and on the judgment that it will take a long time to solve this problem, the survey team considered support measures for medical service

provision in the form of ODA loan, grant aid, and technical cooperation from the perspective of improving the current situation even a step toward the provision of medical services as they should be.

Chapter 1 Overview of the Survey

1.1 Background of the Survey

The health sector of the People's Republic of Bangladesh (Bangladesh) has achieved significant progress in recent decades, notably increasing life expectancy and reducing the under-five mortality rate. Despite these, Bangladesh continues to face challenges in achieving the Sustainable Development Goals (SDGs) and realizing the Universal Health Coverage (UHC). In particular, the response to the outbreak of the new coronavirus disease (COVID-19) exposed vulnerabilities in the health sector, including insufficiency of emergency preparedness and a shortage of medical professionals. These gaps raised the need for strengthening the health sector.

The current situation in the healthcare system of Bangladesh exhibits a shortage of health facilities, particularly in rural areas, including challenges with the equipment procurement and maintenance at existing health facilities. In particular, although renovations and refurbishments are being carried out, some of the existing facilities in rural areas have already existed shortly after their independence in 1971 and many of them are now in a state of advanced deterioration. Furthermore, due to concerns about the quality of public healthcare, many people use private health facilities at their own expense (particularly in urban areas). While an underdeveloped social security and public health insurance system, including challenges with access to health services, bring the ratio of out-of-pocket expenses up to 74%[1]—a rate higher than neighboring countries such as India and Nepal (50% and 54%, respectively) (WHO, 2020). In addition, the lack of a centralized patient information system leads to ineffective disease prevention and follow-up treatment. The absence of a proper referral system between primary, secondary, and tertiary health facilities, leads to patient concentration in secondary and higher facilities, and a strain on higher-level facilities leads to a decline in the quality of health services. Moreover, according to the 2021 data from the Ministry of Health and Family Welfare (MoHFW), although the number of health professionals in Bangladesh has been increasing in recent years, the number of health professionals remains at a ratio of 6.7 doctors and 6.1 nurses per 10,000 people. When this is compared to the average for the Asia-Pacific Region (14 doctors and 30 nurses per 10,000 people), both figures from Bangladesh and the Asia-Pacific region are still low since the SDGs recommends at least 44.5 (doctors, nurses and midwives) per 10,000 people (WHO, 2022). The quality of medical education institutions also needs to be improved, which also contributes to a low quality of their health services. On the other hand, the neonatal mortality rate (from 22 (2010) to 16 (2021) per 1,000 live births) [2], the under-five mortality rate (from 49 (2010) to 27 (2021) per 1,000 live births), and the maternal mortality rate (from 258 (2010) to 123 (2020) per 100,000 live births) have improved (WHO, 2019 and World Bank, 2020). But due to changes in eating habits and lifestyles, noncommunicable diseases (NCDs) account for 63.1% of the causes of death among the population

[1] It is said that the reason for this is that when a person receives a medical examination and diagnosis at a public health facility, which is normally free of charge, if the prescribed medicine is not in stock at the public health facility, it is necessary to purchase it at a pharmacy in the town, and that in urban areas, there is an increasing number of people visiting private medical institutions.

[2] Trends and Inequalities in Neonatal Mortality Rate in Bangladesh: Evidence from Cross‐sectional Surveys, National Library of Medicine. https://pmc.ncbi.nlm.nih.gov/articles/PMC11310099/#:~:text=births%20by%202030.-,5,to%2027%20per%20live%20births (accessed on March 4, 2025)

(WHO, 2021), giving importance to the prevention and early detection of diseases through the strengthening of healthcare service providers and preventive awareness activities.

The Government of Bangladesh has set out priority issues for achieving the SDGs in its national development plan—the 8th Five-Year Plan (FY2020/21-FY2024/25). Among its priority strategies include strengthening human development, including the health sector. In line with this, the Government of Bangladesh formulated the 4th Health, Population, and Nutrition Sector Program (January 2017 to June 2024) (4th HPNSP), which aims to achieve UHC by strengthening the comprehensive health system and improving the quality of health services. The 4th HPNSP aims to ensure that all citizens enjoy good health and well-being by expanding access to high-quality and equitable health services. It further states continued support for infectious diseases, maternal and child health, family planning, and nutrition, as well as measures to combat NCDs for the poor. The program comprises approximately 30 operational plans (OPs), including plans to increase the number of nursing staff, improve the quality of nursing services, and address NCDs. The 5th Health, Population, and Nutrition Sector Program (5th HPNSP) is currently being developed as the successor to the current sector development program, which is aimed to start in 2025.[3]

The "Information Collection Survey on Health Sector Programs in Bangladesh" (hereinafter referred to as the Survey) aims to identify and analyze various issues in the health sector of Bangladesh. It also aims to assess the status of initiatives by Japan and other donors in the same sector, and to collect and validate essential information for examining future support strategies and effective aid approaches.

1.2 Objectives of the Survey

The purpose of the Survey is to identify various challenges in Bangladesh's health sector, to map ongoing efforts being made by Japan and other development partners, and to collect and validate information to determine the direction of future support and effective cooperation approaches.

1.3 Contents and Methodology

In order to make proposals regarding JICA's cooperation with Bangladesh, which is the main purpose of the Survey, the Survey Team gathered the necessary information through literature research, interviews, and information gathering by subcontracted survey.

Due to the political turmoil in the country from August 2024 onwards and the continuous changes in the assignment of senior staffs at relevant organizations, including MoHFW by the interim government, the field survey in Bangladesh was conducted when the political turmoil had calmed down from November 2024 until February 2025.

[3] In February 2025, the interim government suggested to each development partner that the 5th HPNSP would not be formulated and that future efforts would be pursued under a framework separate from the sector program. However, as this survey had already reached its final stage and no framework to replace the sector program had been specified, this report was prepared based on information available at the time when the 5th HPNSP was awaiting formulation and approval.

【Contents of the Subcontracted Survey】

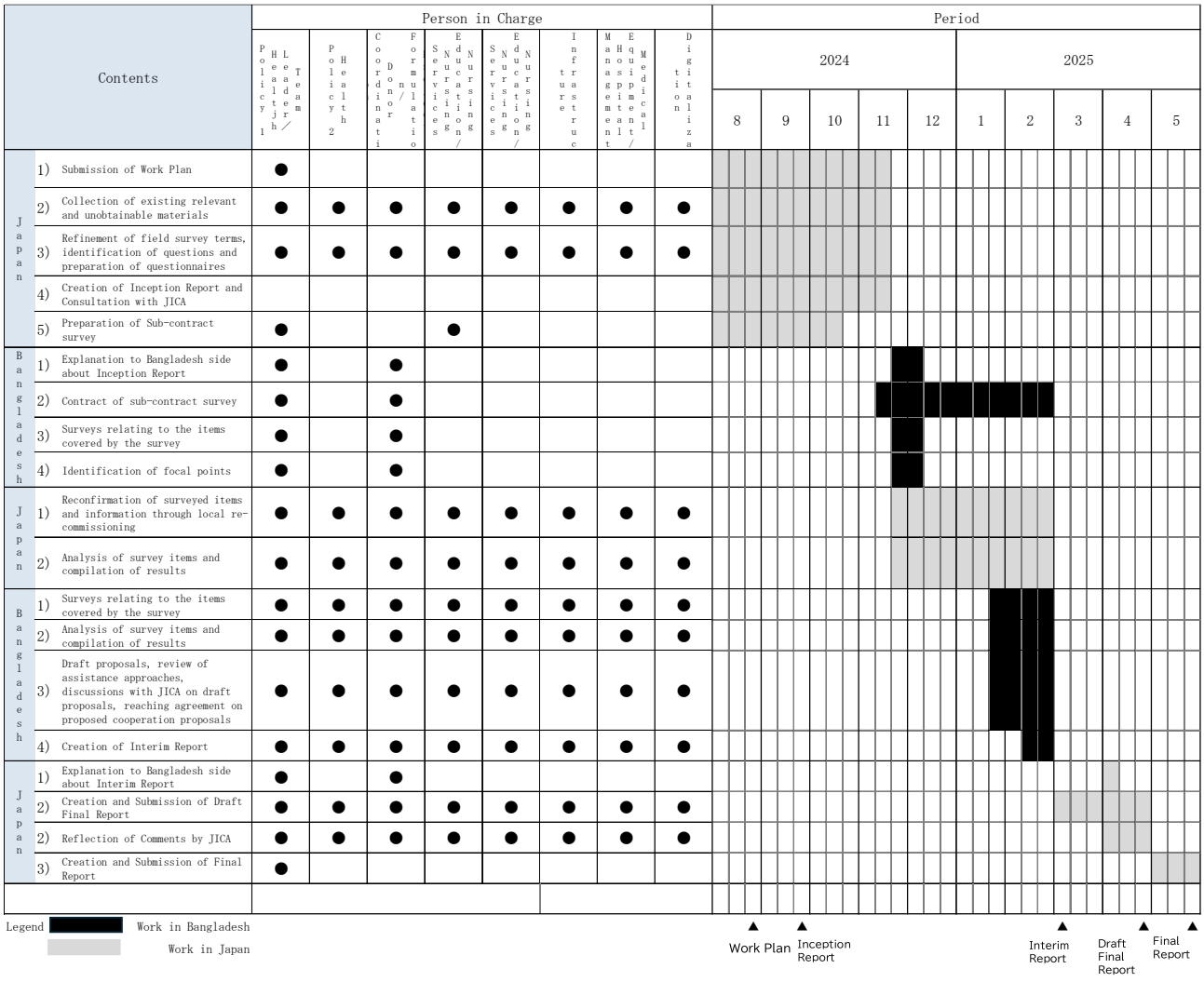
Table 1-1: Overview of the Subcontracted Survey

Period	10 October 2024 – 28 February 2025
Survey Contents	The following survey items include on-site information gathering and support for interviews, etc. 1) Gathering information on the latest trends in Bangladesh related to the 5th HPSNP and OPs 2) Gathering information from relevant organizations indicated in the 5th HPSNP/OPs (on-site survey) 3) Gathering information from the MoHFW and related administrative organizations (on-site survey) 4) Confirming and gathering information on the latest trends in the health sector
Methodology	・Questionnaire Survey: Basic information (facilities, equipment, beds, departments, etc.), human resources (number of medical professionals (and breakdown), number of specialists, etc.) Medical services (number of outpatients and inpatients, average length of stay, number of operations, number of births, number of deaths, disease breakdown, number of tests, etc.) Finance (revenue (and breakdown), expenditure (and breakdown), breakdown of procurement costs for drugs, etc.)
Workflow	Announcement and selection: August 2024 – 30 September 2024 - Pre-negotiation（discussions about survey contents: 1 – 10 October 2024 - Contract: 10 October 2024 - Implementation : 10 October – mid November 2024（Later, the survey period was extended until the end of February 2025）
Deliverables	- Interim Report: End of December - Draft Final Report: Early February 2025 - Final Report: End February 2025
Inspection	Submission of Interim Report and Final Report
Team Members	Team Leader, Deputy Team Leader, Researcher (3)
Selection Method	Price Proposal (30%) and Technical Proposal (70%)
Conditions	Experience in health sector survey in Bangladesh
Subcontracted Company	Dobey International Ltd.（representative）

Source: Survey Team

1.4 Work Schedule

The work schedule is shown in Figure 1-1. The Survey Team was flexible to the field survey schedule, as coordination was made with the relevant organizations while paying attention to the local political situation.



Source: Survey Team

Figure 1-1: Workflow of the Survey

Chapter 2 Overview of Bangladesh

This chapter summarizes and confirms the overview of Bangladesh.

2.1 General Information

Located in South Asia, Bangladesh is one of the most densely populated countries in the world, with a population of approximately 170 million (estimated for 2023). The country's official language is Bengali. About 90% of the population is Muslim, but Hinduism, Buddhism, and Christianity are also practiced.

Bangladesh is a parliamentary democratic republic, with Mohammad Shahabuddin serving as President. As of March 2025, the position of Prime Minister remains vacant following the resignation of former Prime Minister Sheikh Hasina on 5 August 2024 due to the political turmoil in August 2024. The situation led to the formation of an interim government on 8 August 2024, with Mohammed Yunus serving as Chief Advisor (as of March 2025).

2.1.1 Geography and Climate

Geographically, much of Bangladesh consists of deltaic areas formed by the Ganges, Brahmaputra, and Meghna River basins. While the country has abundant water resources, 75% of its land is less than 10 meters above sea level, making it susceptible to natural disasters such as floods and cyclones. It has also been noted that the region is susceptible to sea level rise due to climate change. Bangladesh has a tropical monsoon climate, with the rainy season lasting from June to October and the dry season lasting from November to May.

2.1.2 Brief History

The history of Bangladesh dates back to the 1947 Indo-Pakistani partition, when the country was initially part of Pakistan as East Pakistan but became independent as Bangladesh after the 1971 War of Independence. The country then underwent a military regime, followed by the transition to a democratic regime in 1990. A brief history of Bangladesh since 1990 is as follows.

1990.12	President Ershad resigned, and a transitional government was formed.
1991.02	General election was held, and Khaleda Zia of the Bangladesh Nationalist Party (BNP) became Prime Minister.
Same year	Transition to a parliamentary cabinet system, greatly limiting presidential power.
1996	Change of Government: Awami League (AL) won the 1996 elections and Sheikh Hasina became Prime Minister. The first peaceful change of government is achieved.
2001	BNP won the general election, and Khaleda Zia again became Prime Minister; BNP returned to power.
2006	Conflicts over the elections intensified, leading to massive protests between the BNP and the AL.
2007	The military intervened and a state of emergency was declared. Elections were postponed and a military-led interim government was formed. Leaders, Khaleda Zia and Sheikh Hasina were temporarily arrested as part of an anti-corruption campaign.
2007-2008	Political crisis and military-led interim government.
2008.12	General elections were held and the Awami League won handily. Sheikh Hasina returned as Prime Minister.

2014	General Election: Awami League won, and Sheikh Hasina's government continued in power.
2018	General Election: The opposition BNP boycotted the election, the Awami League won handily, and Prime Minister Hasina served a fourth term.
2024	Awami League again won the general election; Prime Minister Hasina continued in power.
2024.08	Due to political turmoil, Prime Minister Hasina resigned on 5 August, and a transitional government is formed on 8 August, with Mohamed Yunus as Chief Advisor.

2.2 Economy and Industry

This section provides an overview of the economic and industrial situation in Bangladesh through its key macroeconomic indicators and other indicators related to industrial structure, employment, and poverty.

Bangladesh's economy is primarily driven by the garment industry, which contributes significantly to the country's foreign currency earnings. Agriculture also plays a vital role, with major productions including rice, jute, tea, and other crops. In recent years, the development of the Information and Technology (IT) and service industries have gained prominence. Bangladesh's gross domestic product (GDP) stands at approximately USD 460 billion, with a per capita GDP reaching USD 2,624 (IMF 2024 estimate)[4]—closely aligned with India's per capita GDP of USD 2,697 (IMF 2024 estimate)[5]. This economic progress is also the reason why Bangladesh is poised for graduation from the Least Developed Country (LDC) on 26 November 2026.[6]

2.2.1 Basic Indicators

Bangladesh has experienced robust economic growth in recent years. In 2019, the country achieved a record high GDP growth rate of 8.15%, but growth slowed to 3.5% in 2020 due to COVID-19. In 2022, the country exhibited a recovery in GDP growth rate at 7.1%, but inflation (9.3%, in 2023) remained high (Ministry of Foreign Affairs HP) [7].

Table 2-1: Economic Growth Rate in South Asian Countries

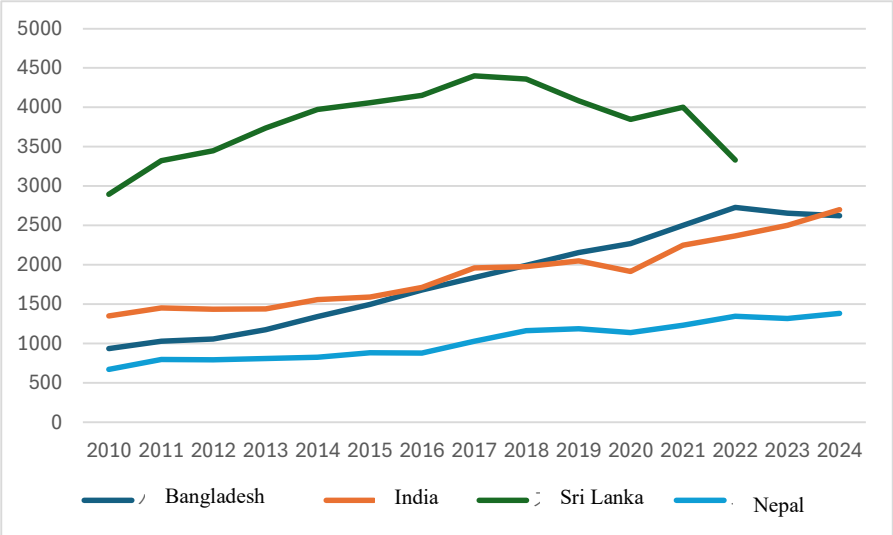
	2020	2021	2022	2023	2024
Bangladesh	3.45	6.94	7.1	5.78	5.4
India	-5.78	9.69	6.99	8.15	7.02
Sri Lanka	-4.63	4.21	-7.35	N/A	N/A
Nepal	-2.37	4.84	5.63	1.95	3.13

Source: Generated by the Survey Team from IMF-World Economic Outlook Databases (October 2024)

Gross national income (GNI) per capita is also on the rise, reaching USD 2,687 in 2022. To support this situation, the government has set forth "Vision 2041" aiming to become a high-income country by 2041. However, while the growth rate remained high in 2023, inflation reached 9.3%[8]. To address these challenges,

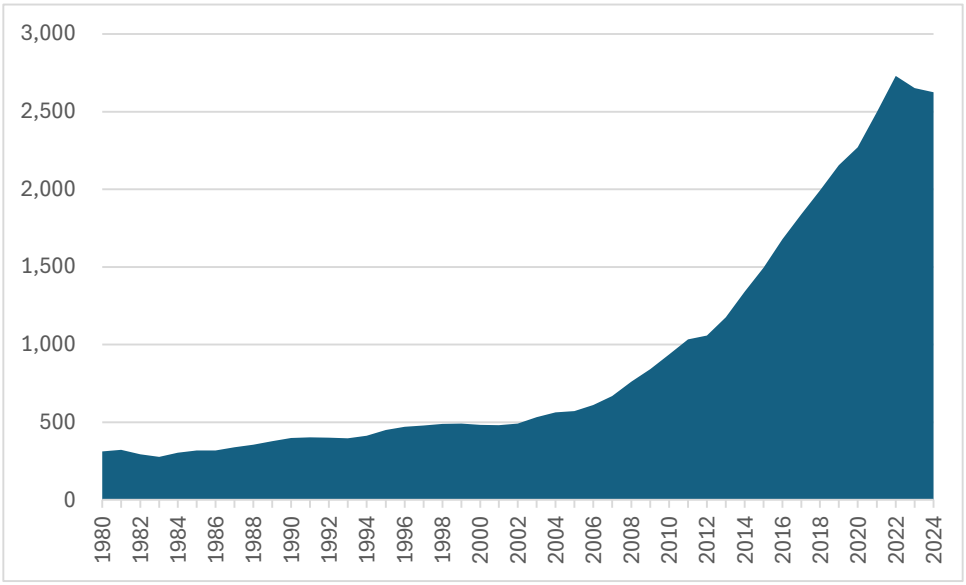
[4] IMF World Economic Databases 2024 (October 2024) https://www.imf.org/en/Publications/SPROLLS/world-economic-outlook-databases#sort=%40imfdate%20descending (accessed on 3 March 2025)
[5] IMF World Economic Databases 2024 (October 2024) https://www.imf.org/en/Publications/SPROLLS/world-economic-outlook-databases#sort=%40imfdate%20descending (accessed on 3 March 2025)
[6] Decided by the 10th UN Development Policy Committee (March 2018) and the 13th UN Development Policy Committee (February 2021).
[7] JETRO Dhaka Office, 2024.04 Current Situation and Policies Regarding Graduation from LDC Status of Bangladesh
[8] JETRO Dhaka Office, 2024.04 Current Situation and Policies Regarding Graduation from LDC Status of Bangladesh

the following aspects must be maintained: sustainable growth, industrial diversification, infrastructure development, and an improved investment environment.



Source Generated by the Survey Team from IMF-World Economic Outlook Databases (October 2024) [9]

Figure 2-1: Gross Domestic Product (GDP) Per Capita（USD）



Source: International Monetary Fund[10]

Figure 2-2: GDP per Capita（USD）

[9] UN Dashboard, https://dashboards.un.org/public/sense/app/65085e0b-7cee-4de1-b1b2-7d233c4b25ce/overview, (accessed on 17 February 2025)

[10] International Monetary Fund, World Economic Outlook Database, October 2024 (accessed on 17 February 2025)

2.2.2 Industrial Structure

In 2023, the share of GDP by industry in Bangladesh reached 13.0% for the primary industry (agriculture), 35.5% for the secondary industry (textiles, etc.), and 51.5% for the tertiary industry (services, etc.) (Bangladesh Bureau of Statistics). Based on the 2000 data, a gradual change in the industrial structure is seen in the GDP decrease in the share of agriculture, and an increase in the secondary and tertiary industries.

Table 2-2: Characteristics of Industrial Composition

Sector	GDP Ratio (2000)	GDP Ratio (2023)	Major Changes
Agriculture	Approx. 25-30%	Approx. 11-12%	The composition ratio decreased significantly. However, there are still many workers.
Industry (Manufacturing)	Approx. 20-25%	Approx. 33-35%	Rapid growth, especially in RMG. Pharmaceuticals, cement, and leather are also emerging.
Service	Approx. 40-50%	Approx. 52-54%	Urban services such as finance, telecommunications, IT, education, and healthcare are expanding.

Source: Created based on the information of Bangladesh Bureau of Statistics by the Survey Team

On the other hand, while about 38% of the labor force is engaged in agriculture, the percentage of agriculture has been low in recent years due to urbanization and industrialization.

Table 2-3: Percentage of Employment by Industry

Sector	Employment Rate (2000)	Employment Rate (2023)	Points of Change
Agriculture	Approx. 63%	Approx. 38-40%	The number of workers decreased significantly. However, it is still the largest sector.
Industry (Manufacturing)	Approx. 10-12%	Approx. 21-23%	Expansion especially in the garment, pharmaceutical, and construction industries.
Service	Approx 25-27%	Approx. 36-38%	Urbanization, education, healthcare, retail, and IT led the growth.

Source: Created based on the information of Bangladesh Bureau of Statistics by the Survey Team

2.2.3 Japanese Companies Operating in Bangladesh

The overseas business expansion of Japanese companies in Bangladesh has grown rapidly. As of 2023, 338 Japanese corporations/products are in the process of expanding their operations in the country. In the context of Bangladesh's rapid economic growth, a diverse range of Japanese businesses—including medical equipment manufacturers, start-up businesses, construction companies, and even Japanese hospitals—are expanding within the market. An overview of major Japanese construction companies and medical equipment manufacturers are shown in Table 2-4.

Table 2-4: Major Construction Companies and Medical Equipment Manufacturers

		Name	Contact
1	Construction	Shimizu Corp.	Concord I-K Tower 5th Floor, Prot #02, Block # CEN(A), North Avenue, Gulshan-2, Dhaka
2		Obayashi Corp.	10th Floor, House 133, Road 12, Banani, Dhaka
3		Tekken Corp.	Concord Baksh Tower, 6th Floor, Plot No. 11A, Road No. 48, Block-CWN, Kemal Ataturk Avenue, Gulahan-2, Dhaka
4		Tokyu Construction	4th Floor, ANZ Huq Eleven Square, Plot# 1, Block# H, Road# 11, Banani, Dhaka
5		Konoike Construction	Plot# 21, Road #13, Block-G, Niketan, Gulshan, Dhaka 1212, Bangladesh
1	Equipment	Shimadzu	UTC Building, Level - 9 (North-west), 8 Panthapath, Dhaka-1215, Bangladesh.
2		Fujifilm	NAVANA ZOHURA SQUARE, SUITE #403, 4TH FLOOR, 28, KAZI NAZRUL ISLAM AVENUE, BANGLAMOTOR, SHAHBAGH PS, DHAKA 1000
3		Olympus	SEL Rose-N-Dale" Office No-1102 (11th Floor), 116 KaziNazrul Islam Avenue, Ramna Dhaka-1000
4		Nihon Kohden Corp.	Concord I-K Tower 5th Floor, Prot #02, Block # CEN(A), North Avenue, Gulshan-2, Dhaka
5		Kyoto Kagaku	10th Floor, House 133, Road 12, Banani, Dhaka

Source: Survey Team

2.2.4 Employment

The labor market in Bangladesh is transitioning from agriculture to industry and services. Of the total population, 70 million people, or 40% of the total population, are in the labor force. However, informal labor remains significant, with 85.1% considered to be in informal employment (informal sector) [11]. This is particularly prevalent in the agricultural sector, where the percentage of informal workers is significantly high at 97.8%. Informal labor also exists in major industries such as construction (93.6%), retail trade (92.8%), and transportation and communication (93.3%). Regionally, informal employment stands at 92.3% in rural areas and 76.0% in urban areas. By gender, the informal employment rate for women is 92.6%, higher than that of men at 86.8%.

2.2.5 Poverty[12]

Bangladesh has experienced consistent economic growth over the past several decades (see Figure 2-2). Although the poverty rate remains high, there has been significant improvement in recent years.

[11] Bangladesh Employers' Federation (BEF)
[12] There is a standard that the amount of calories consumed per person per day is below the standard value of 2,112 kcal and the domestic poverty line, which is calculated from non-food expenditures.

In the early 1990s, the poverty rate in Bangladesh was very high. According to a 1991 UN Donor Study, the poverty rate was 48.9% during a period marked by political instability, economic hardship, agricultural dependency, and high population growth rates. In 2000, the poverty rate reduced to 44%, due in part to the government's poverty eradication measures. By 2020, the poverty rate had fallen to 20.9%, further falling to 11.9% in 2021-2022 according to an estimate by the World Bank.

The poverty problem in Bangladesh is complex and is caused by a combination of various factors. Key contributing factors include dependence on agriculture, unequal education, expansion of slums due to urbanization, and a high poverty rate due to the traditional social structure that restricts women's participation in economic activities. The Government of Bangladesh has committed to the eradication of extreme poverty by the year 2031 through “Vision 2041”, along with other policy measures.

2.3 Political Situation

In August 2024, Bangladesh experienced major political turmoil when former Prime Minister Sheikh Hasina resigned and fled the country. This was followed by the appointment of Nobel Peace Prize winner Muhammad Yunus as Chief Advisor to the transitional government. This interim government prioritized the restoration of law and order and is working to stabilize security. As of February 2025, changes in the senior officials of the administrative structure are still ongoing.

2.3.1 Domestic Administration

The domestic administration system of Bangladesh is as follows:

Bangladesh is a constitutional republic operating under a parliamentary democracy. The President serves as the head of state, primarily a ceremonial position, while the Prime Minister serves as the head of the executive, holding the de facto supreme power. The legislative branch consists of a unicameral National Assembly with 350 seats. Of these, 300 seats are directly elected, and 50 seats are reserved for women, in proportion to the number of seats won by political parties. The judiciary is independent and is headed by the Supreme Court.

The administrative system in Bangladesh retains some influence from the British colonial period, and the bureaucracy is regarded as an important instrument for governance. Its nature has remained largely unchanged since the transition to a democratic system, with the exception of an increase in the number of ministries and related agencies.

The central administration employs a two-tiered administrative system—consisting of the upper and lower tires. The upper tier is the central secretariat at the national level, consisting of ministries and departments that formulate policies. On the other hand, the lower tier consists of ‘line’ departments and directors attached to ministries and departments, which are primarily responsible for administrative tasks, service delivery, and

implementation of government development programs (JICA, 2022) [13].

The local administration follows a six-tiered hierarchical structure, with the top level being the divisions, from which it is divided into districts.

As of 2021, Bangladesh has 8 divisions and 64 districts. Although the highest administrative unit is the division, the most important unit of local administration is the district. Under them, Upazila and unions are established, while urban areas have City Corporations for core cities and Pourashava for local cities. Health administration is discussed in Chapter 5, and although it is similar to the above, districts play a major role in rural areas.

Table 2-5: Levels of Local Administration

Level	Name	Figure (2023)
1	Division	8
2	District/Zilla	64
3	Upazilla	495
4	Union/Parishad	4,571
5	Village/Ward	Approx. 87,000
6	City Corporation &Municipality	by city area

Source: Created by the Survey Team based on the information of National Bureau of Statistics

2.4 National Development Strategy

Since 2020, the Government of Bangladesh has formulated and implemented the following development plans to achieve sustainable economic growth and social development.

(1) The 8th Five Year Plan（8th FYP: July 2020 – June 2025）

This plan was formulated with the aim of achieving “Vision 2041”, which is to become a high-income country by 2041 and an upper-middle-income country by 2031. The following priority issues have been set out in the 8th FYP.

Key Challenges:

- ✓ Rapid recovery from the impact of the COVID-19
- ✓ Accelerated GDP growth, job creation, productivity improvement, and poverty reduction
- ✓ Social inclusion through a comprehensive growth strategy
- ✓ Environmental measures and urban management for sustainable development

[13] JICA, Data Collection Survey on Health Sector in Bangladesh, 2022

- ✓ Promotion of upper-middle-income country status through institutional reform
- ✓ Achievement of the SDGs and graduation from the status of LDC

2.4.2 Historical Background on Health Sector Support

Until the mid-1990s, health sector support in Bangladesh was implemented through more than one hundred individual projects. This led to inconsistencies and challenges in terms of cost-effectiveness. To address these challenges, the MoHFW decided to introduce the Sector-Wide Approaches (SWAp). The objective of the SWAp is to 1) expand the reach of essential health and family planning services; 2) improve cost-effectiveness in service delivery; and 3) integrate NGOs and the private sector into the service delivery mechanism. Since the first SWAp launched in 1998, successive SWAps have been implemented as shown in Table 2-6. The SWAp initiatives have been supported by pooled donor funding, with the World Bank serving as the lead financing partner.

Table 2-6: Past Health Sector Programs

	Title	Period
1	Health and Population Sector Program (HPSP)	1998 - 2002
2	Health, Nutrition and Population Sector Program (HNPSP)	2003 - 2011
3	Health, Population and Nutrition Sector Development Program (HPNSDP)	2011 - 2016
4	Health, Population and Nutrition Sector Program (HPNSP)	2017 - 2024

Source: Created by the Survey Team based on the information of MoHFW[14]

2.4.3 The Fourth (4th) HPNSP

Based on the implementation of the 1st through the 3rd SWAps, the 4th HPNSP was developed as an extension of the previous SWAps and as a basis for achieving the SDGs. The 4th HPNSP was also formulated in compliance with the Government of Bangladesh's "Vision 2021" and the Seventh Development Plan. In particular, it aimed to achieve UHC by 2030 under the SDGs.

The 4th HPNSP consists of eight strategic objectives organized into three components: governance, systems, and services, as follows.

Table 2-7: Objectives of the 4th HPNSP

Component 1: Governance and Stewardship of the Sector	
Strategic Objective 1	To strengthen governance and stewardship of the public and private health sectors.
Strategic Objective 2	To undertake institutional development for improved performance at all levels of the system.
Strategic Objective 3	To provide sustainable financing for equitable access to health care for the population and accelerated progress towards universal health coverage.
Component 2: Stronger Health and Nutrition Systems	

[14] MOHFW, the 5th Health, Population and Nutrition Sector Program, Program Implementation Plan

Strategic Objective 4	To strengthen the capacity of the MOHFW's core health systems (Financial Management, Procurement, Infrastructure development).
Strategic Objective 5	To establish a high-quality health workforce available to all through public and private health service providers.
Strategic Objective 6	To improve health measurement and accountability mechanisms and build a robust evidence-base for decision making
Component 3: Quality Health Services	
Strategic Objective 7	To improve equitable access and utilization of quality health, nutrition, and family planning services.
Strategic Objective 8	To promote healthy lifestyle choices within a healthy environment.

Source: HNPSIP[15]

The 4th HPNSP was developed as a strategic investment plan representing the totality of health sector investments to be made by the MoHFW during its implementation period. Based on this, an implementation plan program and detailed implementation plans, called Operational Plans (OPs), were developed for each specific policy area. For example, the OP for Non-Communicable Diseases (NCDs) control covers all activities to be implemented under this domain, with an itemized budget under the OP. Therefore, the activities listed in the OP on NCDs control will be implemented throughout the target period. The OP covers all policy items to be implemented during the target period.

Initially, the 4th HPNSP was launched with 29 OPs. Following the 2020 mid-term review, Upazila Health Care and Health and Gender Support in Cox's Bazar District were added, bringing the final number of OPs to 31. In addition, the OP indicator was revised, increasing from 89 to 151. After a mid-term evaluation in 2022, The program's implementation period at the end of June 2022 was extended until June 2023 and again until June 2024, to ensure that all people in Bangladesh enjoy good health and well-being by expanding access to quality and equitable healthcare in a healthy and safe living environment. The OPs for the 4th HPNSP are outlined in Table 2-8.

[15] Health, Nutrition and Population Strategic Investment Plan （HNPSIP）2016-21, p.25

Table 2-8: OP under the 4th HPNSP

OP No.	Title
OP-01	Sector-wide Program Management & Monitoring (SWPMM)
OP-02	Planning, Monitoring and Research (PMR)
OP-03	Planning, Monitoring and Evaluation (PME)
OP-04	Health Economics & Financing (HEF)
OP-05	Strengthening Drug Administration and Management (SDAM)
OP-06	Health Information System & e-Health (HIS & e-Health)
OP-07	Management Information System (MIS)
OP-08	Procurement, Storage and Supplies Management HS (PSSM-MS)
OP-09	Procurement, Storage and Supplies Management FP (PSSM-FP)
OP-10	Human Resources Development (HRD)
OP-11	Medical Education and Health Manpower Development (ME&HMD)
OP-12	Nursing and Midwifery Education Services (NMES)
OP-13	Training, Research and Development (TRD)
OP-14	Physical Facilities Develpopment (PFD)
OP-15	Improved Financial Management (IFM)
OP-16	Maternal, Neonatal, Child and Adolescent Health (MNC&AH)
OP-17	Maternal, Child, Reproductice and Adolescent Health (MCRAH)
OP-18	National Nutrition Services (NNS)
OP-19	Communicable Disease Control (CDC)
OP-20	Tuberculosis-Leprosy and AIDS STD Program (TBL&ASP)
OP-21	Non-communicable Disease Control (NCDC)
OP-22	National Eye Care (NEC)
OP-23	Community Based Health Care (CBHC)
OP-24	Hospital Services Management (HSM)
OP-25	Clinical Contraception Services Delivery Program (CCSDP)
OP-26	Family Planning Field Services Delivery (FP-FSD)
OP-27	Lifestyle and Health Education & Promotion (L&HEP)
OP-28	Information, Education and Communication (IEC)
OP-29	Alternate Medical Care (AMC)
OP-30	Upazila Health Care (UHC)
OP-31	Health and Gender Support in Cox's Bazar District (HGS-CXB)

Source: MoHFW[16]

2.4.4 The Fifth (5th) HPNSP

The 5th HPNSP underlined achievements such as significant improvements in neonatal mortality, infant mortality, under-five mortality, maternal mortality, total fertility rate, malnutrition, stunting, and underweight made by the

[16] MoHFW, Annual Program Implementation Report (2019)、Endline Evaluation Report of the 4th HPNSP

implementation of the 1st through the 4th SWAp[17]. Therefore, the 5th HPNSP has been formulated based on the outcomes of the 4th HPNSP, while following the previous SWAp methodology. The 5th HPNSP has two major pillars: service improvement and health system strengthening. Table 2-9 lists the strategic objectives and the OPs of the 5th HPNSP.

Table 2-9: Objectives of the 5th HPNSP

	Stratetigic Objectives
1	Increase coverage along with access to and utilization of quality PHC services in both rural and urban areas
2	Strengthen availability and utilization of SRMNCAH services to reduce newborn, infant, child and maternal mortality
3	Increase access and availability along with improving quality of FP services
4	Increase coverage and improve quality of nutrition services through the life cycle approach
5	Manage existing and new/emreging communicable diseases effectively and improve pandemic preparedness through strenghtening necessary capacity
6	Expand and improve services for NCDs including mental health services while ensuring equitable access for vulnerable
7	Improve readiness of secondary, tertiary and specialized care facilities including management medical waste
8	Improve stewardship and coordination throuigh strengthening HNP sector management and governance
9	Improve health professional and para-health professional education in the context o future needs of the health workforce
10	Ensure availability of a quality health workforce through reoganziation and effective HR policy, planning and management
11	Ensure sustainable financing to achieve UHC with special emphasis on targeting the poort and vulnerable
12	Reduce fiduciary risks through strengthening the PFM and audit systems and improving accountability and transparency
13	Strengthen Procurement and Supply Chain Management (PSCM) for increasing availability of HNP commodities
14	Improve regulation and management of the phrmaceutical sector for ensuring quality and affodable medicines
15	Creat platform for digital transformation and increase use of digital technologies for evidence-based decision making

Source: MoHFW[18]

As of mid-February 2025, the 5th HPNSP was originally scheduled to start in July 2024, but it has not yet been approved by the Executive Committee of the National Economic Council (ECNEC). Therefore, the above description is based on the contents of the Program Implementation Plan (PIP) formulated in May 2024. At that time, MoHFW was still considering whether to implement the 5th HPNSP as a sector-wide program. According to an explanation received from the MoHFW in late February, the MoHFW was evaluating which of the three options to choose: 1) to implement it as originally planned; 2) to implement it for a shorter period; or 3) to cancel the implementation and implement individual projects on a Development Project Proposal （DPP） basis. The MoHFW explained that a final decision will be made after further discussions with the Ministry of Finance, the

[17] The 5th HPNSP PIP p.32 In addition, the Evaluation Report of the 4th HPNSP lists the following achievements: improved safety of blood transfusion services in secondary and tertiary hospitals, establishment of standard service protocols, coronary intensive care unit, intensive care unit, expansion of 327 UzHCs (from 31 to 50 beds), 22 state hospitals from 100 to 250 beds.

[18] The 5th HPNSP PIP Volume 1, p.15

Ministry of Planning, and the Development Partners (DPs). [19]

Table 2-10: OPs Under the 5th HPNSP

OP No.	タイトル
OP-01	Sector Wide Program Management and Monitoring (SWPMM)
OP-02	Physical Facilities Development of Health Services (PFD-HS)
OP-03	Improved Financial Management of Health Services (IFM-HS)
OP-04	Human Resources Development of Health Services (HRD-HS)
OP-05	Planning, Monitoring, Research, Training and Development (PMRTD)
OP-06	Procurement, Strarge and Supply Management of Health Services (PSSM-HS)
OP-07	Health Information System & e-Health (HIS & e-Health)
OP-08	Upazila Health Care (UzHC)
OP-09	Hospital Services Management (HSM)
OP-10	Tuberculosis-Leprosy and AIDS STD Program (TB-L & ASP)
OP-11	Primary Health Care (PHC)
OP-12	Maternal, Neonatal and Child Health (MNCH)
OP-13	National Nutrituion Services (NNS)
OP-14	Communicable Disease Control (CDC)
OP-15	Non-communicable Disease Control (NCDC)
OP-16	Mental Health and Disability (MHD)
OP-17	National Eye Care (NEC)
OP-18	Alternative Medical Care (AMC)
OP-19	Commnunity Based Healthcare (CBHC)
OP-20	Lifestyle and Health Education & Promotion (L & HEP)
OP-21	Health Economics and Financing (HEF)
OP-22	Management and Administration of Quality and Affordable Drugs (MAQAD)
OP-23	Nursing and Midwifery Services (NMS)
OP-24	Physical Facility Development of ME&FWD (PFD-ME&FWD)
OP-25	Improved Financial Management of ME&FWD (IFM-ME&FWD)
OP-26	Human Resources Development of ME&FWD (HRD-ME&FWD)
OP-27	Planning, Monitoring and Evaluation (PME)
OP-28	Procurement, Strarge and Supply Management of Family Planning (PSSM-FP)
OP-29	Management Information System (MIS)
OP-30	Maternal Child, Adorescent and Reproductive Heatlh (MCRAH)
OP-31	Clinical Contraception Service Delivery Program (CCSDP)
OP-32	Family Planing Filed Servivce Delivery (FP-FSD)
OP-33	Informaiton, Education and Communication (IEC)
OP-34	Nursing and Midwifery Education (NME)
OP-35	Population Research, Training and Development (PRTD)
OP-36	Medical & Dental Education and Human Resource Development (M&DEHRD)
OP-37	Education and Development of Allied Health Workforce (DAHWF)
OP-38	Alternative Medical Education (AME)

Source: MoHFW[20]

[19] In April 2025, ERD officially announced that it would discontinue the 5th HPNSP and instead adopt a project-based approach using DPP and TAPP.

[20] The 5th HPNSP PIP Volume 1, p.22

2.5 Political and Economic Relations with Japan

2.5.1 Political and Economic Relations

Japan and Bangladesh have enjoyed a long history of friendly relations since the establishment of diplomatic ties on 10 February 1972. Japan has been a major donor to Bangladesh, playing an important role in infrastructure development and economic development. In April 2023, the two countries elevated their bilateral relationship from 'Comprehensive Partnership' to 'Strategic Partnership'.[21]

However, in August 2024, large-scale student-led protests erupted in Bangladesh, causing Prime Minister Sheikh Hasina to resign. An interim government was formed with Nobel Peace Prize winner Muhammad Yunus as its Chief Advisor. In response to this political turmoil, the Japanese government has expressed its support for democracy and stability in Bangladesh and its intention to maintain its close relations.[22]

Economically, Japan's presence in the Bangladeshi market has been increasing, with 338 Japanese companies as of 2023.[23] Negotiations for the Japan-Bangladesh Economic Partnership Agreement (EPA) began in March 2024, and further expansion of trade and investment between the two countries is expected.

2.5.2 Record of Assistance in the Health Sector

An outline of JICA's assistance in health sector to Bangladesh is shown in Table 2-11.

[21] Ministry of Foreign Affairs of Japan https://www.mofa.go.jp/mofaj/files/000274426.pdf (accessed on 17 February 2025)
[22] Same as above
[23] Same as above

Table 2-11: List of ODA Loans, Technical Assistance, and ODA Grants

Type	Title	Period/Agreement
ODA Loan	COVID-19 Crisis Reponse Emergency Support Loan Phase 2	signed November 2021
	COVID-19 Crisis Reponse Emergency Support Loan	signed August 2020
	Health Service Strengthening Project	signed June 2018
	Maternal, Neonatal amd Child Health (MNCH) and Health System Improvement Project	signed December 2015
	Maternal, Neonatal and Child Health Improvement Project (Phase 1)	signed January 2012
Tech-nical Assis-tance	Project for Strengthening Measures against Non-Communicable Diseases	August 2023～now
	Project for Capacity Building of Nursing Services Phase 2	March 2022～now
	Project for strengthening the inspection, regulation and coordination functions of the Bangladesh Food Safety Agency	May 2021～April 2026
	The Project for Strengthening Heal Systems ythrough Organizing Communities	July 2017～July 2022
	Project for Capacity Building of Nursing Services	January 2016～January 2021
	Safe Motherhood Promotion Project Phase 2	June 2011～May 2016
	Research Project for Establishment of Diagnostic System for Kala-Azar and for vector control, Neglected Tropical Diseases	June 2011～May 2016
	Safe Motherhood Promotion Project	July 2006～June 2011
	Retroductive Health Human Resources Development Project	September 1999～ August 2004
	Pilot project for controlling rheumatic fever and rheumatic heart disease	November 1988～ October 1992
ODA Grant	Project for Strengthening Emergency Obstetric Medical Services (Phase 2)	E/N June 2003年
	Project for Strengthening Emergency Obstetric Medical Services (Phase 1)	E/N April 2002年
	Project for Improving Maternal and Child Health Training Center	E/N May 1998年

Source: JICA[24]

[24] https://www.jica.go.jp/overseas/bangladesh/index.html

Table 2-12: Public Private Partnership

Year	Scheme	Title	Company name	Consulting firm
2024	Needs Survey	Survey to confirm needs for rehabilitation projects (service and education provision) and preventive medicine projects in Bangladesh	Generous Inc.	
2021	Project survey (SME support type)	Project feasibility study on the improvement of dental care through Japanese-style dental laboratory techniques	Medina Co., Ltd.	IC Net Inc.
2016	Survey on problem-solving business (SDGs business) in developing countries	Survey on health check-up business (SDGs business) to improve access to health services	Konica Minolta, Inc.、miup Joint Venture Co., Ltd.	PwC Sistaomabo;oty LLC、General incorporated association Gemstone
2014	Preparatory survey for cooperation (promotion of BOP business collaboration)	Euglena cookie business preparatory survey (promotion of BOP business collaboration)	Euglena Co., Ltd	None
2012	Project survey (SME support type)	Feasibility Study on a maternal and child health project using Euglena	Joint Venture Euglena Co. Ltd、Mitsubishi Research Institute, Inc.	None
2012	Project survey for cooperation (promotion of BOP business collaboration)	Preparatory survey for a project to improve the lives of rural women using skin care products (promoting BOP business collaboration)	Joint Venture Shiseido Co., Ltd.、Kaihatsu Management Consulting, Inc.	Shiseido Research Center、JITA Bangladesh
2011	Project survey for cooperation (promotion of BOP business collaboration)	Preparatory survey for a project to improve nutrition for pregnant women and infants using locally developed foods (promotion of BOP business collaboration)	Joint Venture Nissin Foods Holdings Co., Ltd、Alliance Forum Foundation	None

Source: JICA[25]

[25] https://www.jica.go.jp/overseas/bangladesh/index.html

Table 2-13: Technical Assistance at the Grassroots Level

Approved Fiscal Year	Project Title	Implementing Agency
2015	Health promotion project for local residents by oral hygiene specialists	Nonprofit Organization Jorona
2011	Bangladesh Breastfeeding Promotion Project	Oketani Breastfeeding Promotion Association
2007	Model project for preventive dentistry to promote health in Bangladesh	Hokkaido University Faculty of Dental Medicine
2006	Disseminating intermediate technology aimed at improving sanitation and recycling human waste in rural areas in Bangladesh	NPO Japan Water Circulation Culture Research Association
2017 (Second batch)	Oketani Breastfeeding Technique Strengthening Project	Oketani Breastfeeding Promotion Association
FY2008 (First batch)	Project for improving the health of local residents through comprehensive hygiene education	Public Interest Incorporated Assoication Japan Foster Plan Association

Source: JICA[26]

[26] https://www.jica.go.jp/overseas/bangladesh/index.html

In 1973, a total of 1,284 people were dispatched under the Japan Overseas Cooperation Volunteers (JOCV) program. Among them, 183 people, or 14%, have been dispatched to the health sector. Their activities include raising awareness on the importance of vaccinations for polio eradication among key community stakeholders, such as local residents, village doctors, traditional medicine men, and traditional midwives.

The Ministry of Foreign Affairs of Japan (MoFA) has cooperated in the following areas outlined in Table 2-14.

Table 2-14: Grant Assistance for Grass-Roots Human Security Projects of MoFA

G/C Conclusion	Title	Beneficiaries	Amount
Nov.15, 2023	Project for Providing Ophthalmic Medical Equipment in Gaibandha District	SKS Foundation	¥11,237,699
Mar.24, 2024	Project for Providing Medical Equipment for the Treatment of Pediatric Hematological Diseases in Dhaka District	Bangladesh Children's Hospital and Research Institute	¥11,429,088
Feb. 26, 2023	Project for Improvement of Medical Radiation Equipment in Dhaka District Hospital, Dhaka District	Dhaka Community Hospital Trust	¥9,944,532
Mar. 8, 2023	Project for Provision of Pathological and Dental Medical Equipment in Bhasan Char Island, Noakhali District	Friendship	¥5,000,292
Mar. 14, 2022	Cox's Bazar District Ambulance Project	Friendship	¥7,931,196
	Project for Construction of Health and Pathology Facility in Cox's Bazar District	Bangladeshi-German Sampreeti	¥8,122,788
	Faridpur District Eye Medical Equipment Introduction Project	Highlight Eye Hospital	¥8,234,244
Mar.15, 2022	Sylhet District Clinical Testing Equipment Introduction Project	Research, Training, Management International	¥13,763,736
	Project for Construction of Medical Facility in Patiya Upazila, Chittagong District	Knows One	¥10,275,984
Mar. 30, 2020	Project for Construction of Rehabilitation Center for the Disabled in Moulobibazar District	Centre for the Rehabilitation of the Paralysed	¥12,978,130
	Project for Procurement of Equipment for Strengthening Response Capacity of Cardiac Disease and Trauma in Bogra District	Thengamara Mohila Sabuj Sangha	¥9,017,800
Mar. 7, 2019	Project for Providing Medical Equipment to Support Refugees from Myanmar and Local Residents in Cox's Bazar District	Community Initiative Society	¥4,784,080
	Project for Construction of Primary Health Care Clinics in Camps for Refugees from Myanmar in Cox's Bazar District	Bangladesh Red Crescent Society	¥8,253,728

Source: MoFA, Japan[27]

[27] https://www.mofa.go.jp/mofaj/gaiko/oda/region/s_asia/bangladesh/exchange.html

Chapter 3 Current Situation of Bangladesh's Health Sector

This chapter provides an overview of Bangladesh's health sector. Any important indicators that cannot be obtained before the preparation of this report will be included in the draft final report (DFR).

3.1 General Overview of Health Sector

The health sector in Bangladesh has achieved significant reductions in infant and maternal mortality in recent years due to successful immunization programs and family planning efforts. To address ongoing challenges in the health sector, the Government of Bangladesh has been working to improve maternal and child health services and strengthening the health system through comprehensive programs such as the Health, Population, and Nutrition Sector Development Program (HPNSP). Specifically, the project has worked to strengthen the health system by improving primary medical facilities, student hostel and staff dormitories at nursing colleges, educational and living facilities, procuring maternal and child health-related equipment, and providing training for community support groups and family welfare volunteers.

Despite these efforts, the health sector still faces persistent challenges, such as shortages of health professionals and disparities in services availability in urban and rural areas. New challenges have also emerged, such as the recent increase in NCDs. In particular, the urgent need to build a system for the early detection and treatment of NCDs is being addressed with support from JICA.

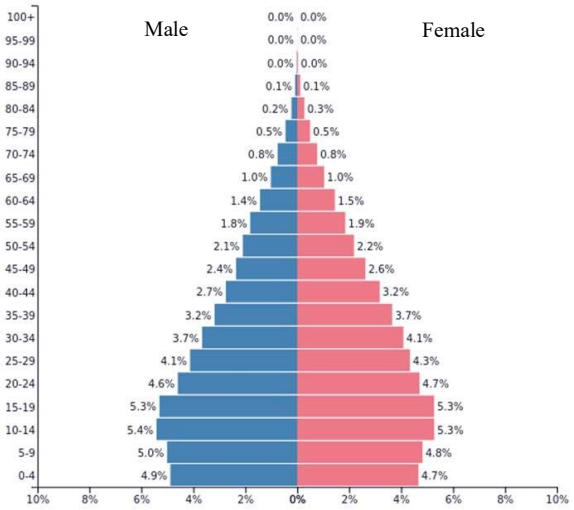
The government aims to achieve UHC by 2032, with a focus on increasing public funding, strengthening governance, and integrating digital health solutions. This includes considering targeted taxation to improve service provision and strengthening the regulatory framework. Overall, the health sector in Bangladesh is showing signs of improvement through cooperation between the government, international organizations, and NGOs, but further institutional reform, human resource development, and infrastructure development are needed for its sustainable development.

3.1.1 General Situation of the Demographic Trends and Health Indicators

(1) Demographic Trend

As of 2022, Bangladesh's population was approximately 171.19 million, making it the world's eighth most populous country. By 2050, it is predicted that the population will reach 200 million. In 2019, the ratio of urban to rural population is approximately 37% and 63%, respectively, with the rural population decreasing year by year. With a population density of approximately 1,239 people per square kilometer (2018), Bangladesh has the highest population density in the world, excluding island countries and city-states. Bengali people make up 98% of the population. The 15-19 age group represents the largest population segment (around 10%), further indicating a youthful population. Due to improvements in public health and the enhancement of the medical environment, the average life expectancy at birth has been rapidly increasing in recent years—while it was 64.45 years in 2000, it is expected to reach 72.59 years in 2019.

In addition, the birth rate is also declining, falling from 2.89 in 2000 to 1.80 in 2020[28]. These trends have led to an aging rate, with the percentage of the population aged 60 and over expecting to rise from 4.9% in 2000 to 8.5% in 2025 (forecast) and 22% in 2050 (forecast)[29].



Source: Generated from UN Population Prospects by the Survey Team

Figure 3-1: Population Pyramid of Bangladesh (2020)

3.1.2 Change in Health Indicators

The main health indicators are shown in

[28] World Bank, Open Data https://data.worldbank.org/indicator/SP.DYN.CBRT.IN?end=2024&locations=BD&start=2024&view=bar (accessed on 3 March 2025)

[29] Extracted from UN Population Prospects 2024 (accessed on 3 March 2025) https://population.un.org/wpp/downloads?folder=Standard%20Projections&group=Population

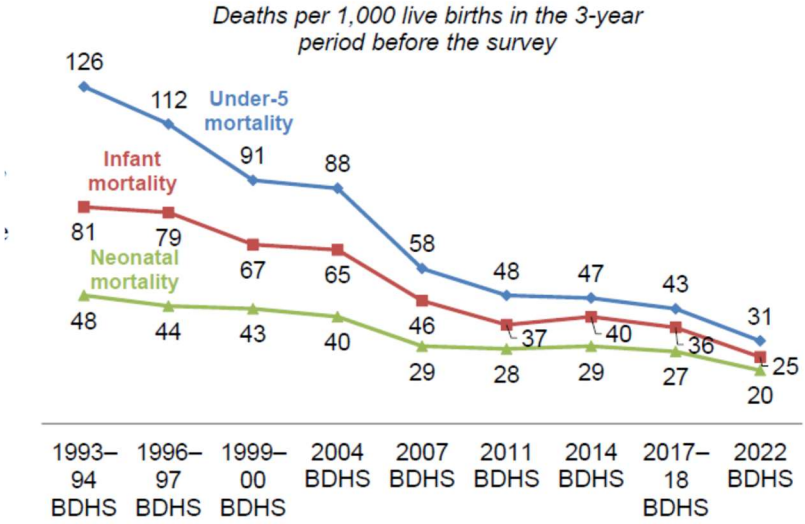
Table 3-1. Based on the increase in life expectancy and the decrease in infant mortality and maternal mortality, the healthcare environment in Bangladesh has improved, and the health situation of the Bangladeshi people has greatly improved as a result. However, challenges remain: out-of-pocket expenditure rate exceeds 70%, and only 52% of the population (2016) [30] [31]has access to essential health services. These remain as challenges to further improving health indicators.

[30] HP of Government of Bangladesh: http://www.sdg.gov.bd/ (accessed on 3 March 2025)
[31] Bangladesh's UHC service coverage index is 52 as of 2021: https://data.who.int/countries/050 (accessed on 3 March 2025)

Table 3-1: Major Health Indicators

	Unit	Number /Rate	Year
Maternal Mortality	per 1000 live births	123	2012
Neonatal mortality	per 100,000 population	17.36	2022
Under 5 mortality	per 100,000 population	28.78	2022
New HIV infections	per 1,000 uninfected population	0.01	2023
Tuberculosis incidence	per 100,000 population	221	2023
Malaria incidence	per 1,000 population	1.22	2022
Hepatitis B	children under 5 years	0.51%	2020
Non-communicable diseases	between age 30 and 70	19%	2019
Road traffic deaths	per 100,000 population	18.6	2021
Suicide deaths	per 100,000 population	3.68	2019
Homicide	per 100,000 population	2.84	2019

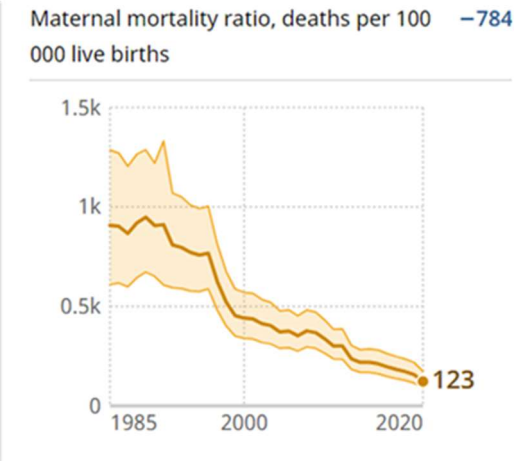
Source: WHO[32]



Source: Bangladesh Demographic and Health Survey 2022[33]

Figure 3-2: Change in Infant Mortality Rate

[32] WHO, Country data https://data.who.int/countries/050 (accessed on 19 February 2025)
[33] Bangladesh Demographic and Health Survey 2022, p.116



Source: WHO [34]

Figure 3-3: Trends in Maternal Mortality

Table 3-2: Leading Causes of Death (Per 100,000 People, 2021)

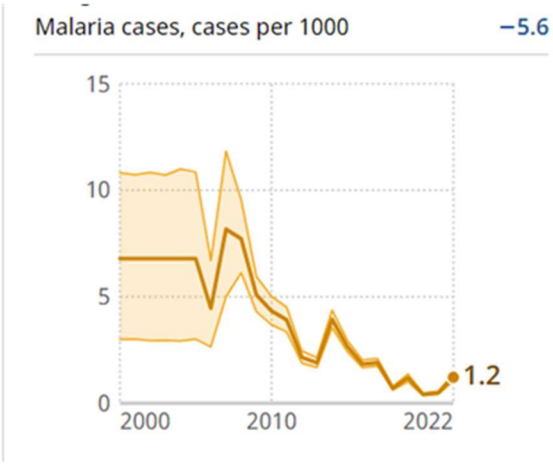
Total		Female		Male	
Stroke	2023	Stroke	88.1	Stroke	72.3
Ischaemic heart disease	58.5	Ischaemic heart disease	50.2	Ischaemic heart disease	67.6
COVID-19	46.3	COVID-19	32.7	COVID-19	60.8
Chronic Obstructive pulmonary disease	30.6	Chronic Obstructive pulmonary disease	27.1	Road injury	34.1
Tuberoculosis	25.6	Diabetes mellitus	24.4	Chronic Obstructive pulmonary disease	34.1
Diabetes mellitus	18.8	Tuberoculosis	24.3	Tuberculosis	27.1
Road injury	18.4	Diarrhoeal diseases	23.5	Lower Respiratory Infections	21.5
Diarrhoeal diseases	18.3	Hypertensive heart disease	16	Preterm birth complications	17.4
Lower Respiratory Infections	16.1	Preterm birth complications	14.1	Oesophagus cancer	16.5
Preterm birth complications	15.7	Cirrhosis of the liver	12.1	Cirrhosis of the liver	16.2

Source: Survey Team based on WHO materials[35]

When the causes of death are examined by broad category, such as NCDs and infectious diseases, NCDs account for 63.1%; deaths due to infectious diseases, maternal, perinatal, and nutritional conditions account for 26.9%; injuries account for 6.9%; and deaths related to the COVID-19 pandemic account for 3.1%[36]. The leading NCDs include cardiovascular diseases, cancer, diabetes, and pseudomembranous enteritis in people aged 30 to 70, accounting for 19% of deaths between 2012 and 2019[37].

Among the breakdown of infectious diseases, HIV cases remained low with 0.01 cases per 100,000 people, while since 2022, tuberculosis remains significant with 221 cases per 100,000 people. Malaria incidence rose to 0.49 cases per 100,000 people in 2021, indicating a worsening trend since 2020[38]. The hepatitis (HBsAg) infection rate for children under five years old was 0.51% in 2020, which is higher than the average of 0.38% for the South Asian region.[39]

[34] WHO, Country data https://data.who.int/indicators/i/C071DCB/AC597B1?m49=050 (accessed on 19 February 2025)
[35] WHO, Country data https://data.who.int/countries/050 (accessed on 19 February 2025)
[36] Same as above
[37] WHO, indicators https://data.who.int/indicators/i/C540135/1F96863?m49=050 (accessed on 19 February 2025)
[38] Same as above 33
[39] WHO, indicators https://data.who.int/indicators/i/62D8ABE/F513188?m49=050 (accessed on 19 February 2025)



Source: WHO[40]

Figure 3-4: Trends in Malaria Incidence Rate (Per 1,000 People)

Lymphatic filariasis, the neglected tropical disease that was spreading in Bangladesh, was declared eradicated by WHO in 2023[41], with the support of USAID over many years. In addition, polio was also declared eradicated in 2014 by the Global Polio Eradication Initiative[42].

The figure below also shows the change in noncommunicable diseases over time. In addition to a decrease in the proportion of infectious diseases, the rate of increase in noncommunicable diseases is significant.

Table 3-3: Major Causes of Death and Changes (Comparison of 2009, 2011, and 2021)

Diseases	Created from the top number of diseases in 2021			Percent change
	2009	2011	2021	from 2011 to 2021
Stroke	1	1	1	23.6%
Heart disease	2	3	2	24.6%
Covid-19	-	-	3	-
COPD	5	4	4	8.0%
Neonatal disability	3	2	5	-39.5%
Diabetes	9	9	6	7.9%
Lower respiratory tract infections	4	5	7	-14.1%
Cirrhosis of the liver	8	8	8	0.7%
Diarrheal disease	7	7	9	-1.5%
TB	6	6	10	-6.6%
Malignant tumor	-	10	-	-
Death by drowning	10	-	-	-

Source: Generated by the Survey Team from website data of the Institute for Health Matrix and Evaluation

[40] Same as above 33

[41] Reliefweb, Three USAID-Supported Countries Successfully Eliminate Disabling Neglected Tropical Diseases, 2023, https://reliefweb.int/report/bangladesh/three-usaid-supported-countries-successfully-eliminate-disabling-neglected-tropical-diseases (accessed on 19 February 2025)

[42] STRIPE, Country data https://stripe.jhu.edu/partners/bangladesh/ (accessed on 19 February 2025)

3.1.3 General Health Financing

Despite Bangladesh's economic growth, public health expenditure remains low, accounting for only 2.36% of GDP in 2021. Out-of-pocket expenditure is very high, accounting for about 72.99% of total health expenditure, placing a financial burden on households.

(1) Public health expenditure

In terms of public and private health care expenditures, the country accounted for only 2.36% of GDP as of 2021. Public health expenditures alone account for about 0.74% of GDP (2021), indicating that government spending on the health sector is extremely limited.

The following table compares this situation with other South Asian countries.

Table 3-4: Public and Total Health Expenditures Relative to GDP

Country	Public Health Expenditure (% of GDP)	Total Health Expenditure (% of GDP)	Year
Bangladesh	0.74%	2.36%	2021
India	1.9%	3.8%	2023
Pakistan	2.91%	2.91%	2021
Nepal	1.8%	5.42%	2021
Sri Lanka	1.5%	3.8%	2021

Source: Generated from various resources by the Survey Team
(Health Bulletin 2021, MoHFW (Bangladesh), Share of Government Health Expenditure, Public Information Bureau (India), National Health Account, Government of Pakistan (Pakistan), Government Health Expenditure 2021 (Nepal), Budget Brief - Health Sector, UNICEF (Sri Lanka))

(2) Out of pocket expenditure

Although most basic health services in Bangladesh are provided free of charge, due to the shortage of medicines and inadequate maintenance of medical equipment in public health facilities and various tests and medicines being performed in private facilities and pharmacies, out-of-pocket expenditure in health care is 72.68% of the total health expenditure (WHO, 2019; 64%, 2010)[43]. This high co-payment rate is a significant financial burden and has been pointed out as a factor that discourages low-income households from using health services until their situation becomes serious. On the other hand, in recent years, higher-income households have increasingly relied on high-quality private health care facilities.

In 2012, the Government of Bangladesh formulated the Health Financing Strategy (2012-2032) to reduce out-of-pocket expenditure rate for health service to 32% by 2032 and achieve UHC. However, concrete progress is limited

[43] WHO, Global Health Expenditure database, World Health Organization Global Health Expenditure database (apps.who.int/nha/database) (accessed on 19 February 2025)

at present. In the future, the Government of Bangladesh will need to improve access to health service and reduce the financial burden on the population through increased public health expenditure and the development of health insurance schemes (e.g., expansion of Shasthyo Surokhsha Karmasuchi or SSK).

(3) Challenges in Health Financing

Although the Government of Bangladesh's ongoing efforts to increase budgetary allocations to the health sector, the following challenges still exist:

- **Low tax revenues**: Tax revenues comprise only 9% of GDP (2022) [44], making it difficult to adequately fund the health sector. This is partly due to the high number of informal sector workers, which makes it difficult to ascertain income information.
- **Aid dependence**: The health sector is partly dependent on international aid for funding, highlighting the need to establish a sustainable financial base.
- **Efficient use of funds**: There is a need to strengthen management capacity and institutional efficiency to ensure the effective use of limited funds.

To address these challenges, the government is pursuing various reforms, including the introduction of health insurance schemes (e.g., SSK) and the promotion of public-private partnerships [45]. However, successful implementation of these measures requires a comprehensive strategy to ensure both financial sustainability and equitable access to health services across all population groups.

[44] International Monetary Fund, World Economic Outlook Database April 2022 https://www.imf.org/en/Publications/WEO/weo-database/2022/April (accessed on 3 March 2025)

[45] Specific examples include: strengthening the Upazila Health Complex, the health volunteer system (requesting volunteers and health workers to conduct home visits, vaccinations, etc.), partnerships with private health institutions (to supplement demand that cannot be met by public institutions alone), E-Health and other use of digital technology, and various cooperation projects with international organizations and NGOs.

Chapter 4 Analysis of Health Sector Programs

4.1 Health Sector Program Overview (Includes Summary of Donor Support)

According to the Program Implementation Plan (PIP) of the 5th Health, Population and Nutrition Sector Programme (HPNSP) (May 2024 version), the sources of program financing are shown in Table 4-1. The government's budget accounts for 76.05% of the total, while 23.95% is expected to be financed by donors. Donor funds are also categorized as reimbursable project loan and grants, and direct project grants.

Table 4-1: Financing Sources of the 5th HPNSP

Financing Source	Amount (BDT 10 million)	Percentage of Budget (%)	Funder
Government Budget	80,685.30	76.05	
Reimbursable Project Loan /Grant	17,389.80	16.39	World Bank, GFF*, ADB, JICA, GFATM, Sweden, Canada, UNICEF, GAVI, UNFPA, WHO
Direct Project Grant	8,024.90	7.56	
Sub-total Loans and Grants	25,414.70	23.95	
Total	1,06,100	100	

Source: Ministry of Health and Family Welfare (MoHFW)[46]

*Notes: GFF: Global Financing Facility[47]

The HPNSP falls under the development budget of Bangladesh's budget system; the recurrent budget required to operate the HPNSP is included as part of the development budget. The development budget is estimated, approved, and audited separately from the non-development budget, thus completing its budgetary cycle by itself. For this reason, all budgets related to the HPNSP described below are development budgets.

The budget size and financial resources of the health sector programs implemented to date are shown in Table 4-2.

Table 4-2：Trends of Budget Amount and Financing Sources for the Health Sector Program

Unit：BDT in Crore

Financing Source	First*. (% of total value)	Second*. (% of total value)	Third*. (% of total value)	Fourth *. (% of total value)
Government of Bangladesh	1,691.73 (27.66)	6,299.12 (38.02)	8,237.34 (42.09)	30,466.46 (61.70)
Reimbursable Project Loan/Grant	4,425.40** (72.34)	6,273.30 (37.87)	8,654.92 (44.22)	12,329.22 (24.97)
Direct Project Grant		3,944.04 (24.11)	2,678.80 (13.69)	6,579.05 (13.33)
Total Amount	6,117.13	16,566.46	19,571.06	49,374.73

Notes: *All budget amounts are after budget revision.
**The breakdown of reimbursable project loans and grants, as well as direct project grant, is not shown in the Primary Health Sector Program.

Source: MoHFW[48]

[46] MoHFW, The 5th HPNSP PIP, p.12
[47] Funds aimed at eliminating poverty and inequality through improving the health and rights of women, children, and adolescents. A fund managed by the World Bank with funding from a wide range of donors, including developing country governments, the private sector, and donors. It provides grant funding.
[48] MoHFW, The 5th HPNSP PIP, p.551

From this, it can be read that (1) the budget size of the health sector program increased eightfold between the first and fourth rounds, and (2) the share of the government budget in the total amount increased more than twofold, rising from less than 28% to 62%, while the proportion of donor support has decreased. Although budget allocations to the health sector have increased in recent years, according to a World Bank report, the Seventh Five-year Plan sets the health sector budget at 1.2% of gross domestic product (GDP) by the end of 2020, which is far below of the 5% benchmark set by the World Health Organization (WHO). In addition, throughout the Sixth Five-year Plan period, the budget allocation and expenditure for the MoHFW were lower than planned, with low budget execution capacity remaining an issue.

Since the first round, the Health Sector Program has been led by the World Bank, which established a pooled fund and has provided support to government budgets that are not tied to specific projects. The Health Sector Support Project, which supports the 4th Health Sector Program, is financed by concessional funds from the International Development Association (IDA) and a grant from the Global Financing Facility. The World Bank Board of Directors approved an IDA credit of USD 379 million for the 5th HPNSP in December 2024, before the program was approved by the Executive Committee of the National Economic Council (ECNEC).

In addition to financial support for the health sector program itself, a joint T/A fund has been established to implement each OP, coordinated to avoid duplication of work. This mechanism pools donor funds for T/A after the TOR for each sector are defined in advance, using the pooled funds as the source to procure T/A for each sector. The Joint Technical Assistance (T/A) Fund was introduced in the 4th HPNSP, and since the results were confirmed, it is planned to be introduced in the 5th HPNSP.

Annual expenditure for the Health Sector Program is disbursed based on the budget allocation to the Ministry of Health and Family Welfare (MoHFW) for each fiscal year. Therefore, there may be discrepancies between the budget estimate and the actual budget allocation for the Health Sector Program.

Table 4-3: Budget Execution Ratio for the 4th HPNSP

Division (# of OP)	Budget and its execution (10million Taka)					
	Budget allocation (A)	Budget release (B)	Ratio A/B(%)	Expenditure (c)	Ratio C/B(%)	Ratio C/A(%)
HSD(21)	44,437.60	43,181.37	97.17	38,149.78	88.35	85.85
MEFWD (10)	9,414.87	9,056.27	96.19	7,180.54	79.29	76.27
Total	53,852.47	52,237.64	97.00	45,330.32	86.78	84.17

Source: MoHFW[49]

Table 4-3 shows that the released budget is 97% of the allocated budget amount, while the budget execution ratio to the released budget is 88.35% for the Health Service Division (HSD) and 79.29% for the Medical Education and Family Welfare Division (MEFWD). The overall execution rate is 86.78%, which is low compared with the

[49] MoHFW, Endline Evaluation Report of the 4th HPNSP, p.25

ratio of released to allocated budget. The Endline Evaluation Report of the 4th HPNSP[50] evaluates that an execution rate of more than 80% for a budget of this size is a satisfactory result, considering the influx of over one million Myanmar refugees since 2017 and the spread of coronavirus disease 2019 (COVID-19) infection, which has claimed many lives, including those of frontline medical workers[51]. On the other hand, as discussed in Section 4.4 Review of Reports on Health Sector Programs, the report also highlights low budget execution and the need for improvement.

4.2 Accounting System, Administrative Reporting System, Project Management System, and Donor Dialogue System for Health Sector Programs

Since the HPNSP is implemented using the Sector-Wide Approaches (SWAp) method, it follows the budget system of the Bangladesh government. The Integrated Budget and Accounting System (iBAS++) is used for budget execution and centrally manages all financial transactions related to government revenue and expenditure[52]. In the MoHFW, iBAS++ has been introduced up to the district hospital (DH) level, allowing expenditures to be entered through economic codes. On the other hand, non-development budgets are distributed only up to the Upazila Health Complex (UzHC) level, and iBAS++ is unable to accurately capture expenditures of health facilities below the union level.

The HPNSP is categorized as part of the development budget, and the Line Director (LD) of each program is responsible for budget execution. In other words, the LD is responsible for procurement to implement the operation plan (OP) and manages the budget using iBAS++. After budget execution, the LD submits the statement of expenditures (SOE) to the Financial Management and Audit Unit (FMAU). The FMAU, established in the 3rd HPNSDP, performs internal audits of the submitted SOEs. In the 4th HPNSP, OPs to strengthen financial management, including the functions of the FMAUs, were formulated. The financial management OP includes the training to strengthen the procurement and auditing capabilities of MoHFW staff, including LDs. By implementing this OP, the aim is to strengthen the budget and procurement management capacities of both LDs and FMAUs[53]. The checks performed by the FMAUs are internal audits, and SOEs that have undergone internal audit are submitted to the Chief Accountant Office. The documents submitted to the Chief Accountant Office are then audited by the Office of the Controller and Auditor General (OCAG), the external auditing agency of the Bangladesh government. As the HPNSP is funded through donor-funded reimbursable project loans and grants, it is also audited by the Foreign Aided Projects Audit Directorate (FAPAD), which is responsible for auditing foreign aid.

The development budget for the first and second quarters can be used soon after its approval. On the other hand, budget rules require the submission of SOEs for the first and second quarters in order to execute the budget for

[50] MoHFW, Endline Evaluation Report of the 4th Health, Population and Nutrition Sector Program
[51] MoHFW, Endline Evaluation Report of the 4th HPNSP, p.25
[52] World Bank "Bangladesh Public Expenditure Tracking Survey" p.49-50 MoHFW, Endline Evaluation Report of the 4th HPNSP, p.25
[53] In the 4th HPNSP, FMAUs were established for the operations of both HSD and MEFWD, but in the 5th HPNSP, a new FMAU will be established for MEFWD as well, and capacity building will be carried out through operations to strengthen financial management.

the third and fourth quarters. Therefore, the LD needs to submit SOEs to the FMAU to proceed with budget execution for the third and fourth quarters.

The LD is primarily responsible for the progress management of HPSNP. The LD submits progress reports to the Planning Units, which supervises the overall progress of the HPNSP based on these reports. The Planning Units only see the contents of the report submitted by the LD, while the supporting documents on which the reports are based are detained at the LDs' offices. In the 4th HPNSP, an OP entitled SWAp Management and Monitoring was formulated under HSD. This OP is designed to oversee the progress of the entire HPNSP. The HSD Planning Unit is responsible for overall management and coordination with donors. In addition, OPs have been formulated for the planning units of HSD and MEFWD to plan, monitor, and strengthen the implementation capacity of the work carried out at the OP level. Through this organizational arrangement, in which the OPs are tasked with managing, planning, monitoring, and financially administering the SWAp, the HPNSP is effectively implemented, monitored, and continuously improved. It is important to note that the HPNSP itself is a system aimed at strengthening capacity during implementation, although it contains inherent challenges that may prevent the full achievement of its goal from the beginning.

The Program Management and Monitoring Unit (PMMU) was established to support the Planning Unit after the 3rd HPNSDP. It supports the progress and management of the HPNSP. The PMMU comprises a T/A support team consisting of MoHFW staff, government advisors, and experts. The head of the HSD Planning Unit also serves as the head of the PMMU. The PMMU provides annual progress reports and interim reports, and it also supports the compilation of performance indicators, including Disbursement Linked Indicator (DLI)[54]. Established with donor support, the PMMU functions only during the implementation period of the HPNSP. As the implementation framework of the 4th HPNSP is to be followed, the PMMU is expected to be established again under the 5th HPNSP.

The progress of the HPNSP will be monitored based on the achievement of performance indicators set by the program, as well as the DLIs of the World Bank loan supporting the 4th HPNSP. The monitoring method is described in Section 9.3, Proposal for Candidate Project and Aid Approach for Introducing Results-based Loan, OP Input-based, and DPP. In addition, the donor dialogue system is explained in Sections 4.5, Analysis of Donor Coordination in Health Sector Programs, and 4.5.1, Donor Coordination Mechanism and Challenges.

4.3 Issues Related to the Administrative Structure Regarding the Health Sector Program

The 4th HPNSP Endline Evaluation Report lists the following issues regarding the SWAp as previously identified in the Mid-term Evaluation Report[55]:

- Irregularity in the holding of high-level coordination meetings
- Numerous independent projects not included in the SWAp framework
- The bifurcation of MoHFW into HSD and MEFWD

[54] After the 3rd HPNSDP, the PMMU was established to support the implementation and supervision of the HPNSP, and supported the work of the Planning Unit. The PMMU employed consultants using donor funds to support the implementation of the HPNSP. The consultants employed by the PMMU were employed using the budget allocated by the SWAp Management and Monitoring OP, so their work ended with the end of the 4th HPNSP.

[55] MoHFW, the 4th HPNSP Endline Evaluation Report pp. 15-16

Regarding high-level coordination meetings, the Endline Evaluation Report stated that the number of meetings had increased since the Mid-term Evaluation.

On the second point—independent projects not included in the SWAp framework—the report stated that both HSD and MEFWD had implemented many independent projects since the Mid-term Evaluation, and that this would no longer be considered an issue.

The third of these —the bifurcation of the MoHFW—not only results in duplication of OP content, but also creates lack of linkage between healthcare workers' education and their placement in workplaces. It further separates medical facilities at the end of the line in the provision of healthcare services, and adopts individual information systems in both departments without mutual compatibility. This fragmentation presents a major obstacle to administrative efficiency. The following points were highlighted.

- The Mid-term Evaluation Report noted that "high centralization and polarization have hindered optimal resource utilization. This is most evident in primary healthcare and family planning services, where a mismatch in essential health inputs (infrastructure, staff, medicines, and equipment) at the facility level leads to inefficiencies and waste of resources.[56]"
- Regarding the issue of bifurcation, the Endline Evaluation Report noted that while the Mid-term Evaluation Report recommended that the 5th HPNSP establishes OPs for financial management, human resource development, and infrastructure facilities for each department, this had not been fully considered. The report provided the following examples.
  - Upazila Health Family Planning Officers are appointed by the Directorate General of Health Services (DGHS) as field family planning managers; however, this appointment is misleading as the DGHS does not provide family planning services. It would be more appropriate for the Directorate General of Family Planning (DGFP) to secure a position within the district hospital.
  - However, the district hospital under the jurisdiction of HSD (Upazila Health Complex, hereafter referred to as UzHC) lacks the physical space to provide MEFWD's family planning services. Therefore, MEFWD will need to build its own facility within the same premises.
  - A Medical College is under the jurisdiction of the Directorate General of Medical Education (DGME), while maternal and child health services fall under the jurisdiction of the DGHS, requiring coordination between the departments for medical students to practice at the hospital affiliated with the Medical College[57].

These issues could be resolved if both departments devised their own mechanisms to provide optimal medical services under the MoHFW; however, the momentum for dialogue between them remains low, and this problem has not been resolved in the 5th HPNSP.

[56] MoHFW, 4th HPNSP Mid-Term Review 2020 Main Report, p.68, Endline Evaluation Report of 4th HPNSP, p.17
[57] MoHFW, Endline Evaluation Report of the 4th HPNSP, p. 17

In the HPNSP, an LD is appointed for each OP, and the LD and their staff are responsible for implementing the OP. For example, when an OP for NCDs control is implemented, the LD office in charge procures medicines prescribed to patients based on requests from local hospitals and distributes them accordingly. Similarly, the LD office is generally responsible for all arrangements related to training and other activities. Although a small number of items may be procured by local medical institutions, the LD office usually handles procurement, making it a centralized system. Accounting and auditing related to budget execution are also managed by the LD and the LD office. LDs are appointed among MoHFW staff, but the staff of the LD office may be employed on an OP basis. This means that the personnel costs of these staff are paid from the OP budget, which is a development budget; therefore, their work ends, and they are dismissed when the HPNSP ends. Unless these staff are included in the non-development budget as MoHFW employees, even if they receive training on budget and procurement management, the organizational benefits will not be sustained. This is also a fundamental issue that explains why no dramatic improvements have been seen despite multiple implementations of health sector programs. The same applies to consultants employed under the PMMU.

In addition, primary healthcare services in urban areas fall under the jurisdiction of City Corporations and local cities, which operate under the Ministry of Local Government, Rural Development and Co-operatives (MOLGRD&C) umbrella and are not included in MoHFW health sector programs. The lack of coordination between MoHFW and MOLGRD&C results in poor referral linkages between primary healthcare facilities operated by City Corporations and the secondary and tertiary healthcare facilities established by MoHFW in urban areas. In addition, medical facilities under MOLGRD&C face challenges in securing adequate human resources, equipment, and supplies.[58] The exclusion of primary-level healthcare in densely populated urban areas from MoHFW's policy scope represents another fundamental health policy challenge.

4.4 Review of Reports on the Health Sector Program

Annual progress reports, interim reports, and final reports were prepared for the 4th HPNSP.

The Endline Evaluation Report states that program implementation reports were prepared annually during the 4th HPNSP period, from fiscal year 2017/18 through fiscal year 2022/23. However, the only annual reports available were for the following fiscal years: 2017 (January to June), 2017/18, 2018/19, 2019/20, and 2021/2022[59].

All of these reports follow the same structure and contain the following items:

- HPNSP budget allocation, annual budget release, annual expenditure, ratio of executed amount to initial budget allocation and annual budget release;
- Budget execution rate per OP;
- Progress percentage against the result indicator for each OP;
- Detailed progress description for each OP;

[58] Health Sector Information Collection and Verification Survey Final Report p.56

[59] The reports for the annual report, mid-term evaluation, and final evaluation are all under the jurisdiction of the PMMU, but the PMMU was disbanded with the completion of the 4th HPNSP. Given the mixed sources of the reports obtained by the Survey Team, it is assumed that the MoHFW does not have sufficient functions to archive the official documents produced.

- Issues related to implementation and recommendations.

In order to assess the progress of each OP, program implementation was examined based on the percentage of budget execution and the percentage of achievement of the OP's evaluation indicators. Table 4-3 shows the initial budgeted allocation, annual budgeted release, executed amount, and execution rate against both the allocated and released amounts for the 4th HPNSP over its entire implementation period. Similarly, Table 4-4 lists those OPs with a utilization rate of less than 80% against both the initial budgeted amount and annual budgeted amount. The budget execution rates of the other OPs not listed here fall within the 80% range.

The OPs (highlighted in color) with execution rates below 80% for both the initial and annual budgets include: Program Monitoring and Research; Health Economics and Financing; Strengthening Drug Administration; Procurement; Storage and Supply Management of Health Services; Human Resource Development; Improved Financial Management; Planning, Monitoring and Evaluation; Health Information System; Training, Research and Development; and Information, Education, and Communication in the OPs under MEFWD jurisdiction.

Table 4-4: OPs with Fund Utilization Rates Under 80%

Name of OP	Fund utilization against allocation (%)	Fund utilization against release (%)
HSD		
SWPMM	68.29	88.5
PMR	60.57	70.13
HEF	58.66	64.12
SDAM	73.05	79.25
PSSM-HS	69.15	74.30
HRD	40.95	44.02
IFM	70.90	79.55
HSM	75.75	80.66
UzHC	71.61	80.12
ME＆FWD		
PME	66.70	70.27
MIS	60.72	66.00
TRD	64.39	68.13
CCSDP	79.40	81.44
IEC	68.64	75.21

*Note: Abbreviations of OP names are shown in Table 2-10.

Source: Prepared by the Survey Team based on Table 9 of the 4th HPNSP Final Report.

In contrast, the only OPs with execution rates exceeding 90% of both the initial and annual budgets are those under HSD jurisdiction, as shown in Table 4-5.

Table 4-5: OPs with Fund Utilization Rate Above 90%

Name of OP	Fund utilization against allocation (%)	Fund utilization against release (%)
HSD		
MNCAH	90.31	93.88
TB-L&ASP	92.9	90.3
CBHC	92.3	94.97
AMC	89.95	91.12
HGS-CXB	90.01	92.97

Source: Same as Table 4-4

In contrast, Table 4-6 shows the achievement level of each OP evaluation indicator. Percentages of unachieved indicators exceeding 50% are highlighted.

Table 4-6: Achievement of Indicators per OP

	Name of OP	Total number of indicator	Fully achieved (≧80%)	Partially achieved (50%～79%)	Not achieved (≦49%)
1	SWPMM	5	3	2	0
2	PMR	4	4	0	0
3	PME	4	4	0	0
4	HEF	5	1	2	2
5	SDAM	4	2	1	1
6	HIS&e-He	5	5	0	0
7	MIS	5	4	0	1
8	PSSM-HS	4	3	1	0
9	PSSM-FP	5	4	1	0
10	HRD	5	0	1	4
11	ME＆HMI	5	4	1	0
12	NMES	6	5	1	0
13	TRD	5	4	1	0
14	PFD	5	5	0	0
15	IFM	5	2	1	0
16	MNCAH	6	6	0	0
17	MCRAH	5	5	1	0
18	NNS	5	5	0	0
19	CDC	6	4	2	0
20	TB-L&AS	4	2	0	2
21	NCDC	6	3	0	3
22	NEC	4	1	0	3
23	CBHC	6	5	0	1
24	HSM	6	3	0	3
25	CCSDP	5	4	1	0
26	FFFSD	6	5	1	0
27	L&HEP	4	2	0	2
28	IEC	4	4	0	0
29	AMC	3	0	0	3
30	UzHC	5	1	1	3
31	HGS-CXB	5	5	0	0
	Total	150	104	18	28

Source: Survey Team based on the Endline Evaluation Report

Comparing budget execution rates and indicator achievement rates, human resource development showed low performance in both, suggesting a possible correlation. On the other hand, the Tuberculosis (TB)-Leprosy and Acquired Immunodeficiency Syndrome (AIDS)/ Sexually Transmitted Disease (STD) programs, as well as alternative medical care, had budget execution rates exceeding 90%, while their indicator achievement rates were less than 50%, suggesting that there are issues in the way budget is spent.

In the areas relevant to this survey, the evaluation indicator achievement rates for NCDs Control (NCDC) and UzHC are below 50%, while their budget execution rates are in the 80% range, suggesting the issues in the way budget is utilized. On the other hand, for the nursing and facility OPs, the budget execution rate is in the 80% range and the evaluation indicator achievement rates is also at the achievement level, suggesting that there are no apparent issues in the implementation of these OPs.

Three NCDC OP evaluation indicators with low achievement rates are: the number of UzHCs covered by awareness campaigns on NCD risk factors (30% achievement rate); the number of upazilas that initiated awareness campaigns on road accidents injuries, childhood drowning, and snake bites (22% achievement rate); and (3) the number of districts that conducted a multisectoral approach to raise awareness regarding NCD risk factors in targeted schools (20% achievement rate). The UzHC OP evaluation indicators with lower achievement rates are: the number of upazilas with at least 50% trained human resource (HR) on Standard Operating Procedures for referral (48% achievement rate); (2) the number of having institutional mechanism for tribal health PHC services through mobile medial teams (50% achievement rate); and the number of medical camps organized in urban areas (36% attainment rate). These two OPs are considered to play an important role in measures for NCDs control, especially lifestyle-related diseases, which is the focus of this Survey. In terms of lifestyle-related diseases, the NCDC OP achieved 82% and 100% of its targets for the number of community centers with no stock-outs of drugs for anti-hypertension and anti-diabetes and the number of upazila implemented hypertension diagnosis and referral services at the primary level, respectively, while the achievement rate for the awareness campaign is low, and that for the number of health care workers trained with standard operating procedures for referral in UzHC OP has not reached even the half of the target, thus it can be said that the measures as a whole are not being implemented in a harmonized manner.

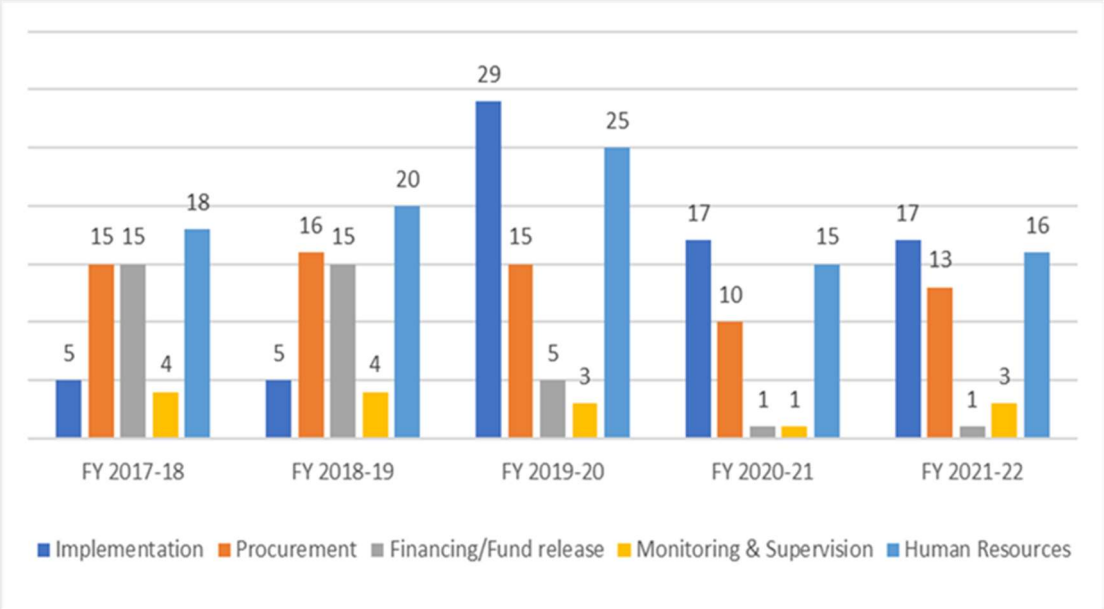


Figure 4-1: Number of Challenges Reported by LDs

Source: MoHFW, 4th HPNSP Annual Progress Report, FY 2021/2022

Figure 4-1 shows the evolution in the number of items identified as challenges in the annual reports for each year during the 4th HPNSP implementation period. While the initially prominent challenges related to funding, monitoring, and supervision have decreased over the years, challenges related to procurement and human resources have remained almost unchanged since the implementation period of the program in FY 2019/2020 and throughout the entire period.

In the 2017/18 fiscal year annual report, 80% of the issues noted—and 85% in the 2018/19 fiscal year annual report—were related to procurement, human resources, and fund expenditures[60][61]. Procurement and human resources continued to be identified as challenges in the 2018/19 fiscal year and subsequent years. The implementation of sector programs from the 2019/20 fiscal year onward has been heavily weighted as a challenge, primarily due to the impact of the COVID-19 pandemic. Although budget execution rates and evaluation indicator achievements for human resource development are low, the evaluation indicator for this OP does not adopt the increased number of healthcare workers. Therefore, the low rates of budget execution and indicator achievement may not be directly related to the challenges mentioned above.

For a detailed description of the contents of the Mid-term Evaluation Report, please refer to the preceding study[62].

Section 4.3, Challenges Related to the Administrative Structure for Health Sector Programs, mentioned points raised in the final report on the implementation of the SWAp. However, the final report also identified the following other points as challenges.

The main points raised in the Endline Evaluation Report are described in Section 4.3, Issues Related to the Administrative Structure Regarding the Health Sector Program. In addition to the three points mentioned in Section 4.3, the following issues were identified:

- With regard to human resource management and capacity building, there were no significant vacancies in either the DGHS or DGFP. However, significant vacancies were observed among Community Health Care Providers (CHCPs) and in other administrative and service delivery units below district level.
- While the Mid-term Report questions the effectiveness of the training due to its short duration, the training continues to be conducted on an ad hoc basis without a master training plan, and there is no documented feedback on its results.
- There has been a slow response from the MoHFW to external audit findings by the Office of the Controller and Auditor General (OCAG), taking one year to address minor findings and three to four years for more complex ones.
- Development budget execution varies from one year to the other and often fails to meet targets.
- Output data from iBAS++ is inconsistent with the financial documents produced by the LD.
- There is a high ratio of unexecuted budgets in the OPs.
- The LD and its staff lack capacity in financial management and procurement.

[60] Ibid, pp. 19
[61] Ibid, pp.22
[62] JICA, Report on the Information Collection Survey of Health Sector in Bangladesh, pp.60-62

- Delays in the submission of procurement plans occur due to inadequate procurement planning.
- The Central Medical Stores Depot (CMSD) experiences delays in procurement.
- There is a need to ensure product quality and preservation during product transportation and storage due to the lack of comprehensive inventory management mechanisms and automated distribution systems by the CMSD.
- Drug supply is delayed due to the limited supply capacity of Essential Drugs Company Limited (EDCL).

In addition to the above, the following matters were noted:

- Monitoring for the achievement of sustainable development goal (SDG) indicators was conducted regularly.
- The semi-annual progress report, introduced in the 3rd HPNSDP, was issued in 2018. However, it has not been prepared since then due to a lack of significant progress within six months.
- The PMMU, established in 2011 during the 3rd HPNSDP, continued to support program implementation, monitoring, and reporting during the 4th HPNSP.
- A T/A committee was established to support T/A activities and to coordinate T/A provision.

The Endline Evaluation Report concluded with a total of 54 recommendations. These recommendations are divided into the following areas: Governance and Management (6 recommendations), Human Resources Management (5 recommendations), Financial Management (5 recommendations), Procurement and Supply Chain Management (11 recommendations), Monitoring and Digitization (5 recommendations), and Service Delivery and Quality (22 recommendations). The following recommendations in each area are deemed relevant to this Survey.

Table 4-7: Key Recommendations of the Endline Evaluation Report

Governance and Stewardship	
1.1	Arrange regular meetings of the coordinating bodies, including the LCG-H, the Task Group, TAC, etc. as well as ensure regularity in various review meetings, including the monthly ADP meetings and OPIC meetings
1.2	Conduct a systematic review of the administrative restructuring/reforms carried out in MOHFW, including bifurcation of MOHFW into HSD and MEFWD, restructuring of FMAU and formation of DGME
1.5	Consider geographical differences in different health indicators for resource allocations to different districts and subdistricts. Local level planning, particularly for resource generation, can be considered in this regard
Human Resource Management for Health	
2.1	Fill-in key positions in the OPs, including those for accountant/accounts officer, DPMs and PMs as soon as possible in the 5th HNSP
2.2	Expedite the ongoing process of recruitment of HA and FWA, especially initiate recruitment against vacant positions of SACMO in DGHS and DGFP, medical technologists in DGHS and of FWVs and Pharmacists in DGFP
Financial Management	
3.1	Strengthen the coordination between the FMAUs and the Budget wings of both Divisions for improved budgeting process
3.3	Strengthen the coordination with LDs to reduce mismatch between financial data from the iBAS++ and the financial statements produced by the LDs.
3.5	Introduce rigorous training on financial management and audit for the key personnel of the OPs as soon as possible in the 5th HPNSP. Make provision for periodic refresher training.
Procurement and Supply Chain Management	
4.1	Expedite the process of restructuring CMSD through regular coordination with MoF and MoPA
4.2	Introduce longer-term training (2 to 3 weeks) on procurement and Supply Chain Management (SCM) for the OP managers (LD, PM and DPM) as well as for the field level managers (CS, DDFP, UHFPO and UFPOs)
4.5	Strengthen coordination of CMSD and Logistics and Supply Unit (LSU) with the respective OPs to ensure on-time procurement planning
4.11	Update the Delegation of Financial Powers based on a comprehensive study to facilitate utilization of fund at the local level.
Monitoring and Digitization	
5.2	Introduce a system for regularly capturing data from private sector and NGO healthcare providers for incorporation into the routine data of MOHFW
5.3	Ensure the sustainability of the PMMU for continuous monitoring of progress of the program
5.4	Establish Bangladesh National Digital Health Architecture (BNDHA) and Digital Health Interoperability framework (DHIF) for ensuing data management in health involving all stakeholders generating health data
Service Delivery and Quality	
6.1	Enhance the capacity of CCs and UH&FWCs with regular and adequate supply of essential medicines and reproductive health commodities
6.4	Expand the good practices implemented in 4th HPNSP (e.g., NCD corners, Midwifery-led care, Community Eye Centers, PPFP, Nutrition interventions, etc.)
6.6	Strengthen health information systems and ensure timely availability of data for decision-making in improving service delivery and quality
6.7	Establish functional referral system to avoid overcrowding in DHs and MCHs through a rigorous study especially to identify the most feasible mode of referral system in Bangladesh context
6.8	Develop a comprehensive repair and maintenance plan for the electromedical equipment at secondary and tertiary level hospitals and in view of limited capacity of NEMEMW&TC for undertaking such work. Also consider outsourcing the repair and maintenance of these equipment to private sector providers through appropriate service contracts
6.21	Expand the Women Friendly Hospital Initiative (WFHI) to all the UzHCs and DHs to ensure that healthcare facilities have the necessary equipment, medications, and trained personnel to address the specific health needs of women and girls
6.22	Strengthen community engagement and awareness programs which address socio-cultural barriers that prevent women from seeking care and promote shared responsibility for health and well-being

Source: Survey Team based on MoHFW materials[63].

[63] MoHFW, Endline Evaluation Report of the 4th HPNSP, pp.143-148

4.5 Analysis of Donor Coordination in the Health Sector Program

4.5.1 Donor Coordination Mechanism and Challenges

The donor coordination mechanism consists of the following three components:

- Bangladesh Development Forum (BDF)
- Local Consultative Group (LCG)
- Development Partner Consortium (DPC)

The Bangladesh Development Forum (BDF) is a high-level policy dialogue forum organized by the Economic Relations Division of the Ministry of Finance. The name "BDF" originates from the fact that the consultative meeting, previously held in Paris under the auspices of the World Bank, has since been relocated to on-site consultations. The most recent Forum was held in 2020. The Development Forum is not specific to the health sector, as it brings together a diverse range of stakeholders to discuss development issues. An Executive Committee (ExCom) was established but has not met since the COVID-19 outbreak, leading to a decline in donor coordination through the BDF. The main reason for this decline were the spread of COVID-19 and the government's reduced support following the World Bank's withdrawal due to corruption in the government sector.[64]。

The LCG consists of two parts: the Executive Committee (LCG ExCom), which is the highest-level forum for discussion, and LCGs by theme. While the LCG ExCom is a high-level meeting not limited to the health sector, the health sector LCG is chaired by the Permanent Secretary of the Ministry of Health and Family Welfare and attended by senior management from MoHFW as well as representatives from each donor. The health sector consultative group refers to itself as "local" because it meets in Dhaka. The LCG serves as a forum for dialogue between the Government of Bangladesh and donors.

The Development Partner Consortium (DPC) was established to coordinate donor support, with task groups established under the LCG for each theme. These task groups focus on the following areas: Monitoring and Evaluation, Financial Management, Procurement, Nutrition, Human Resources, Gender, Equality, Opinion and Accountability, Maternal and Child Health and Family Planning, Health Financing, and Sector Management. Within the task groups, the Government of Bangladesh and donors consult with each other, as well as among donors themselves. At DPC, activities extend beyond information sharing about individual donor actions to include presentation on activities and produced reports. Policy and strategic-level discussions—such as messages from donors to the government, prioritization of reforms—are also discussed for each sector.[65] The DPC also played a leading role in developing the 5th HPNSP and in preparing the Sector Investment Plan (SIP)/ Program Implementation Plan (PIP) and OPs with the LDs.[66] The DPC meets once a month, but meetings are limited to 2.5 hours, which does not allow for detailed technical coordination; therefore, technical coordination must be done separately.[67] Since the spread of COVID-19, the DPC has not met, and only the donors' task groups have been

[64] Based on the hearing from SIDA on 4 December 2024
[65] Based on the hearing from ADB on 11 February 2025
[66] Based on the hearing from UNFPA on 8 December 2024
[67] Based on the hearing from UNICEF on 1 December 2024

meeting on an ad hoc basis.

Based on interviews with the Swedish International Development Cooperation Agency (SIDA), which served as DPC Chair until September 2024, and the United States Agency for International Development (USAID), it was concluded that coordination among donors centered around the SWAp for the health sector program has lost momentum. SIDA staff cited the impact of COVID-19, as well as the introduction of performance indicators by the World Bank as the reason for this decline. Donors other than the World Bank perceived that the World Bank was strengthening its position as the lead donor through the introduction of performance indicators. USAID perceived that annual program reviews by external committees were increasingly seen as assessments to obtain funding from the World Bank, and that government ownership had diminished more than before. This coincided with Bangladesh's upcoming graduation from the Least Developed Country (LDC) status in 2026, for which preparations had already begun. Donors that had previously provided support through grant aid began reducing their funding, shifting instead to the provision of T/A. In contrast to the indirect approach of the World Bank—providing large amounts of funding linked to performance indicators—UN agencies, such as UNICEF and UNFPA prefer project-based aid, where results can be realized through more direct outreach. Bilateral agencies such as SIDA and USAID are generally supportive to this approach. As a result, the Paris Declaration on Aid Effectiveness—which, at the time of SWAp introduction, somewhat forcefully encouraged donors to participate in SWAp using government budget execution mechanisms—is now considered to be losing relevance. On the other hand, a hearing with the DGHS Planning Wing in February 2025 indicated that project-based support from each donor would make it easier to grasp the effects. Against this background, to improve the effectiveness of aid in specific areas and to maintain dialogue between the Government of Bangladesh, which has become increasingly reluctant to engage with donors, collaboration among donors working on development issues is considered even more important.

4.5.2 Analysis of the Current Situation Regarding Donor Support for Health Sector Programs and Evaluation of Aid Approaches

In the 4th HPNSP, WHO, the United Nations Children's Fund (UNICEF), the United Nations Population Fund (UNFPA), and the International Organization for Migration (IOM) provided support for health service delivery as partner agencies. However, due to the nature of technical cooperation, the amount of support provided per agency has not been reflected in compiled statistics. In addition to the Global Financing Facility (GFF), Canada, the Netherlands, Sweden, and the Gavi Alliance are co-financing the World Bank loan[68] supporting the 4th HPNSP. UNFPA has also received funding from the World Bank's additional loan for Health Sector Support Project (HSSP)[69] to strengthen midwifery management in Cox's Bazar, and a collaboration between the two has resulted in the placement of midwives in 80 primary healthcare facilities.

The following is a breakdown of the expected financial support from each donor listed in the PIP of the 5th HPNSP.

[68] Health Sector Support Project (HSSP) (P160846)
[69] Additional Financing for Health Sector Support Project (HSSP) (P167672)

Table 4-8: Funding Type by DP

Source	Amount（Million USD）			Amount (Taka Crore)		
	Total	Reimbursable Project Loan/Grant	Direct Project Grant	Total	Reimbursable Project Loan/Grant	Direct Project Grant
World Bank	479.00	479	0.00	5,269.00	5,269.00	0.00
GFF	25.00	25	0.00	275.00	275.00	0.00
ADB	503.00	500	3.00	5,533.00	5,500.00	33.00
JICA	83.54	76.89	6.65	918.91	845.80	73.11
GFATM	169.00	0	169.0	1,859.00	0.00	1,859.00
Sweeden	12.00	0	12.00	132.00	0.00	132.00
Canada	3.69	0	3.69	40.59	0.00	40.59
UNICEF	69.60	0	69.60	765.60	0.00	765.60
Gavi	199.60	0	199.60	2,195.60	0.00	2,190.60
UNFPA	10.00	0	10.00	110.00	0.00	110.00
WHO	56.00	0	56.00	616.00	0.00	616.00
Sub-Total	1,610.43	1,080.89	529.54	17,714.70	11,889.80	5,824.90
General Block Allocation	700	500	200	7,700	5,500	2,200
Grand Total	2,310.43	1,580.89	729.54	25,414.70	17,389.80	8,024.90

Source: MoHFW[70]

The sources of funds provided above list the donors supporting the health sector. Expected funds are categorized according to each method of support implemented by each donor in the 4th HPNSP. Only the World Bank (and Global Financing Facility (GFF)) provided reimbursable project loan, while the ADB provided both a reimbursable project loan and a direct project grant. In contrast, UN agencies such as UNICEF and UNFPA provide only direct project grant.

As of the time the PIP was prepared, the total expected contribution from donors amounted to only USD 161.043 million, leaving a financial gap of USD 700 million from the total budget estimate. The Government of Bangladesh was seeking additional donor funding. At the same time, the government was seeking to reduce duplication among OPs and improve budget execution efficiency, as the World Bank's loans were reduced by USD 75 million—from an estimated USD 479 million (including GEF grants) to USD 404 million—compared with the PIP's estimation. The financial gap further widened at the time of the survey in February 2025[71], given the significant decrease in the ADB's expected loan amount from an estimated USD 503 million to USD 100 million. While the World Bank loan was approved without waiting for ECNEC approval of the 5th HPNSP, other donors were expected to decide on the details of their support based on ECNEC's approval of the 5th HPNSP. For this reason, as of February 2025, there were no donors other than the GFF co-financing the World Bank loan, except for the ADB, which was considering parallel financing. It was natural to conclude that there was no longer any prospect of raising the amount of support from the donors expected in Table 4-5.

[70] MoHFW, the 5th HPNSP PIP, pp.12-13
[71] Based on hearing from ADB on 11 February 2025.

As mentioned previously, UN agencies such as UNICEF and UNFPA are implementing the contents of the HPNSP OP as their own projects. In other words, they are implementing the contents of the HPNSP through their own method, not as participants in the SWAp. These agencies focus on improving medical services at frontline medical institutions where the implementation capacity of Bangladesh is the weakest, and their support is considered highly significant. However, in reality, works that should be implemented by Bangladesh are being carried out by donor staff or consultants employed by donor. Since these activities are within the HPNSP framework, they are covered by the development budget, including personnel expenses for staff engaged in these activities. Therefore, when the period of HPNSP implementation ends, personnel payments also cease, and staff are dismissed. To continue providing the medical services beyond the HPSNP period, it is necessary to transfer activities currently funded by the development budget to the non-development budget. However, it is questionable whether such budget-switching mechanism can be sustained continuously, considering the separated process for both budgets and the budget formulation and implementation capacity of the MoHFW. As a result, doubts remain as to whether the activities supported by donors will be sustained in Bangladesh after the donor assistance ends.

According to the PIP for the 5th HPNSP, during the implementation of the 4th HPNSP, there were 36 health sector projects to be implemented outside the HPNSP planned for fiscal year 2022/23. This number increased from 34 in fiscal year 2017/18. While the number of projects outside the HPNSP is increasing, the budget allocation for these projects as a percentage of the MoHFW development is decreasing—from 25% in fiscal year 2017/18 to 17% in both fiscal year 2018/19 and 2019/20. Behind this is a declining trend in the execution rate of these project budgets. According to the PIP, the budget execution rate decreased from 83% in fiscal year 2017/18 to 23% in fiscal year 2020/21, pointing to slow project progress. The MoHFW, comparing this to the high budget execution rate of the HPNSP program in the PIP for the 4th HPNSP, favorably argues the advantages of implementing project within the HPNSP framework[72], given the significantly low rates of these projects.

Projects outside the HPNSP include facility construction planned by the MoHFW Planning Wings and commissioned to the Public Works Department (PWD) and the HED within the HSD. Donor-supported DPP projects tend to experience delays because bidding is conducted separately for each project using procurement methods that vary by donor. Additionally, approval procedures are required both on the donor side and within Bangladesh's internal procedures. The greater the number of projects and donors, the longer the delays tend to be. However, as noted in the Mid-term and Endline Evaluation Reports, delays in procurement, budget distribution, and execution have also been observed within the implementation of the HPNSP. Since the structural problems on the Bangladesh side causing delays in both implementation methods are believed to be the same, the merits and demerits of aid implementation methods cannot be judged simply based on the budget execution rate. When donor support is received under the DPP system, MoHFW staff must navigate different procedures for each donor, in addition to the procedures required by the Bangladesh government. This creates additional burdens compared with SWAp, which is unified under the Bangladesh government's procedures. The introduction of SWAp aimed to utilize the Bangladesh government's budget implementation mechanism to provide support, as support provided from each donor complicated the overall project procedures and make it difficult to grasp the overall picture. As

[72] MoHFW, the 5th HPNSP PIP, p.553

the HPSNP Endline Evaluation Report pointed out, the results of the SWAp introduction are only halfway there.

4.5.3 Analysis of Information Related to Results-based Loans, Departments in Charge, Loan Implementation Methods, Evaluation Methods and Structure, JICA's Possible Participation

As the ADB's results-based loans is still in the preparation stage and its details are not yet available, this Survey describes the implementation scheme of the World Bank's Program-for-Results loan[73], which was approved by the Board of Directors in December 2024.

The World Bank aligns its support with the following three areas of results:

1. Enhancing access and utilization of climate-responsive health and nutrition services.
2. Strengthening the health system to meet the evolving needs of the population.
3. Building resilient health systems to prepare for and respond to climate change.

Results indicators have been established for each of these three outcome areas. The relationship among them is shown in Figure 4-2 as the Theory of Change.

[73] Health, Nutrition and Population Sector Development Program-for-Results, 25 November 2024

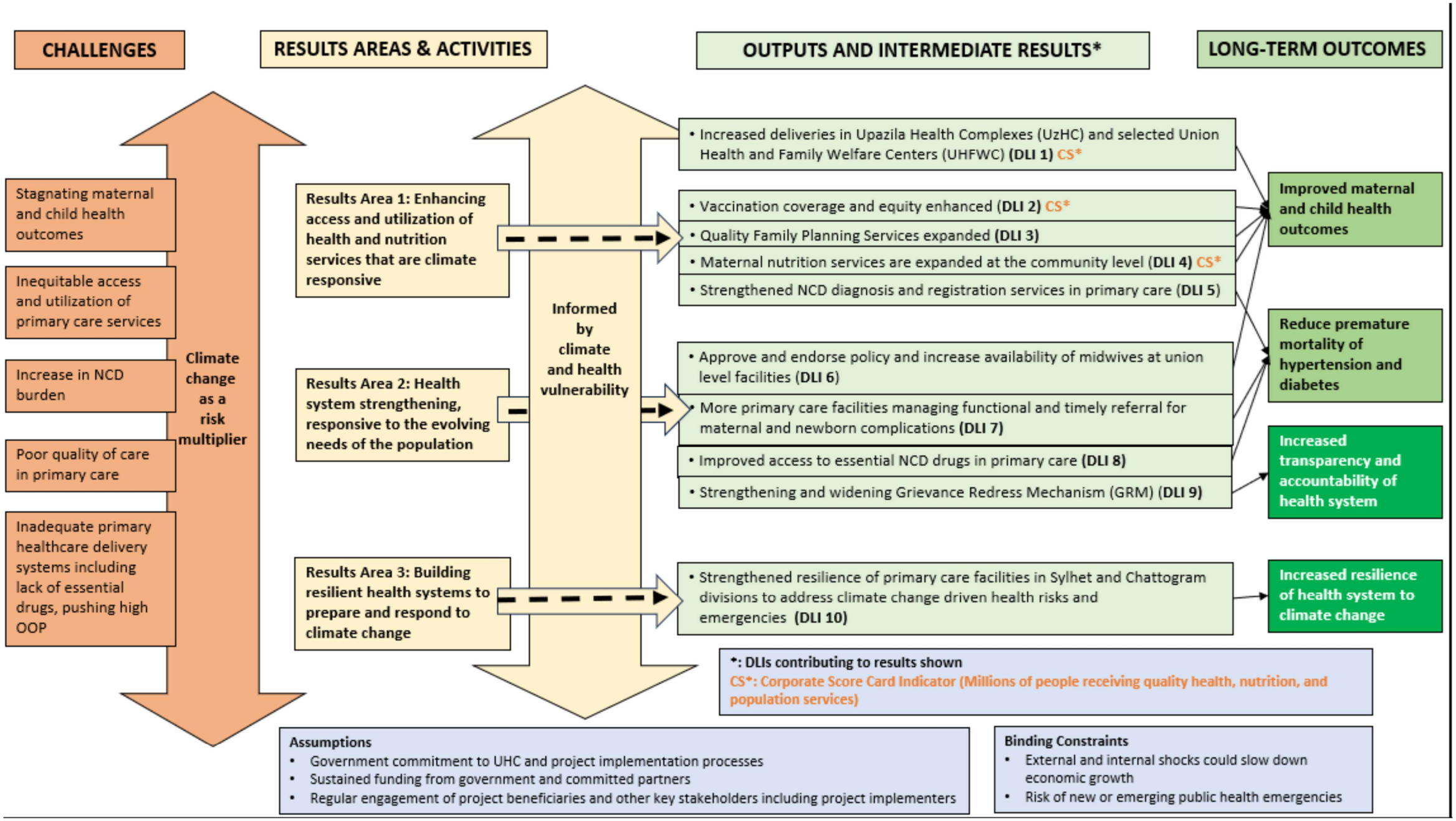


Figure 4-2:Theory of Change of the World Bank Program

Source: World Bank[74]

[74] Health, Nutrition and Population Sector Development Program-for-Results, Project Appraisal Document, p.6

The activities supported by the World Bank's Program-for-Results loan will be implemented using the existing organizational structure of the SWAp within the MoHFW. Specifically, the Planning Wings of the HSD and the MEFWD will serve as the contact points for monitoring, consultation with, and reporting to the World Bank.

Disbursement from the World Bank loans will be made based on confirmation of achievement of DLIs. A maximum loan amount is set for each performance indicator. Annex 2 of the World Bank's Project Appraisal Document outlines the annual performance targets for the five-year period from 2025 to 2029 for each performance indicator (i.e., verification protocol).

For the output indicators, the Planning Wings of the MoHFW will collect the data registered mainly in DHIS2 in a manner aligned with the results indicators and submit it to the Implementation Monitoring and Evaluation Division (IMED) under the Ministry of Planning. The data will be validated by IMED and subsequently approved by the DLI Review Committee. The review will be conducted according to the results matrix. The approved results will then be submitted by the Government of Bangladesh to the World Bank, which will confirm the results and proceed with disbursement. The loan will be disbursed to the treasury account of the Government of Bangladesh.

As mentioned in Section 4.5.1, Donor Coordination Mechanisms and Challenges, the DPC Task Group monitored the progress of the 4th HPNSP. Therefore, the same group is also expected to monitor the progress of the 5th HPNSP. The DLI Review Committee, formed under the 4th HPNSP, has been convened with participants from the Government of Bangladesh, the World Bank, and members of the OP Implementation Committee. As such, JICA's participation in the DLI Review Committee would be possible if it becomes a member of the OP Implementation Committee. If JICA's JPY loan co-finances the ADB loan, JICA could also join the DLI Committee as a co-financier. In this case, JICA's participation in the DLI Review Committee meeting would enable it to directly verify the achievement of performance indicators, eliminating the need to request ADB, its co-financing partner, for confirmation on the achievement of the performance indicators. On the other hand, even if JICA sets its own performance indicators for the JPY loan, it must verify their achievement independently—following the same mechanism used for achieving other performance indicators.

4.5.4 Analysis of DLI

Table 4-9 shows the World Bank's DLIs.

As described in Section 4.5.3, Analysis of Information Related to Results-based Loan, Departments in Charge, Loan Implementation Methods, Evaluation Methods and Structures, JICA's Possible Participation, etc., the World Bank's sector program is structured around three result areas within the framework of the 5th HPNSP, each with its own set of results indicators. For example, Result Area 1 focuses on enhancing access to and utilization of health and nutrition services, with five specific DLIs to measure the achievement of this result.

For example, for the loan to be based on Results Indicator 1, the specific measurement focuses on the increase in deliveries at UzHC and Union Health and Family Welfare Center (UHFWC). According to the verification protocol, the baseline number of births is set at 155,621 (in 2024), with a target of a 10% increase by 2029. A

disbursement of USD 4 million will be made for every 1% increase achieved through 2029. In Result Area 1, each item generally includes only one DLI for measurement, except for Result Indicator 4, which is further subdivided into three DLIs to assess progress.

Table 4-9：World Bank Loan's DLIs

World Bank	
Result Areas	DLIs
RA1: Enhancing access and utilization of health and nutrition services that are climate responsive	DLI 1. Expansion of meternal health care services DLI 1.1 Institutional deliveries in the UzHC and UH&FWC increased
	DLI 2. Enhancing the immunization coverage and equity DLI 2.1 Districts in Sylhet and Chattogram division maintain 88% (male and female children) valid vaccine coverage for all antigens by the age of 23 months
	DLI 3. Expansion of family planning services DLI 3.1 Long-acting contracewptives provided to married women aged 15-49 years in Sylhet and Chattogram divisions
	DLI 4. Expansion of maternal nutrition services at the commnity level DLI 4.1 Policy incorporation to the satisfaction of the Association of Maternal Micronutrient Supplements in the Government's antenatal care program for improvement of maternal nutrition DLI 4.2 Inclusion of MMS supply-chain to the satisfaction of the Association for the Community Clinics DLI 4.3 Newly registered pregnant woment receiving MMS during any antenatal care visits at the Community Clinics in Sylhet and Chattogram divisions, reported for previous CY
	DLI 5. Strengthening of NCD diagnosis and registration services in primary care level DLI 5.1 Adults diagnosed and registered with hypertention and type 2 diabetes in primary health care facilities in Sylhet and Chattogram divisions
RA 2: Health system strengthening, responsive to the evolving needs of the population	DLI 6. Propagate policy for availability of midwives at union leve facilities DLI 6.1 Request for post creation sent from MoHFW for midwives at Union Health & Family Welfare Center endorsed by Ministry of Public Administration DLI 6.2 Request of post creation sent from MoHFW to midwives at Unkion Health & Family Welfare Center endorsed by Ministry of Finance DLI 6.3 Post creation request for midwives at Union Health & Family Welfare Center approved by Cabinet Division DLI 6.4 At least 2 diploma midwives posted in selected UH&FWC in Sylhet and Chattogram divisions
	DLI 7. Establishing functional and timely referral for facilities at the Upazila level DLI 7.1 System for functional and timely referrals to Comprehensive Emergency Obstetric and Newborn Care initiated DLI 7.2 Primary health care facilities (UzHC) are ready to provide referral services through staff orientation and training based on national guidelines DLI 7.3 Primary heath care facilities (UzHC) performing timely regferral based on national guidlines
	DLI 8. Improved access to essential NCD drugs om primary health care level (Upazila) DLI 8.1 Primary health care facilities (UzHC) with uninterrupted drug supply of essential NCD drugs
	DLI 9. Strengthening grievance redressal system DLI 9.1 Grievance redressal guideline developped for Directorate General fo Family Planning facilities repoted through Annual GRS performance report in the last two years DLI9.2 Recortded grievance resolved in Directorate General of Health Services only
RA3: Building resilient health systems to prepare and respond to climate change	DLI 10. Strengthening the reislience of the Upazila-level health system to address public health emergencies brought on by climate change DLI 10.1 Primary health care facilities (UzHC) develop contingency plans to the satisfaction of the Association based on climate vulnerabilities, capacities and needs DLI 10.2 Primary health care facilities (UzHC) have sufficient number of health care workers trained on Climate and Health

Source: Created by the Survey Team based on the information of the World Bank[75]

[75] Produced by the Survey Team based on Health, Nutrition and Population Sector Development Program-for-Results Project Appraisal Document

Notable among the World Bank's DLIs is Indicator 6. In order to achieve the increased staffing of midwives in health facilities, it is stipulated that after obtaining the MoPA and the MOF approval, midwives with diploma will be assigned to 100 UHFWCs in the Sylhet and Chattogram divisions. The targets are structured sequentially—first obtaining the Ministry of Public Administration (MoPA) approval, followed by the Ministry of Finance (MOF) approval, and finally the actual placement of midwives at the designated UHFWCs, with disbursements to be made at each stage.

In addition to the DLIs linked to loan disbursement, the World Bank's sector program has developed 16 action plans whose progress will be monitored independently from the achievement of the DLIs. These action plans cover arrange of activities, including financial management training for LD offices by the FMAU, internal audits conducted by newly hired FMAU staff, improvement of asset management systems, preparation of asset reports using the DH's asset management software, supply of essential drugs for NCDs to DHs and UzHCs, and the construction of a medical waste treatment facility at UHFWC.

Note also that World Bank loans permits advance payments of up to 25% of the loan amount. This advance payment will be offset from the remaining 75% of the loan amount. With respect to performance indicator 6.1, the Bank can reimburse up to USD 10 million of costs incurred from October 19, 2023 through December 19, 2024, the date of loan approval.

ADB was preparing to provide its own results-based loan to the 5th HPNSP, to be implemented in parallel with the World Bank loan. ADB intended to adopt the same results-based indicators as World Bank in some areas, which are highlighted in Table 4-9 above. As of February 2025, ADB was still considering the selection of results-based indicators. However, as explained in Section 2.4.4, the MoHFW was reconsidering whether to proceed with the 5th HPNSP, consequently, ADB envisaged that MoHFW would not implement it as originally planned[76], and stopped further preparation.

4.5.5 Information and Analysis on Target Areas for Donor Assistance in the 5th HPNSP

While the Bangladesh government implements the HPNSP nationwide and the World Bank's sector program will follow the OP of the 5th HPNSP, performance indicators for health service provision will be specifically set for the Sylhet and Chattogram divisions. The indicators measured in these two divisions will include: 1) the number of long-term contraceptives medicine provided to married women aged 15-49, 2) the number of adults diagnosed and registered at PHCs for hypertension and type 2 diabetes, and 3) the number of diploma midwives assigned to UzHCs. Sylhet and Chattogram divisions were selected due to their maternal and child health indicators being below the national average and their heightened vulnerability to climate change impacts.

In response, ADB indicated that it is considering targeting the entire country for its results-based loans, as it would be difficult to justify to its Board supporting only a very limited area given the scale of funding planned. Previously, it had envisaged Rangpur and Khulna as the targeted regions. However, following the political turmoil in August

[76] Based on hearing from ADB on 25 February 2025.

2024, discussions with the new Secretary-General became necessary. Consequently, ADB staff anticipate that deciding whether to limit the target areas to just two divisions will require several additional consultations moving forward[77].

In the 4th HPNSP, following the midterm review, a fourth objective was added to address the needs of Myanmar nationals forcibly displaced in 2017, which led to increased support for areas surrounding Cox's Bazar. The newly added measures targeting these displaced populations were implemented with technical support from WHO, UNICEF, UNFPA, and IOM. According to the Endline Evaluation Report of the 4th HPNSP, the response—carried out in collaboration with these agencies—provided facilities and health services to 13 health and family welfare posts, primary health centers, 11 family welfare centers, and Rohingya refugee camps. Additionally, support has been extended to strengthen MoHFW facilities in neighboring areas.

In contrast, the 5th HPNSP has not formulated any OPs that deal exclusively with assistance for Myanmar nationals. Furthermore, the OPs addressing NCDs control, nursing services and education, physical facilities, and MIS—which are covered in this Survey—do not specifically target the areas around Cox's Bazar, unlike the 4th HPNSP. Therefore, the 5th HPNSP is expected to adopt a uniform manner across the entire country. Among major donors, USAID is providing assistance on improving access to maternal and child health care in the Chittagong Hills Region, while WHO, UNICEF, and UNFPA have not narrowed down their assistance to specific areas, aside from their support to forcibly displaced Myanmar nationals.

[77] Based on an interview with ADB on 27 November 2024.

Chapter 5 Current State Analysis on NCDs Control in the 5th HPNSP

This chapter analyzes Noncommunicable Diseases (NCDs) control including aging-related measures, within the 5th HPNSP. It also considers the potential direction for JICA's assistance in this area.

5.1 Positioning, Challenges, and Support Needs for NCDs Control

The OPs related to NCDs[78] control in the 5th HPNSP (PIP) are summarized in the table below.

Table 5-1: OPs Related to NCDs Control

Table Number	Name of the OP	General Objective	Important Description
4.8	Upazila Health Care (UzHC[79])	To ensure complete facility readiness at all Upazila Health Complexes (UzHC) to provide quality health care services.	"The Operation Plan (OP) of Upazila Health Care (UzHC) has been prepared with an aim to upgrade and equip all UzHCs to 100 bed facilities (after conducting a feasibility study based on historical bed occupancy rate) for providing secondary level care." (p239)
4.11	Primary Health Care (PHC)	To expand coverage along with access to quality PHC services in both rural and urban areas.	"The ESP (Essential Service Package) is set to be updated in the 5th HPNSP to address evolving population dynamics, disease burdens, geographical disparities, and ensure equitable access to care, including services for NCDs (NCDs), mental health, and geriatric care." (p278)
4.15	NCDs Control (NCDC)	To reduce mortality and morbidity of NCDs in Bangladesh through control of risk factors and improving health service delivery.	"In the 5th HPNSP, the NCDC OP will strengthen the efforts of DGHS in addressing major NCDs, including hypertension, diabetes, cardiovascular diseases, respiratory diseases, renal diseases and cancer." (p322) "Overall, the NCDC OP in the 5th HPNSP will strive towards enhancing health system's capacity to detect, manage and control of NCDs while ensuring equitable access to services for all citizens." (p322)
4.19	Community-based Healthcare (CBHC)	To achieve Universal Health Coverage (UHC) by ensuring quality primary health care services at the doorsteps of rural community all over Bangladesh.	"Additionally, efforts will be made to increase community awareness about new services, such as NCDs drugs, through regular education sessions and mass campaigns." (p364)

Source: Created by the Survey Team based on the MoHFW materials[80]

It is important to note that NCDs control encompasses the development of both public and private health service provision, sectoral and regional initiatives, as well as individual awareness and behavior change. As such, when viewed broadly, numerous OPs are related to NCDs control. However, in this context, four OPs have been identified from the perspective of 'public health service provision', which is the main focus of JICA's support.

[78] Basically, it is written in the plural form as 'NCDs'. Exceptions are 'NCD risk, NCD management model and NCD corners', which are written in the singular form.

[79] That UzHC is an abbreviation for Upazila Health Care. UzHC elsewhere in this report is used as an abbreviation for Upazila Health Complex.

[80] MoHFW, The 5th HPNSP PIP, Volume-I

Each of these OPs is explained below.

(1) Upazila Health Care (UzHC)

General objective is stated that "to ensure complete facility readiness at all UzHCs to provide quality healthcare services". Specific objectives are to activate the quality improvement committee, safety management, human resources, medical waste management (MWM), data analysis, etc. An important description is described that "an aim to upgrade and equip all UzHCs to 100-bed facilities (after conducting a feasibility study based on historical bed occupancy rate)". Currently, many county hospitals have fewer than 50 beds, and the aim is to approximately double the number of beds. As stated in the specific objectives, this OP also includes activities related to Medical Waste Management (MWM).

(2) Primary Health Care (PHC)

This OP was the first OP developed in the 5th HPNSP, demonstrating the intention of the Bangladesh government intention to focus more on PHC. The general objective is stated that "to expand coverage along with access to quality primary health care (PHC) services in both rural and urban areas". Specific objectives include community and stakeholder's awareness raising; quality services for school health and nutrition; quality services for the ageing population; ethnic communities and vulnerable groups; etc. An important description is described that "the essential service package (ESP) is set to be updated in the 5th HPNSP to address evolving population dynamics, disease burdens, geographical disparities, and ensure equitable access to care, including services for NCDs, mental health, and geriatric care".

One of the five core services in the current ESP (revised 2016) is NCDs control, which includes hypertension, diabetes, screening and management, cancer (breast and cervical cancer), other conditions (arsenic poisoning, COPD), mental health, and SGBV. It is expected that the Bangladesh government will further review and strengthen NCDs control including geriatric care.

(3) NCDs Control (NCDC)

General objective is stated that "to reduce mortality and morbidity of NCDs in Bangladesh through control of risk factors and improving health service delivery". Specific objectives are described about developing and implementing evidence-based public policies; strengthening surveillance systems; strengthening the capacity of data analysts; creating and maintaining socio-economic conditions to address NCDs factors (social inequality, urbanization, globalization); empowering individuals and communities to manage their health; strengthening the health system's capacity for early detection and control of NCDs; and strengthening equitable access to health services for all, etc. An important description is described that "In the 5th HPNSP, the NCDC-OP will strengthen the efforts of DGHS in addressing major NCDs, including hypertension, diabetes, cardiovascular diseases, respiratory diseases, renal diseases and cancer—overall, towards enhancing the health system's capacity to detect, manage, and control NCDs".

Then, NCDs are classified in this OP, which are summarized in the table below.

Table 5-2: NCDs Categories in NCDC-OP

Component 1	Major NCDs-I (Hypertension, Diabetes, Cardiovascular Disease)
Component 2	Major NCDs-II (Respiratory Disease and Cancer)
Component 3	Occupational Health
Component 4	Renal Diseases, Geriatric Health and Palliative Care
Component 5	Ear Care, Musculoskeletal Health and Tobacco Control
Component 6	Injury including poisoning and snakebite, Drowning
Component 7	Climate Change and Emergency Preparedness and Response (EPR), Post Disaster Health Management & Emergency Medical Care
Component 8	Thalassemia, Hemophilia and Thyroid disease (including congenital)

Source: Created by the Survey Team based on the MoHFW materials [81]

In the above disease categories, MoHFW has confirmed that the highest-priority target diseases are 'Major NCDs-I (hypertension, diabetes and cardiovascular disease)' of Component 1, as the majority of deaths are related to these diseases. It has also been confirmed that NCD corners have been established in each district and upazila hospital[82]. Japanese aid has been directed toward measures for 'Major NCDs-I (particularly hypertension and diabetes'. Moreover, it is described in Component 1 that "a comprehensive strategy leveraging the Primary Health Care system for screening, early detection, and referral. Training of health workers, adoption of multi-purpose volunteers, and the use of app-based tools for risk identification are also included."

And Component 2 is 'Major NCDs-II (respiratory disease and cancer)'. Respiratory diseases, especially asthma and COPD, are the targeted disease in the NCD corners and should therefore be prioritized in Japanese aid going forward. Moreover, it is described that "the component focuses on utilizing the PHC system for preventive measures, public awareness, and early detection, emphasizing PHC once again. Regarding cancer, it is stated that screening activities for breast, cervical, oral, and childhood cancers will be conducted at the population level, with Health Workers being trained for these tasks".

Then the following six targeted indicators for NCDs control are listed.

Table 5-3: Targeted Indicators in NCDC-OP

Indicator	OP Level Indicators	Baseline (Year)	Projected Target	
			By June, 2027	By June, 2029
1	Development and implementation of NCD management model (diabetes and hypertension) following PEN protocol/national NCD management guideline	2 UzHC (2018)	75	300
2	Refilling of anti-hypertensive and anti-diabetic drugs up to CC	65 CC (2021)	500	1500
3	Upazilas covered by awareness campaigns on NCD risk factors	150 UzHC (2021)	350	492

[81] MoHFW, The 5th HPNSP PIP, Volume-I

[82] According to the hearing from Line Director and Deputy Program Manager in NCDC/MoHFW on 13 February 2025. NCD corners have been set up already in 429 UzHCs and more than 30 district hospitals.

Indicator	OP Level Indicators	Baseline (Year)	Projected Target	
			By June, 2027	By June, 2029
4	Districts level multisectoral meeting to raise awareness regarding NCD risk factor among school level	2 Districts (10 Schools) (2021)	30 (150 Schools)	64 (320 Schools)
5	Upazilas covered by awareness campaigns on road traffic injuries and childhood, drowning & snake bite)	100 UzHC (2021)	350	492
6	Facility based Cancer Registry	3 Facilities (2021-2022)	12	15

Source: Created by the Survey Team based on the MoHFW materials [83]

In addition, an estimated budget has been allocated for each activity under the above disease categories, with a total of approximately BDT 19 billion expected to be disbursed by the Government of Bangladesh and donors. About 75% of this amount (around BDT 14 billion) will be allocated to 'Major NCDs-I (hypertension, diabetes, and cardiovascular disease)' of Component 1, it is apparent that the measures to address Major NCDs-I are highest-priority in terms of the budget.

(4) Community-Based Healthcare (CBHC)

General objective is stated that "to achieve UHC by ensuring quality primary health care services at the doorsteps of rural communities all over Bangladesh". Specific objectives include digital referral systems, community mobilization, community clinic (CC) construction and maintenance, staffing, human capacity development, online information management systems, etc. An important description is that "Additionally, efforts will be made to increase community awareness about new services, such as NCDs drugs, through regular education sessions and mass campaigns". This likely aims to disseminate refilling of drug (Targeted Indicator 2 of NCDC-OP) in CC.

5.2 Analysis of the Current Situation Regarding the Status and Measures of Chronic Diseases Such as Hypertension, Diabetes, Cancer and Respiratory Diseases

The analysis of the current status of NCDs is also described in the 5th HPNSP as a comprehensive and up-to-date report. It is stated that "people suffering from NCDs in Bangladesh, in general, lack access to quality, safe, effective, and affordable essential health services, which is almost absent, especially in rural areas"[84]. And based on a WHO report, it is also noted that "In Bangladesh, the total number of NCD deaths in 2021 was 557,200"[85].

And regarding NCDs control, the 4th HPNSP focused on 'early detection and control of NCDs through strengthening risk factor management and expanding ESP', but that measure alone is insufficient to address the current increase in NCDs-related deaths. Therefore, the 5th HPNSP will adopt a Life Cycle Approach to reduce the risk of NCDs by expanding awareness-raising, prevention, treatment, and rehabilitation services, and by integrating NCDs control services into primary facilities in both rural and urban areas. The Life Cycle Approach includes nutritional interventions dating back to infancy, childhood, and adolescence, recognizing that NCDs originate early in life.

[83] MoHFW, The 5th HPNSP PIP, Volume-I
[84] MoHFW, The 5th HPNSP PIP, Volume-I, p64
[85] WHO, Noncommunicable Diseases Progress Monitor 2022

And, it is noted that "it is necessary to make provisions of adequate drugs, diagnostics, logistics, and devices at all facilities while strengthening secondary, tertiary, and specialized facilities for NCD care, with a strong data system based on surveillance and continuum of care"[86]. Furthermore, the NCDC program has developed a multi-sectoral action plan to address modifiable behavioral risk factors, namely: tobacco use, physical inactivity, unhealthy diet, and harmful alcohol consumption, under which the National Coordinating Committee has been established. As possible government measurements, regulations and taxation regarding tobacco and junk food (food with excessive salt and sugar content) are described in the 5th HPNSP.

In addition, an analysis has been conducted for each disease category in the 5th HPNSP, as summarized in the table below.

Table 5-4: Analysis of the Current Situation in Each Disease Category

Category	Key Description	Statistics Related to Cause of Death
Cardiovascular Diseases (CVDs)	- CVDs pose a significant health burden in Bangladesh with leading cause of mortality and morbidity in the country. - There are significant disparities in the (health) burden of cardiovascular diseases between rural and urban areas in Bangladesh. - According to National STEPS survey 2018, some 15.5% of Bangladeshis, aged 40-69 years, are at risk of cardiovascular diseases.	Death due to Stroke: 80.2 (persons) /100,000 population (WHO data, 2021) Death due to Ischemic Heart Disease: 58.5/100,000 population (WHO data, 2021)
Cancer	- Practitioners suggest there could be more than 14 to 15 lakh cancer patients in the country and around two lakh new patients are diagnosed with cancer every year - Out of 36 government medical college hospitals, only 14 have oncology departments which are also understaffed and under-equipped - The public health approach i.e., prevention, early detection, and treatment need to be prioritized for managing cancer	Death due to Cancer: 108,137 persons in total. (WHO Cancer Country Profile, 2020)
Diabetes Mellitus	- According to International Diabetes Federation (IDF), around 12.5% of the adult population have diabetes mellitus, which is around 8.4 million, and projected to be double, i.e., 15 million by 2045 - The majority of diabetes cases in Bangladesh are type 2 diabetes, which is strongly associated with lifestyle factors, including physical inactivity and unhealthy eating habits.	Death due to Diabetes: 18.8/100,000 population (WHO data, 2021)

[86] MoHFW, The 5th HPNSP PIP, Volume-I, p65

COPD	- The prevalence in population of 40 years and above was found to be 21.58% with a total of 60,42,400 people. - In general, males suffer more than females (62.47% vs. 37.26%). prevalence in urban areas (61.52%) is higher than that of rural areas (38.48%) - Access to appropriate diagnosis, treatment, and management of COPD is also limited, particularly in rural areas, leading to underdiagnosis and undertreatment of the condition.	Death due to COPD: 30.6/100,000 population (WHO Cancer Country Profile, 2021)
Chronic Kidney Diseases (CKD)	- Access to specialized kidney care, including early diagnosis, treatment, and renal replacement therapy, is limited, particularly in remote and underserved areas.	Death due to Kidney Disease: 28,017 persons in total (Bangladesh National Bureau of Statistics, 2020).
Other NCDs	- Drowning is one of the most important causes of under-five mortality of children in Bangladesh. The NCDC program will develop Ddrowning prevention strategy - For other chronic diseases, (omission) management activities will be properly budgeted and will be addressed adequately by the NCDC OP.	Death due to Traffic Accident: 18.6/100,000 population (WHO data, 2021)
Mental Health	- According to the National Mental Health Survey 2019, about 17% of the adult population suffers from mental illness. - The 5th HPNSP will integrate mental health with provisions of screening, identification and counselling of priority mental health conditions at the PHC facilities as well as strengthening district hospitals or above.	Death due to Suicide: 3.68［2.26-5.72］/100,000 population (WHO data, 2019)

Source: Created by the Survey Team based on the MoHFW and other materials[87]

5.3 Information on Policy and Operation of Community Clinic Management—The Community Clinic Health Care Trust Act

CCs were reintroduced in 2009 by the Government of the People's Republic of Bangladesh. Under the national project called 'Revitalization of Community Health Care Initiatives in Bangladesh (RCHCIB)', the aim was to establish 18,000 CCs, which have since been developed. Currently, 10,723 CCs have been established to provide free health and family planning services to the rural population[88].

[87] The 'Key Descriptions' in the table are taken from the 5th HPNSP PIP, Volume-I in its original form. Each figure in the Key Descriptions is often taken from other sources (e.g., National STEPS Survey 2018 and National Mental Health Survey 2019). In addition, the 'statistics related to cause of death' in the tables are from WHO data Bangladesh (accessed on 1 April 2025), WHO Cancer Country Profile 2020 and the report of the National Bureau of Statistics of Bangladesh, each of which is presented in the table.

[88] Sarowat Hossain et al., "Services Provided Through Community Clinic: Access and Utilization by Rural People", 2022

		
Photo 1: Community Clinic in Narsingdi District	Photo 2: Community Clinic in Cumilla	Photo 3: Waiting area inside of Photo 2 (Awareness-raising also take place here)

Photo: Taken by the Survey Team

The regulations regarding CC operations are consolidated in the Community Clinic Health Care Trust Act, enacted in 2018 and enforced in 2021. The Trust Act is intended to establish PHC services as the gateway to healthcare at the community level and contains provisions that form the foundation of primary health care in Bangladesh. It is stated that "the Trust shall be a body corporate having perpetual succession and a common seal, with power to acquire, hold and dispose of property, both movable and immovable, and shall by the said name sue and be sued" (Trust Act, Article 3). The goals and objectives of the Trust are outlined in the following points (Trust Act, Article 7):

(a) To ensure the participation of people in activities related to the provision of integrated primary health care services to the rural populations;

(b) To provide integrated primary health care services to the rural populations;

(c) To secure necessary social support, collect property or donations from individuals or organizations, and ensure their proper utilization for the delivery of integrated primary health care services; and

(d) To establish an effective referral method from the CCs to the Union Health Sub-centers, Upazila Health Complex, district-level hospitals, specialized hospitals, and medical colleges and hospitals.

As stated in the previous section, PHC is highlighted in the NCDC-OP. Therefore, all of the above objectives are relevant to NCDs control—particularly (d) which concerns the establishment of an effective referral system is significantly important. This point is further discussed in detail in Section 7 of this chapter.

Additionally, the Act specifies that: "The general direction and administration of the affairs of the Trust shall vest in the Board of Trustees, and the Board of Trustees may exercise all powers and do all acts and things which may be exercised and done by the Trust" (Trust Act, Article 6). The composition of the Trust Committee is defined in the table below.

Table 5-5: Constitution of the Board of Trustees

Membership Requirements	Position
(a) Renowned philanthropist to be nominated by the Prime Minister	Chairman
(b) Person prominent in the medical field to be nominated by the Prime Minister	Vice-Chairman
(c) The Secretary, Health Services Division (or Additional Secretary of that Division nominated by the Secretary)	Member
(d) The Secretary, Health Education and Family Welfare Division (or Additional Secretary of that Division nominated by the Secretary)	Member
(e) The Secretary, Finance Division (or Additional Secretary of that Division nominated by the Secretary)	Member
(f) The Secretary, Planning Division or (Additional Secretary of that Division nominated by the Secretary)	Member
(g) The Director General, the Directorate General of Health Services	Member
(h) The Director General, the Directorate General of Family Planning	Member
(i) The Managing Director, Essential Drugs Company Limited	Member
(j) The President, Federation of Bangladesh Chambers of Commerce and Industries	Member
(k) The Chairman, Bangladesh Association of Pharmaceutical Industries	Member
(l) 3 prominent persons nominated by the Government (at least 1 of whom shall be a female physician)	Member
(m) The Managing Director of the Trust	Member-Secretary

Source: Created by the Survey Team based on the Trust Act[89]

According to the membership requirements outline above, the Chairman and the Vice-Chairman are appointees by the Prime Minister, while the other members are mainly MOHFW executive officials though not limited to government officials, In addition, an Advisory Council, established under Article 8 of the Trust Act, provides guidance and advice to the Board of Trustees. This council includes key figures from the central government, such as the Prime Minister; the Minister and Deputy Minister of MOHFW; the Minister or Deputy Minister of from both the Ministry of Finance and the Ministry of Planning. These provisions indicate that the Trust is principally governed by central government officials—particularly MoHFWs—who are responsible for policymaking and oversight of Community Clinic operations.

Furthermore, the Managing Director of the EDCL and the President of the Bangladesh Association of Pharmaceutical Industries are also members of the Board of Trustees, thus persons of pharmaceutical industry are involved.

5.4 Information Gathering and Analysis of Initiatives in the Field of Health Insurance (Mutual Assistance)

In 2016, the Government of Bangladesh introduced the Shasthyo Surokhsha Karmasuchi (SSK), a public health insurance scheme, on a trial basis. The primary aim of the scheme is to enhance access to health services

[89] The Trust Act Article 9

impoverished population and to reduce their financial burden. The intial pilot was conducted in Kalihati Upazila in Tangail District, and subsequently, has been expanded to include Modhupur and Ghatail Upazilas.

Table 5-6: Outline of SSK

The insured	The main target is households below the poverty line (BPL), and households where the head of the household is a day laborer, does not own land, or does not have a regular source of income.
Contribution	The government will cover the insurance premium of BDT 1,000 (about USD 12) per household per year, and will cover medical expenses up to BDT 50,000 (about USD 600) per household per year.
Benefits	It provides free hospitalization services for 78 different diseases, and also supports referrals to district hospitals and transportation as needed.
Number of the insured	According to 2018 data, there are approximately 96,432 BPL households registered with SSK, which is thought to be around 400,000.[90]
Plan of expansion	According to HEU, they hope to increase the number of subscribers by around 1.5 million over the next few years.[91]。

Sources: Created by the Survey Team based on the MoHFW materials[92]

(1) Current Situation and Challenges

The introduction of the SSK has reportedly led to a reduction in out-of-pocket medical expenses for poor households in the target areas and has contributed to the promoted utilization of health services. According to some studies, SSK subscribers have 33% lower out-of-pocket expenditures for medical care compared with non-subscribers and face a 30% lower risk of financial hardship due to medical expenses.[93]

However, the subscription rate for the SSK scheme remains low, and among those subscribed, only around 8% actively utilize the system. Contributing factors include lack of awareness of the system and a misalignment between the benefits offered and the actual needs of subscribers. In particular, it has been pointed out that low-income individuals may have difficulty understanding the concept of insurance, as they have been provided with free medical services in the past. In addition, improvements to the scheme are necessary, as further financial resources will be needed to ensure its sustainability and enable nationwide expansion of SSK.

5.5 Collection and Analysis of Information on Measures Addressing Population Aging and Associated Disabilities and Long-term Care Needs

As of 2024, Bangladesh has a population of approximately 170 million. The aging rate—defined as the population aged 60 years and over—was estimated at 8% in 2023 and is expected to rise to around 22% by 2050. This demographic shift is primarily attributed to declining birth rates and increased average life expectancy resulting from improvements in healthcare services (MoHFW). Given the inevitability of population aging, there is a

[90] https://pmc.ncbi.nlm.nih.gov/articles/PMC9270808/?utm_source=chatgpt.com （accessed on 18 February 2025）
[91] Information obtained by interview to HEU
[92] MoHFW, The 5th HPNSP PIP
[93] https://pmc.ncbi.nlm.nih.gov/articles/PMC9270808/?utm_source=chatgpt.com （accessed on 18 February 2025）

pressing need to build a comprehensive social support system that addresses the care of the senior citizens, particularly those with disabilities.

Overview of Laws, Policies, and Programs Related to the Welfare of the Senior Citizens

The Government of Bangladesh has been anticipating the aging of the population since the 2010s through the formulation of relevant policies for the welfare of the senior citizens. One key initiative is the National Policy on Older Persons (2013), which outlines the basic welfare policies for senior citizens (JICA , 2024) [94]. In 2015, the government established the National Social Security Strategy (NSSS), setting the overall direction for the social security system, including income compensation for the senior citizens. Within the NSS, there is an emphasis on expanding the Old Age Allowance, a tax-financed program; however, concerns remain regarding the level of benefits and the program's sustainability. In 2023, the Universal Pension Management Act (2023) was enacted, introducing the Universal Pension Scheme (UPS).

Table 5-7: Characteristics of UPS

Name	Target	Premium（BDT/Month）	Characteristics 特徴
Probash	Bangladesh Living Aboard	5,000-10,000	
Progoti	Employees in Private Sector	2,000-5,000	Shared by employee and employer
Surokkha	Self-employed	1,000-5,000	
Samata	Low Income People	1,000	Shared by subscriber and the government

Source: Generated from Universal Pension Scheme Rules (2023), by the Survey Team

(1) Welfare Services for the Senior Citizens

According to the Information Collection Survey on the Social Security System conducted by JICA in 2024, social security and welfare services for the senior citizens in Bangladesh remains limited. Currently, the only government-supported facility for the senior citizens are located in Dhaka and operated by the Bangladesh Association for the Aged and Institute of Geriatric Medicine. The facility charges a monthly fee ranging from BDT 7,000 to 20,000, which includes necessary care services as well as medical services.

In addition, the Ministry of Social Welfare plans to establish and operate eight residential facilities for the senior citizens, one in each division, by the end of 2024.

For further information on welfare policies for the senior citizens under the jurisdiction of the Ministry of Social Welfare, please refer to the final report of the Information Collection Survey on the Social Security System.

(2) Measures for the Senior Citizens in HPNSP

Given this situation, the 5th HPNSP outlines specific measures to deal with the aging population in the OP, shown

[94] JICA, Information Collection Survey on Social Security System (August 2024)

in the Table 5-8 below.

Table 5-8: OPs on Measures to Address the Aging Population

OP Number	Contents
4.9 Hospital Services Management (HSM)	Component 5: Comprehensive and Innovative Care
4.10 Primary Health Care	Components 5: Healthy Aging
4.30 Maternal, Child, Adolescent and Reproductive Health (MCRAH)	Component 6: Disability and NeuroDevelopmental Disorders (NDDs) & Mental Health and Elderly people health service

Source: Created by the Survey Team based on the MoHFW materials [95]

In general, the gap between healthy life expectancy and average life expectancy represents the period of time during which people have restrictions in daily lives due to health problems. Reducing this gap will increase the healthy life expectancy of the population and decrease medical and long-term care costs.

To do this, it is necessary to take continuous measures such as (1) maintaining consistent daily eating and exercise routine, (2) managing personal health to promote good health and prevent lifestyle-related diseases, and (3) making an effort for early detection of diseases.

In Bangladesh, OP4.10 under Component 5: Healthy aging promotes activities aimed at improving senior citizens' health, and indicates the direction for preparing for a future aging and super-aging society.

5.6 Situation of Support by Donors and NGOs for NCDs Control

Funding for the health sector in Bangladesh, including NCDs control, has been provided by both each national donors and international organizations. In particular, the ADB has provided significant amounts of loan and grant aid. ADB's support focuses on cross-cutting areas such as: 1) Health services, particularly PHC, 2) Human resources development, and 3) Environmental health, climate change, and health financing. ADB does not provide specific support aligned with each OP of the MoHFW[96]. However, as a TA focused on NCDs, ADB has launched "Strengthening Integrated PHC Management of NCDs," planned from May 2023 to June 2026. This targets five DMCs with a high burden of NCDs, including Bangladesh.

This TA aligns with the ADB Strategy 2030, which identifies 'reducing the burden of NCDs in Asia and the Pacific as a key priority'. The project is expected to contribute significantly to national NCDs control strategies and health sector reform agendas through a PHC-oriented approach. The total regional budget for this project is USD 2 million, with ADB managing the grant funded by "the Japan Fund for Prosperous and Resilient Asia and the Pacific (JFPR)". The project design is shown in Table 5-9 below.

[95] MoHFW, The 5th HPNSP PIP
[96] 27 November 2024, hearing from a health specialist in ADB Bangladesh Office.

Table 5-9: Framework of Strengthening Integrated PHC Management of NCDs

Impact	Disease burden of NCDs in developing Asia reduced
Outcome	Integrated PHC-level management of NCDs in selected DMCs improved
Output 1	Knowledge and capacity on primary health care-level management of NCDs improved
Output 2	Policymakers' capacity for expanding infrastructure and services for chronic NCDs care in underserved areas increased
Output 3	Uptake of efficient and innovative technology for NCDs management increased

Source: Created by the Survey Team based on an ADB material[97]

The identified risk to achieving the above outcomes is explained that "the policy process within the Ministry of Health or its departments may take longer than expected to produce a consensus draft". This risk setting is similar to the current situation in Bangladesh due to delays in the approval of the 5th HPNSP.

5.7 JICA Support Targets within the OPs and Additional Needs, Prerequisites and Support Possibilities from the Survey

5.7.1 JICA Support Targets within the OPs

JICA's existing projects related to NCDs control within the HPNSP framework are as follows:

(1) Project for Strengthening Health Care System for Preventing NCDs (also known as SHASTO-2)

This project is the successor to the original SHASTO project. The outline of SHASTO-2 is as follows:

Table 5-10: Outline of SHASTO-2 Project

Project Title	The Project for Strengthening Health Care System for Preventing NCDs (also known asSHASTO-2)
Project Period	August 2023 – August 2028 (60 months)
Project Site	- Narsingdi District (all 6 Upazilas) - Cox's Bazar District (Only 3 Upazilas among all 8 Upazilas) - Cumilla District (all 17 Upazilas) * Dhaka City and Brahmanbaria District will be excluded.
Total Project Cost	Approx. JPY 400 million (including expart dispatch fee, equipment provision costs, subcontracting fees, expenses of training program in Japan, etc.)
Overall Goal	Quality NCDs prevention and control measures based on the NCDs Management Model are applied in the entire Bangladesh.

[97] ADB Technical Assistance Report "Strengthening Integrated Primary Health Care Management of Noncommunicable Diseases", May 2023

Project Purpose	The NCDs management model for implementing quality NCDs prevention and control measures in communities is established through activities in target areas of the Project.
Output 1	The NCDs management model for implementing quality NCDs prevention and control measures in communities is optimized.
Output 2	The quality improvement committees and the work improvement teams in District Hospitals and Upazila Health Complexes are strengthened and/or revitalized for the improvement of NCDs clinical services.
Output 3	The functions of the "Core Team" at district and Upazila level are strengthened and/or revitalised to promote community clinics (CCs)-based awareness-raising activities for the prevention of NCDs.
Output 4	An implementation framework of NCDs prevention and control measures in urban communities is validated. * Output 4 will be excluded.

Source: Survey Team based on JICA reports

＜Points of Changes＞[98]

- For Output 4 (Urban Health in Dhaka City), the Project Coordination and Implementation Committee agreed to exclude this output from the PDM to avoid duplication of activities with the WB and ADB's urban health projects. As of February 2025, however, the PDM has not yet been revised due to pending key meetings such as Joint Coordination Committee.
- Based on the needs of counterparts, Brahmanbaria District was removed from the project's target areas. Instead, full coverage of all Upazilas in Cumilla District was agreed upon. The official decision will be finalized following the PDM revision.
- The project purpose of establishing an NCDs Management Model was already achieved under the 4th HPNSP. Therefore, discussions with JICA are underway regarding the revision of the project purpose.

Despite these changes, project activities including training and equipment provision continue actively in the targeted areas.

(2) Health Services Strengthening Project

This project has been supporting NCDs control since 4th HPNSP. The outline of the project is as follows:

Table 5-11: Outline of Health Services Strengthening Project

Project Title	Health Services Strengthening Project
Project Period	June 2018 – August 2026 (extended beyond the original plan)
Project Site	Bangladesh nationwide (primary and secondary healthcare facilities)
Total Project Cost	JPY 8.285 billion (of which Yen Loan target amount: JPY 6.559 billion)

[98] A SHASTO-2 member has assisted in the preparation of this document and has confirmed this change with the project.

Project Purpose	In Bangladesh, where NCDs control and urban health are emerging as new health issues, improving the quality of healthcare services at primary and secondary healthcare facilities nationwide will contribute to the strengthening NCDs control as well as enhancing the accessibility to health service delivery for urban poor populations in Dhaka. This system development aims to contribute to the health promotion of the Bangladeshi population.
Implementation Agencies	MoHFW

Source: Survey Team based on JICA reports

Through that project, health facility renovations and equipment provision were carried out at urban health facilities, DH, UzHC, and CC nationwide. Additionally, training on the NCD management model was supported for physicians, nurses, and other healthcare professionals across the country, significantly contributing to the advancements of this area.

5.7.2 Needs and Challenges Identified by the Survey

(1) Needs and Challenges Identified by the Survey

In Bangladesh, NCDs account for 70% of deaths[99], and efforts to control NCDs have been actively promoted since the 4th HPNSP with support from various donors. JICA has also played an active role in supporting NCDs control through the Health Services Strengthening Project (Loan) and the Project for Strengthening Health Care System for Preventing NCDs (Technical Assistance).

Thess initiatives have led to the formation of a standardized NCD management model, comprehensive training for healthcare professionals, and the establishment of NCD corners in over 30 DH and 429 UzHC, as of February 2025[100].



Photo 1: Narsingdi District Sadar Hospital (There is a queue at the NCD corner on the left)



Photo 2: Automated BP monitor (left) and height and weight scales (right) at the NCD corner

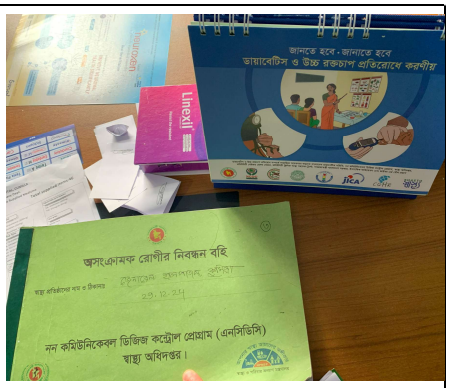


Photo 3: Flipchart and patient register used at the NCD corner

Photo: Survey Team

[99] WHO, Noncommunicable Diseases Progress Monitor 2022
[100] 13 February 2025, hearing from MoHFW NCDC-Line Director and NCDC-Deputy Program Manager.

The Survey Team held consultations with government officials and representatives from other donor persons regarding NCDs control, and conducted site visits to local health facilities to ascertain the current situation[101]. 6 district and upazila hospitals were visited, where it was confirmed that each hospital's NCD corner was equipped with basic medical devices—such as height and weight scales, blood pressure monitors, and glucometer—and was functioning to a certain extent. Trained doctors and nurses were provided full-time consultations based on standardized protocols (however, facility renovations and specialized personnel are necessary in the future).

Through interviews with MoHFW/NCDC officials and field surveys, it was confirmed that the number of patients visiting NCD corners is increasing daily, with an even higher number of potential patients. As a result, the burden on NCD corners in upazila and district hospitals is intensifying, making it increasingly difficult to deal with the visiting patients in the future[102]. Additionally, it was identified that some UzHC are lack sufficient supply of NCDs drugs and are unable to provide adequate treatment to visiting patients. Therefore, two clear needs were identified through the survey.

The 1st identified needs is to arrange the patient selection and follow-up system by 'establishing appropriate referral systems'. This would help disperse the concentration of medical resources and patients load, thereby providing services more efficiently. The 2nd identified needs is 'establishing the stable drug supply system' that can accommodate future increase in patients. These two key points are described below.

(2) Establishing Appropriate Referral Systems

The referral system currently in place for the major NCDs diseases are as follows (examples of non-critical patients who can be managed with basic medicines) [103].

The above-mentioned referral systems are currently being established and strengthened; however, three concerns

(a) Community clinics (lower primary health care facilities)—awareness raising, screening and referral of patients (to higher levels)
(b) DH and UzHC (upper primary healthcare facilities)—diagnosis of patients, prescription of drugs and counter referral (to lower levels)
(c) Community clinics (lower primary health care facilities)—follow-up of counter referral patients and refilling of drugs

have been identified. In point (a), there is a lack of awareness-raising and insufficient screening of the population. In point (b), health facilities are struggling to cope with the increasing number of patients. Lastly, in point (c),

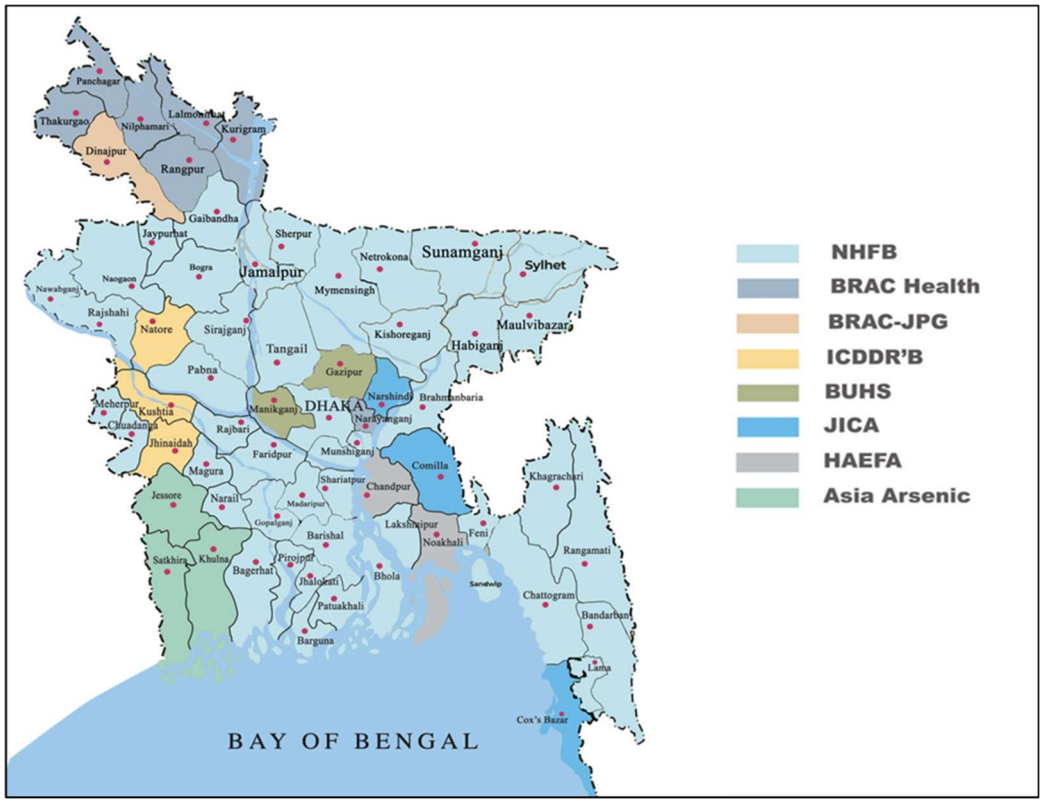
[101] The Survey Team had discussions with a number of relevant government officials such as MoHFW and EDCL, and key donors such as WHO and ADB. In addition, a survey team member (a Japanese doctor in charge of NCDs control) visited medical facilities in a total of four districts and six upazila (Sadar and Shibupur Upazila in Narsingdi District, Sadar and Titas Upazila in Cumilla District, Rupganj Upazila in Narayanganj District, Charbhadrasan Upazila in Fardipur District)

[102] A World Bank report identified the existing gaps in hypertension and diabetes, between 'the number of patients diagnosed and potential patients', 'the number of patients diagnosed and treated', and 'the number of patients treated and continuously treated', respectively. Among those, the gap between 'the number of patients diagnosed and potential patients' is largest. World Bank "Hypertension and Type-2 Diabetes in Bangladesh: Continuum of Care Assessment and Opportunities for Action" June 2019 , pp. xv-xvii

[103] Critical patients are referred to specialists in ② and further referred to tertiary-level healthcare facilities if necessary or accessible.

there are concerns about the safety of service provision by non-medical professionals, particularly regarding drug refilling. The Government also intends to actively promote PHC services. Therefore, it is necessary to consider the recruitment and training of personnel, as well as the adequacy of equipment and medicine supplies at CC and other facilities beyond DH and UzHC.

Regarding concern (a) above, under the Health Services Strengthening Project, training has been provided for Community Health Care Provider (CHCP). Regarding concern (c) above, the Chief of SHASTO-2 Project stated that, as the successor project to SHASTO-2, "it is difficult to consider continued support mainly on the current NCD corners in UzHC, given the large-scale nationwide expansion led by the National Heart Foundation Bangladesh (NHFB) and other institutions. It is needed to change the target disease or change the level of target healthcare facilities"[104]. This may be due in part to the fact that the NCDs control programme promoted by the MOHFW/NCDC designates stakeholders in each region, and JICA has been designated as the 3 districts of Narsindi, Cox's Bazar and Cumilla (see figure below).



Note: NHFB=National Heart Foundation Bangladesh; BRAC=Bangladesh Rural Advancement Committee; BRAC-JPG=BRAC James P Grant School of Public Health; ICDDR'B=International Centre for Diarrhoeal Disease Research, Bangladesh; BUHS=Bangladesh University of Health Sciences; HAEFA=Health and Education for All

Source: National Heart Foundation of Bangladesh、Bangladesh Hypertension Control Initiative

Figure 5-1: Area Coverage by NCDC with All Stakeholders

[104] 17 February 2025, in consultation with the Chief of SHASTO-2 and a member of this Survey team (in charge of NCDs control).

On the other hand, primary healthcare facilities are unable to cope with the increasing number of patients, resulting in patient congestion at higher-level hospitals. Additionally, a high number of patients discontinue treatment after visiting the NCD corners, and adequate follow-up is often lacking[105].

For further support, it is therefore necessary to establish a more efficient NCDs control system by utilizing union-level medical facilities—located between UzHCs and CCs—which are currently not covered in the existing NCDs control system. The same proposal was also confirmed favorably by MoHFW officials[106].

At present, at the union level, medical facilities managed by the DGHS include union sub-centers (USC) and similar Rural Dispensary (RD), totaling 1,196 facilities nationwide—more than double the number of DH and UzHC (see table below). In addition to these, there are 3,173 UHFWC nationwide. However, it considered challenging to conduct NCDs control at UHFWC under the management of DGFP, MoHFW, due to their primary focus on maternal and child health services, such as antenatal check-ups, deliveries, and vaccinations[107].

Table 5-1: Distribution of Health Facilities in Bangladesh

Division	CC	USC/RD	UHFWC	UHC	MCWC	DH	NGO clinic /hospital	PH	Total
Barishal	1,131	48	226	34	10	6	12	96	1,563
Chattogram	2,469	238	654	87	18	11	103	518	4,098
Dhaka	2,650	248	603	77	16	14	131	735	4,474
Khulna	1,706	113	455	51	18	10	46	562	2,961
Mymensingh	1,245	93	229	31	6	3	16	91	1,714
Rajshahi	1,976	194	389	59	16	7	49	322	3,012
Rangpur	1,892	189	410	49	12	7	29	136	2,724
Sylhet	933	73	207	31	6	4	22	121	1,397
Bangladesh	**14,002**	**1,196**	**3,173**	**419**	**102**	**62**	**408**	**2,581**	**21,943**

DH = district hospital, MCWC = mother and child welfare center, UHC = upazila health complex, UHFWC = union health and family welfare center, USC/RD = union subcenter/rural dispensary, CC = community clinic, NGO = nongovernmental organization, PH = private hospital

Source: National Institute of Population Research and Training (NIPORT) and MoHFW, "Bangladesh Health Facility Survey 2022 Final Report"

The local consultant of the Survey Team visited two USC in Narsingdi District[108]. It was confirmed that each USC is staffed with a Sub Assistant Community Medical Officer (SACMO) and a pharmacist, who primarily deal with cases such as fever, diarrhea, and skin diseases. And the SACMO had attended NCDs training. In addition, although USC usually have the post of doctor who makes regular rounds from UzHC to the UHC assigned, no doctor visits were made at the two USC above.

[105] World Bank "Hypertension and Type-2 Diabetes in Bangladesh: Continuum of Care Assessment and Opportunities for Action", pp.7-20

[106] 19 February 2025, in consultation with the UzHC-Line Director and NCDC-Deputy Line Director of MoHFW. However, the former responded that the USC has old facilities and many of them are not functioning.

[107] 23 March 2025, a member of our local consultant visited to Meher-Para UHFWC in Sadar District, Narshingdhi District, where it was confirmed that NCD patients would be immediately referred to DH.

[108] 23 March 2025, field visit to Bhatpara USC and Narsingdhi Sadar USC, Sadar District, Narsingdi District.

		
Photo 1: Bhatpara USC in Narsingdi District	Photo 2: Patients lined up in the examination room inside Photo 1.	Photo 3: Narsingdi Sadar USC in Norsingdi District.

Photo: Survey Team

However, the number of NCDs patients is significantly lower than at UzHC, ranging from a few dozen per month at one facility to 150-200 per month at another. Additionally, only one type of anti-hypertensive and one type of anti-diabetic drugs are supplied, with shortage of these medications for nearly a year.

This situation may be attributed to the previous administration's focus on CC and the lack of attention given to USC. However, USCs are managed by UzHC and staffed with medical personnel capable of safely providing services such as patient follow-up and drug refilling. Therefore, utilizing USCs could address the concern related to point (c) above.

In addition, doctors could diagnose new patients by making regular rounds as per their placement (or well-trained SACMO could diagnose new patients). Therefore, it is considered that the concentration of patients in DH and UzHC could be avoided by setting up a system by ministerial ordinance, etc., providing training for USC medical personnel (doctors, SACMO, pharmacists, etc.) on NCDs control, and including USC for NCDs control.

Moreover, more specialized services can be provided by medical personnel in USC compared to CC. Here, the scope of work of para medical personnel (CHCP, SACMO, pharmacists, nurses, etc.) in NCDs control needs to be re-examined, and the facilities that respond to patients differ depending on patients' condition (serious symptoms or adverse reactions), and the criteria for referral systems need to be reviewed again. The following is an example of a proposal.

- Potential patients—who have been screened by CHCP in CC—visit USC, where new patients are diagnosed by a doctor or a trained SACMO. Lifestyle modification guidance and new prescriptions are then provided depending on the patient's condition. However, patients who require additional tests or specialist diagnosis at that point are referred to UzHC (or higher tertiary care).
- USC pharmacists coordinate dose of drugs and additional prescriptions in coordination with DH and UzHC.
- Regarding follow-up after a visit to the NCD corner in DH and UzHC (or the same corner of the USC), the USC is responsible for more patients, and lifestyle modification guidance and refilling of drugs are carried out more safely and efficiently.

- DH, UzHC and USC can share patient data to make it easier to check patients' condition and their prescription progress.

Nevertheless, according to the MoHFW, there are a certain number of USCs that are not functioning, especially in rural areas, and a survey of the current situation in the target area should be conducted first. Then, it is important to establish the system for efficient service provision by distributing medical resources to the right places, with the aim of establishing an appropriate referral system for each of the 'DH and UzHC (upper primary healthcare facilities), CC (lower primary healthcare facilities) and USC in between' based on local realities.

To this end, it is important to 1) develop MoHFW ministerial regulations, 2) understand the actual situation of health facilities within the district/upazila and improve administrative capacity, and 3) properly manage the MoHFW budget and local development funds.

Although this issue requires more detailed research, JICA will pilot support for the establishment of the referral system, including USC in Narshindi district—which JICA has supported for many years—with the aim of establishing a model province for a referral system. Then, when the results are evident, the model will be considered for using in other regions, after determining the situation of MoHFWs and patients.

(3) Establishing Stable Drug Supply Systems

The above-identified shortages of NCDs drugs in some UzHC and USC identified the high needs due to the amount of an increasing number of patients. The National Heart Foundation Bangladesh (NHFB) estimates that by 2028, the number of patients with hypertension will reach 3 million, and those with diabetes 1.2 million, requiring more than 1.7 billion tablets of the five basic NCDs drugs alone[109]. In this context, managing hypertension and diabetes with drugs refers to preventing serious complications, such as CVD and CKD, from hypertension and diabetes through medication. From a public health perspective, managing hypertension and diabetes with drugs constitutes secondary prevention (post-onset measures). However, it also includes an element of pre-onset prevention against serious complications[110].

While primary prevention of some infectious diseases is possible through effective vaccination, no vaccines exist for NCDs like hypertension and diabetes. Even in developed countries, the usual response after disease onset usually includes ongoing management through medication[111].

Several complicated factors contribute to the shortage of essential drugs in health facilities in Bangladesh. The following points, although simplified, describes the key challenges related to the supply of drugs identified in this Survey.

[109] National Heart Foundation of Bangladesh, "Bangladesh Hypertension Control Initiative: Drug Forecasting Tool". The five basic drugs noted in this report are Amlodipine, Losartan, Hydrochlorothiazide, Metformin and Atorvastatin.

[110] From this perspective, it is 'primary prevention (measures taken before the onset of disease)', while the use of medicines is usually classified as secondary.

[111] Improving lifestyle customs such as diet and exercise is the primary prevention of hypertension and diabetes. However, it is clinically less likely that patients who once develop hypertension or diabetes can be cured by lifestyle modification alone, without the use of pharmaceuticals. Compared with infectious diseases, hypertension and diabetes deteriorate slowly and progress slowly to complications. Therefore, to manage the condition and momentum of disease with drugs is important.

<Budget issues>

The budget of MoHFW-NCDC under the 5th HPNSP for the procurement of drugs for NCD corners in UzHC is allocated at a total of BDT 9 billion for five years (multi-funded by the GoB and donors, including Japan) [112]. In addition, the MoHFW-CBHC is responsible for supplying drugs to CCs, with a separate five-year budget of BDT 25.5 billion, including non-NCDs drugs. However, as of February 2025, due to delays in the approval of 5th HPNSP, these budgets have not been yet executed—currently the critical issue affecting the supply of drugs.

<Procurement issues>

Once the budget is approved, NCDs drugs for DHs and UzHCs are ordered by the NCDC from EDCL. After production, the drugs are then transported from EDCL to the respective DHs and UzHCs usually through three times per year of that process. The supply to USCs is conducted by each UzHC. In addition, 20-30% of total production is stored at EDCL to meet additional demand. For both regular and additional demand, each hospital reports data on the quantity required to MoHFW; however, there is currently no digital system or dedicated staffing structure for immediate confirmation by the MoHFW[113]. Furthermore, as noted above, the supply of drugs (including NCDs drugs) to CCs is the managed by MoHFW/CBHC, while the supply of non-NCDs drugs to DHs and UzHCs falls under the responsibility of MoHFW/UzHC. Therefore, further discussions are needed to establish a unified management within MoHFW on the procurement of drugs.

<Institutional issues>

According to the National Drug Policy enacted in 1982, 70% of drugs are supplied by the Essential Drug Company Limited (EDCL), 25% by the Central Medical Stores Depot (CMSD) and the remaining 5% through local purchase114. This policy continues to be strictly upheld, resulting in almost all NCDs drugs in public healthcare facilities being procured from the EDCL, which is fully government-owned. Since the CMSD only handles medicines not produced by EDCL, the most pressing short- to medium-term issue of drug shortages is the need to review this policy. The National Heart Foundation calculates the price gap between NCDs drugs from EDCL and those produced in India is two to three times higher. If public healthcare facilities were able to purchase NCDs drugs from both domestic and international markets—rather than sticking to the policy—a more affordable and stable drug supply could be achieved. As the National Drug Policy is currently subjected for discussion among MoHFW and relevant experts, the progress of these deliberations should be kept closely monitored.

<Production and distribution issues>

EDCL has three plants in Bangladesh, with an annual production capacity of 4.95 billion tablets, covering both NCDs and non-NCDs drugs (about 50 different tablets in total) [115]. This production capacity includes a significant number of non-NCDs drugs. Thus, further capacity expansion of EDCL may be necessary or discussions to include

[112] MoHFW, 5th HPNSP PIP Volume-I

[113] The MIS-DGHS medical information system is 'the Medical Record System (OpenMRS+)', but it is not widespread throughout the country (see Chapter 8 for details). In addition, only a few officials of MoHHW NCDC and CBHC are responsible for drug procurement in their programmes.

[114] WHO, Medicines in Health Care Delivery Bangladesh, 2014

[115] 16 February 2025, in consultation with EDCL Managing Director and others and subsequent provision of documents.

the institutional reforms mentioned above are necessary[116]. After budget approval, the usual process—from MoHFW placing orders with EDCL for production and distribution of NCDs drugs to health facilities. EDCL currently operates six vans and rent further vehicles, when necessary. However, it needs to supply nearly 500 DH and UzHC over the country including non-NCDs drugs, resulting in a distribution time of several months.

Therefore, more detailed research is needed to identify the support that JICA can provide regarding drug supply. In addition, political aspects be taken into account, including a review of the current system. Nevertheless, a significant number of patients have either not received NCDs drugs or are forced to pay out-of-pocket to purchase them, making the supply of medicines an URGENT issue. One idea is to assign a long-term expert advisor to the MoHFW, with the review of the drug supply system as one of their main tasks. That is described in the annex of this survey.

(4) Considerations on the Direction of Support

This section also examines the potential for other JICA assistance in NCDs control. First, the Health Services Strengthening Project (Loan) has contributed significantly to the establishment of an NCD management model by providing facility renovations, equipment provision, and training for personnel at the national level.

It is worthwhile to continue financial assistance to further support NCDs control continuously in the future. However, some changes should be considered—such as renovating lower-level health facilities (e.g., USC and CC), enabling medical personnel from these facilities for training, providing HbA1c measuring equipment due to the nationwide shortage[117], and focusing more on smoking cessation measures.

It is also important to educate and raise awareness about lifestyle-related diseases through school health programs from an early age, given the emphasis on a life-cycle approach in the NCDC-OP. The NCDC-OP also includes orientation training for teachers on NCDs as one of its activities. In addition, school health is a component of the PHC-OP. Support can also be provided through consultation and training to lower-level health facilities using telemedicine technology[118].

NCDs control—especially lifestyle-related diseases such as hypertension and diabetes—is a global challenge that developed countries also face. Unlike some infectious disease, there are no specific remedies such as vaccines or antibiotics, making NCDs control a tough issue that should be addressed by mobilizing all available national medical resources.

It is considered that the goal of NCDs control is to "manage the disease condition or disease momentum with lifestyle modifications and medicines to prevent the development of serious complications and ultimately extend

[116] As the stable supply of medicines is an URGENT issue, measures to support the expansion of EDCL production capacity can be considered if "the institutional reforms takes time, or the current system is expected to be maintained".
[117] From the SHASTO-2 baseline survey.
[118] A study by the MoHFW/CBHC founds that telemedicine was useful (hearing from CBHC Programme Manager, 6 February 2025). In addition, in the health office in Sadar Upazila in Cumilla District, officials (and also doctors) in the Upazila Health Office actually provide consultation to CHCP in CC remotely(hearing from the official, 11 February 2025).

healthy life expectancy", which often requires continuous intervention.

On the other hand, in Japan, awareness of some patients is high, with blood pressure monitors and daily measurements. The Ministry of Health, Labour and Welfare in Japan actively promotes measures such as specific health check-ups and health guidance. Together with the high standard of medical care at primary and tertiary healthcare facilities, these efforts have resulted in certain achievements in NCDs control.

Therefore, in NCDs control in Bangladesh, it is important to focus on raising patients' awareness and to ensure that the direction of strengthening the system of health service provision is shared by both government and patients, then it is disseminated as a society-wide initiative.

Chapter 6 Current State Analysis on Nursing Education and Nursing Services in the 5th HPNSP

In the PIP of the 5th HPNSP, the following needs were identified: establishing a system for continuing professional development (CPD) linked to career development, strengthening the expertise of nurses in specialized areas, and developing specialized educational programs in specific fields. These initiatives aims to improve the quality of nursing services and nursing education. This chapter analyzes the OPs of nursing education and nursing services under the 5th HPNSP, examines the current status of nursing education and services in Bangladesh, reviews the technical assistance provided by JICA in this area, and explore future directions for support.

6.1 Positioning, Issues, and Needs for Nursing Education and Nursing Services in the 5th HPNSP

In the PIP of the 5th HPNSP, the OP for Nursing Services and Nursing Education were drafted as two separate OPs: Nursing and Midwifery Services (NMS) and Nursing and Midwifery Education (NME)[119]. The implementing agency for both OPs is the DGNM. Until the 4th HPNSP, Nursing Services and Education were managed under a single OP—Nursing and Midwifery Education and Services (NMES). However, it was recognized that education and services should be considered separately to ensure the quality of each element. Taking this into consideration, two separate OPs were prepared for the 5th HPNSP.

Both the NMS and NME OPs include the need for the development of career paths, the establishment of a CPD framework, the strengthening of monitoring systems by DGNM, and the enhancement of nursing services and education in specialized areas. Each OP is described below.

(1) Nursing and Midwifery Services (NMS) OP: Main Components, Objectives, and Activities (PIP 4.23)

In the NMS OP, challenges affecting the quality of nursing services include inadequate monitoring systems, lack of effective supervision mechanisms and accountability, lack of professionalism, and insufficient CPD mechanisms, policies, and guidelines. Additionally, issues such as the absence of a decent career path, limited career opportunities, lack of an approved organogram, and a centralized, poorly administrative structure have been recognized[120].

To address these challenges, the NMS OP has set seven specific objectives, listed below, to achieve the general objective: to provide support for functional and quality improvement of nursing and midwifery services in Bangladesh.

i. To improve functional and regulatory mechanisms of nursing and midwifery services through the development of policy guidelines, recruitment rules, career paths, and professional sensitization.

[119] According to the interview with DGNM on 30 January 2025, the component for "Nursing and Midwifery Research and Development" (Component 4. of NMS OP, Component 3. of NME OP) was deleted from both OPs during the review process within MoHFW. The other components are expected to be approved

[120] MoHFW, 5th HPNSP, Program Implementation Plan (PIP), Volume-1, p397

ii. To develop the capacity of nurses and midwives in specific specialized fields, including institutional and professional leadership and management.
iii. To support continuous quality improvement activities for nursing and midwifery services at all levels of public health services.
iv. To advance the nursing and midwifery research, including institutionalization of evidence-based nursing and midwifery care. [121]
v. To advance the digitalized management information and communication system (MICS) in nursing and midwifery services.
vi. To strengthen facility readiness through supply and maintenance of the logistic, equipment, furniture, and other necessary materials imperative to the quality of nursing and midwifery services.
vii. To strengthen the mechanisms of coordination, supervision, monitoring, and evaluation systems.

To achieve these objectives, seven components were formulated.

Table 6-1: Components of the NMS OP

Name of Component	Activity
Component 1. Policy, Planning and Human Resource Management	Review, update, and approve the recruitment rules, organogram, and job descriptions; formulate career paths, develop SOPs (Standard Operating Procedures) and tools to improve nursing and midwifery administration and services; development of human resource management systems; improvement of working environment; creation of new positions and posts for nurses and midwives; deploy nurses with proper designation and service provision in private sector health facilities; support nursing and midwifery managers in health facilities; establishment of training system for promoting in-service training and clinical practice etc.
Component 2. Quality Improvement of Nursing and Midwifery Services	Capacity building training for nursing and midwifery managers (leadership, management, supervision, evidence-based clinical competencies); establishment of quality improvement cells and provide training in quality improvement approaches (5S, PDCA/SA, CQI, TQM); training focusing on the demand of the international job market (English, skills); support for national and international conferences, exposure visits, exchange programs for nurses and midwives administrative personnel; provide training for nurses and midwives (orientation, refresher, in-service training); provide specialized training (respiratory, dialysis, pediatric, newborn care, oncology and palliative care, psychiatric, cardiac, geriatric, intensive care, infection control, emergency and critical care etc.); skills development training (medical waste management, NCDs, triage, medication errors, etc.); establish supervised clinical practice of nursing students through developing Clinical Nurse Teachers (CNT) training; establishment of CPD framework and training, etc.
Component 3. UHC, PHC and Maternal and Child Health	Specialized training on different specialties in the area of UHC, PH, and maternal and child health (neonatal, geriatric, community outreach programs, cervical cancer, obstetric fistula, etc.); review of staffing structures to ensure appropriate skill mix in health facilities; develop a pilot program for community and school health nurses, etc.
Component 4. Nursing and Midwifery Research and Development (Deleted)	
Component 5. Management Information System (MIS) and	Capacity development training on information technology (MIS, data processing, digital documentation, computer technology); develop transfer and training management

[121] This objective was initially included in the 5th HPNSP, PIP, Volume-1 draft, but was deleted during the MoHFW review process and incorporated into the "Planning, Monitoring, Research, Training and Development (PMRTD)" OP since health and medical research is a crosscutting area.

Advanced Information Technology	software linked with DGNM's MIS; Linkage MIS system of DGNM with DGHS and relevant ministry MIS system, etc.
Component 6. Logistic Supply and Maintenance	Procurement, repair and maintenance of vehicles, furniture, office equipment, communication, books, stationery and other consumables for DGNM, divisional, district, upazila and union level nursing and midwifery offices.
Component 7. Coordination, supervision, monitoring, and evaluation	Establish a monitoring cell in DGNM; strengthening intra and inter organizational, professional collaboration, coordination, and communication network; strengthening the clinical monitoring and supervision of nursing services (including performance-based evaluation); develop, introduce and implement the SOP and nursing care process in all health facilities; provision for technical support and appointment of consultants etc.

Source: Created by the Survey Team based on MoHFW document[122]

The following indicators are formulated in the NMS OP.

Table 6-2: Indicators of the NMS OP Related to Nursing Services

OP Level Indicators	Baseline Year (June 2023)	Target	
		Mid Target (By June 2027)	End Target (By June 2029)
Number of newly recruited nurses received orientation training[123]	19,500	5,000	7,000
Number of specialized trainings completed on respiratory, dialysis, pediatric, SCANU, oncology and palliative, psychiatric, cardiac, geriatric, intensive care & coronary care, Infection Prevention & Control (IPC), Emergency & Critical care, etc. [124]	7,210	6,000	10,000
Number of facilities develop, introduce and implement SOP for nursing care.	0	200	500

Source: Created by the Survey Team based on MoHFW document[125]

(2) Nursing Midwifery Education (NME) OP: Main Components, Objectives, and Activities (PIP 4.34)

In the NME OP, issues such as the lack of institutions and specialized courses to train nursing faculty, unclear recruitment policies for teachers, appropriate monitoring systems, insufficient career development opportunities, poor quality control, weak administrative structure, and lack of opportunities for research and development activities have been identified as challenges that affect the quality of nursing education.

In response to these challenges, the NME OP sets six specific objectives to achieve the general objective: to strengthen both the quality and quantity of the nursing and midwifery workforce through proper education, training, and research.

[122] MoHFW, 5th HPNSP, Program Implementation Plan (PIP), Volume-1, p. 402-406. Component 4 (Nursing and Midwifery Research and Development) was deleted as explained above.

[123] The baseline number is the cumulated number up to June 2023. The target indicator is the target number of newly trained nurses in the 5th HPNSP.

[124] The baseline number is the cumulated number up to June 2023. The target indicator is the target number of trainings conducted in the 5th HPNSP.

[125] MoHFW, 5th HPNSP, Program Implementation Plan (PIP), Volume-1, p. 400-401. The NMS OP has six indicators, but only indicators related to nursing services are excerpted.

i. To improve the production, standards, and regulatory mechanisms of nursing and midwifery education, including the formulation of policies, guidelines, recruitment rules, career paths, and accreditation process.
ii. To enhance the capacity of the nursing and midwifery faculty and teachers for the proper implementation of the curriculum and syllabus, including institutional management capacity improvement.
iii. To improve the capacity of nursing and midwifery faculty and teachers in conducting research and applying evidence-based approaches in education. [126]
iv. To develop IT skills and computer literacy among faculty and teachers for effective utilization of nursing and midwifery informatics.
v. To improve the quality of nursing and midwifery education through the proper supply and maintenance of logistics, equipment, furniture, and other necessary materials for laboratories, library, and classrooms.
vi. To establish a system for continuous supervision, monitoring, evaluation, professional networking, and coordination.

Six components have been formulated to achieve these objectives.

Table 6-3: Components of the NME OP

Name of Component	Activity
Component 1. Policy, Planning and Human Resource Management	Develop a long-term nursing and midwifery production and deployment plan; review and update the deployment policy and recruitment rules; develop organogram and career paths for nursing and midwifery faculties; update and develop curriculum, policy guidelines, SOPs, care plan; incorporate quality improvement related topics in the existing curriculum; provide support in selecting resource personnel for training programs of nurses and faculty; promote institutional accreditation in both public and private educational institutions; provide support to BNMC and DGNM to monitor and ensure educational standards in public and private institutions; strengthen and update the licensing and re-licensing system to improve the quality of nursing and midwifery education and services through CPD; advocacy and support for the development of community and school-based nursing and midwifery education, etc.
Component 2. Capacity and Process Development for Quality of Nursing and Midwifery Education	Capacity development training for institutional heads, faculties, and related officials (curriculum, syllabus, lesson plans, leadership, management, finance, etc.); develop subject-based teaching modules; provide subject-based training for teachers; support for quality improvement in private sector; support for diploma, masters, and PhD degree, introduce post-graduate diploma programs on education and service specialties (education methodology, research and development, ICU, renal, cardiac, respiratory, orthopedic, pediatric, oncology and palliative care, mental health and psychiatry, geriatric education, administration and management, etc.); promote the system for CPD programs and activities for faculty; review and update regulatory standards for educational institutions; formation of Quality Improvement Committee linked with DGNM, educational institutions and health facilities: establish Nursing Teachers Training Center; develop Master Trainers (MT) for supporting training programs, etc.
Component 3. Nursing and Midwifery Research and Development (Deleted)	
Component 4. Information Communication and Advanced Technology	Update the PMIS (Personnel Management Information System) of DGNM and human resource management system, and introduce asset management system, training management system, and transfer management; training on DGNM's MISs; establish a

[126] This objective was initially included in the 5th HPNSP, PIP, Volume-1 draft, but was deleted during the MoHFW review process.

	national e-library and e-book system, and strengthen the existing library facilities; establish simulation labs in all nursing colleges; capacity building training of simulation lab and skill labs; provide digital documentation training for faculty; provide support for digital classrooms in educational institutions, etc.
Component 5. Technical support, Logistic Supply, and Maintenance	Procurement, repair and maintenance of equipment at educational institutions (vehicles, exercise equipment, furniture, electronics, etc.); arrange workshops, seminars, meetings among faculties and hospital nurses; publish and print newsletters, manuals, journals, books/materials, etc.
Component 6. Coordination, Supervision, Monitoring, and Evaluation	Establish and implement a system for routine monitoring, supervision, and evaluation system for educational institutions by DGNM and BNMC; support for continuous monitoring, supervision, and evaluation of clinical practice by developing CNTs; arrange workshops, seminars, meetings to ensure effective clinical practice; provision of technical support and appointment of consultants, etc.

Source: Created by the Survey Team based on MoHFW document[127]

The following indicators have been formulated in the NME OP.

Table 6-4: Indicators of the NME OP

OP Level Indicators	Baseline Year (June 2023)	Target	
		Mid Target (by June 2027)	Mid Target (by June 2027)
Number of institutions introduced Quality Improvement system for Monitoring the standard of nursing and midwifery students' education and practice in public and private organizations.	0	10	20
Number of institutional heads, faculties and related officials trained on administration, financial management.	380	500	1,200
Number of new research cells established strengthened, and expansion of Research Cells at Nursing and Midwifery institutes and colleges.	18	20	50
Number of simulation labs established	1	8	20

Source: Created by the Survey Team based on MoHFW document[128]

[127] MoHFW, 5th HPNSP, Program Implementation Plan (PIP), Volume-1, p508-512. Component 3 (Nursing and Midwifery Research and Development) was deleted as explained above.
[128] MoHFW, 5th HPNSP, Program Implementation Plan (PIP), Volume-1, p507

6.2 Situational Analysis on Recruitment and Human Development of Nurses

(1) Policy and Systems

The DGNM is the main authority responsible for monitoring and supervising all administrative activities related to nursing education and services within the government sector under the MoHFW. Nursing services fall under the jurisdiction of the HSD, whereas nursing education falls under the MEFWD. The main roles of DGNM include developing polices related to nursing and midwifery; managing and implementing OPs; overseeing human resource functions including recruitment, transfer, and promotion; planning and managing pre-service and in-service educational; and coordinating with the Bangladesh Nursing and Midwifery Council (BNMC), other MoHFW directorates, and national and international organizations. Although DGNM is responsible for monitoring nursing education and services, it has been pointed that there is currently no regular monitoring of health facilities and educational institutions. As a result, DGNM is not fully aware of the issues occurring in the field. The BNMC is the regulatory body for nursing and midwifery services and education[129]. Its main roles include the registration of nurses and midwives, implementation of licensing examinations, issuing and renewal of licenses, and accreditation of nursing and midwifery educational institutions.

The Bangladesh Nursing and Midwifery Council Act, enacted in 2016, serves as the legal regulation for regulating the nursing and midwifery sector. It stipulates the mandate of the BNMC, including the registration of nurses and midwives, the accreditation of nursing and midwifery educational institutions, and the imposition of penalties for violations[130]. On the other hand, there are no legal regulations that define the role of nurses[131]. Additionally, there are existing guidelines that determine the roles, positions, and placements of nurses, such as the recruitment rules, job descriptions, and hospital standard setups. However, these regulations are not legally binding and have not been updated. The hospital standard setup determines the number of healthcare workers based on the number of beds in the health facility. The revised standard setup has also been reviewed but is yet to be implemented[132]. It is notable that DGNM is the only directorate under MoHFW that does not have an officially approved organogram since its establishment, despite having submitted proposals[133]. In December 2024, DGNM compiled draft revisions of the organogram, recruitment rules, and job descriptions after discussions with various stakeholders. The drafts were submitted to the MoHFW and are currently under review[134].

(2) Number of Nurses and Employment Situation

As described in Chapter 1.1 Background of the Survey, Bangladesh faces an absolute shortage of nurses compared with the international standards. The WHO sets a target of 4.45 medical personnel (doctors, nurses, midwives) per 1,000 population[135]. Bangladesh currently has only 0.5 nurses, 0.8 physicians, and 0.04 midwives per 1,000

[129] JICA, Project Completion Report of Capacity Building of Nursing Services Phase 2 (CBNS-II) – 1st term (2023), p61
[130] Bangladesh Nursing and Midwifery Council Act, https://bnmc.portal.gov.bd/, (accessed on 8 April 2025)
[131] As described in Article 6-8 (1), one source that can be referred to is the preface to the WHO-supported BSc Nursing Curriculum and Nursing Diploma Curriculum published in 2006, however, this sentence was removed in the revised version of the curriculum in 2018.
[132] Based on the interview with HSD Planning Wing on 17 February 2025.
[133] Based on the interview with DGNM on 30 January 2025
[134] Based on the interviews with DGNM on 30 January 2025 and CBNS-II Senior consultant on 31 January 2025.
[135] WHO. 2016. Health Workforce Requirements for Universal Health Coverage and the Sustainable Development Goals. (Human Resources for Health Observer, 17)

population—figures that fall far below the recommended ratio[136]. It is also notable that the ratio of physicians to nurses is indicating fewer nurses than physicians[137].

Table 6-5: Number of Nurses and physicians per 1,000 population

	Bangladesh	India	Nepal	Sri Lanka	Bhutan	Pakistan
Number of nurses and midwives	0.5	1.7	3.5	2.4	2.0	0.5
Number of physicians	0.8	0.7	0.9	1.2	0.6	1.1

Source: Created by the Survey Team based on MoHFW document and the World Bank[138]

As of December 31, 2024, a total of 101,169 nurses are registered with the BNMC, of which 88,160 hold diplomas 13,009 hold bachelor's degrees (Table 6-6). Although there is no difference in job descriptions based on the educational degree, a bachelor's degree or a higher degree is a requirement for promotion for positions such as Nursing Superintendent and lecturers at public nursing colleges. After the initial registration, it is mandatory to renew the license every five years. According to the BNMC data sheet on registered nurses, there are registrations in specialized areas (SN 8-14 in Table 6-6). However, no official qualifications or curricula currently exist for these specialized areas, and the specialties registered so far have been certified independently at each hospital.

Table 6-6: Number of Registered Nurses (As of December 31, 2024)

SN	Degree	Course Duration	Registered Number	Qualification[139]
1	Diploma in Nursing	3 years	20,173	SSC, Age under 22 years
2	Diploma in Orthopedic Nursing	1 year	1,687	Diploma in Nursing
3	Diploma in Nursing Science & Midwifery/ Orthopedic	4 years	7,432	HSC
4	Diploma in Nursing Science & Midwifery	3 years	60,759	HSC
5	BSc in Nursing	4 years	13,009	HSC, Science & Biology
6	B. Sc in Nursing (Post-Basic)	2 years	8,439	Diploma in Nursing
7	B. Sc in Public Health Nursing	2 years	1,774	Diploma in Nursing
(Specialized areas)				
8	Psychiatric Nurse	1 year	82	
9	Ophthalmic Nursing	1 year	31	
10	Paediatric Nursing	1 year	90	
11	Diploma in Cardiac Nursing/ Intensive Care Nursing	1 year	336	
12	Chest Disease Nursing	1 year	44	
13	Rehabilitation Nursing (Held up)	1 year	37	
14	Renal Nursing	1 year	0	1st batch running

* The nursing education system was reformed in 2008. The diploma degrees (listed in SN 1-3 in the above table) were merged into Diploma in Nursing Science &-Midwifery (SN 4 in the table) and a four years bachelor's program in nursing (SN 5 in the table) was introduced. The two years bachelor's program in nursing (SN 6 and 7 in the table) is a bachelor's degree course for diploma nurses.
Source: Created by the Survey Team based on BNMC data[140]

[136] The number of nurses per 1,000 population is based on data from MOHFW Health Bulletin 2023; the number of midwives per 1,000 population is based on data from MOHFW HRH Data Sheet 2023.
[137] MOHFW. 2024. HRH Data Sheet 2023
[138] World Bank, Open Data,
No. of nurses/midwives: https://data.worldbank.org/indicator/SH.MED.NUMW.P3?cid=ext_twbn_d_ext&end=2022&start=2018 (accessed on 23rd June 2025)
No. of physicians: https://data.worldbank.org/indicator/SH.MED.PHYS.ZS (accessed on 23rd June 2025)
[139] According to the Bangladesh school system, grades 1-5 correspond to primary school, grades 6-10 to secondary school, and grades 11-12 to higher secondary school.
[140] BNMC, Data Sheet of Registered Nurses, Midwives and Allied Professionals in Bangladesh (Up to 31 December 2024)

The vacancy rates for nurses in the government sector are indicated in the following table.

Table 6-7: Vacancy Rates of Nurses According to Position

Name of the Position[141]	Sanctioned Post	Filled Post	Vacant	Vacancy Rate
Nursing Superintendent (Grade 7, Grade 9)[142]/ Deputy Nursing Superintendent (Grade 9)/ District Public Health Nurse (Grade 9)	258	160	98	38%
Nursing Supervisor (Grade 10)	1208	969	239	20%
Sr. Staff Nurse/Staff Nurse/Public Health Nurse (Grade 10)	43,082	39,880	3,202	7%
Teaching Workforce (Grade 4-9)[143]	632	231	401	63%
Teaching Workforce (Grade 10)	429	422	7	2%
Total	45,609	44,208	3,947	-

Source: Created by the Survey Team based on MoHFW data[144]

Nurses working in the government sectors account for around 40% of the total number of registered nurses. Since 2006, the number of nurses working in government health facilities has more than tripled, increasing from 13,602 nurses[145]. Although the vacancy rate for Senior Staff Nurse/Staff Nurse appears low, it is recognized that the sanctioned posts for nurses based on the hospital standard setup are insufficient, limiting employment opportunities in the government sector. Additionally, it has been noted that healthcare workers face high workload pressure due to staffing shortages. While filling vacant posts, it is also necessary to increase the number of sanctioned positions[146]. In government health facilities, nurses are currently assigned only to facilities at the upazila level and above, with no designated posts at the community or union levels. The revised DGNM organogram draft, which is currently under review, proposes the placement of nurses at the community level as a new category of posts. Regional differences have been observed, with Chattogram and Sylhet divisions having higher nurse vacancy rates compared with other divisions. In Sylhet, there is a tendency among nurses to seek employment opportunities abroad, particularly in England, while Chattogram's status as an economic city, which may lead to lack of interest in the nursing profession[147].

The recruitment of nurses in the government sector is managed not at the health facility level but by centrally by various government level, including the MoH, MoPA, MoF, and the Bangladesh Public Service Commission (BPSC). Recruitment is not conducted on a regularly basis and involves multiple agencies, making the process cumbersome and time-consuming. The number of nurses recruited in the last five years is shown in Table 6-8. Under the BPSC, 5,101 nurses were appointed in 2018 from 11,357 registered nurses who passed the written examination. Subsequently, 5,075 nurses were recruited in 2020, and 8,135 in 2021. However, only 14 nurses

[141] In Bangladesh, the salary of all the employees in the government sectors are defined by a grade system. The smaller the grade number, the higher the position.
[142] The highest position in Nursing Services is the Nursing Superintendent. Despite the same position, it is placed in several grades and is not harmonized.
[143] The highest position in nursing education is the head of the nursing educational institution (Principal, Director etc.). The position of the Principal is placed in grade 4, grade 6 and grade 7. The reason that there are multiple grades for the same position is because the grade of was set according to the situation at the time each college was established and was not harmonized across institutions.
[144] MoHFW, HRH Data Sheet 2023, p7
[145] MoHFW, Health Bulletin 2023, p327
[146] MoHFW, Bangladesh Health Workforce Strategy 2024, p8
[147] Based on the interview with BNMC on 29 January 2025

were recruited in 2022, indicating that a stable recruitment system is not yet in place. Moreover, the number of appointments is not calculated based on estimates of retirements, and the timing and the criteria for recruitment remain unclear.

Table 6-8: Recruitment of Nurses in the Government Sector Over the Last Five Years

	2018	2019	2020	2021	2022
Number of recruited nurses	5,101	-	5,075	8,135	14

Source: Created by the Survey Team based on MoHFW data[148]

According to interviews conducted with nurses at several hospitals, securing appointments in the government sector is particularly challenging, with new graduates rarely being appointed directly. Some nurses mentioned having to wait seven to nine years after graduating from nursing training institutes before being employed in the government sector. During this period, they often gained nursing experience by working in private hospitals, overseas, or teaching at private nursing institutions[149].

In addition to the challenges related to nurse appointments, limited opportunities for promotion have also been recognized. Salaries for all government employees are defined by a grade system, and all newly graduated nurses begin their careers at grade 10, regardless of their educational qualifications. According to recruitment rules, nurses become eligible for promotion to higher grades based on their degrees and years of clinical experience. However, the process of promotion, managed by the central government, remains stagnant. As a result, the majority of nurses working in healthcare institutions do not have opportunities to be promoted from the time they begin their careers until retirement. This situation aligns with the data in Table 6-7, which indicates higher vacancy rates for positions at higher grades. In the interviews with nurses during the hospital visits, it was noted that there are number of nurses who have over 20 years of experience—often taking on additional roles—had not been promoted and are paid the same salary as newly graduates. The lack of promotion opportunities as well as the need for recognition and advancement based on roles and responsibilities were consistently raised as concerns in all the hospitals visited. Due to the limited opportunities for promotion, some nurses choose to give up their career as clinical nurses and pursue a career in teaching and administration. The stagnation in promotions has become a major bottleneck, undermining nurses' motivation and hindering their professional knowledge and skill. In response to these issues, the DGNM's proposed revision of its organizational chart includes measures to increase the number of sanctioned posts for nurses and create career development opportunities linked to grade progression[150].

(3) Training for Nurses

Under the PIP of the 5th HPNSP, several trainings are organized for nurses. These includes those listed in the NMS OP and the NME OP, both managed by the DGNM. Additionally, training programs are provided under the UHC OP and the PHC OP. Examples of training activities managed by DGNM are listed below.

[148] MoHFW. HRH Data Sheet 2023. p8
[149] Based on interviews with clinical nurses in February 2025
[150] The revised draft proposal is an internal document and is not yet available, as of 28 February 2025.

Table 6-9: Training for Nurses

Relevant OP	Name of training	Duration
NMS	Training on Neonatal and Pediatric Nursing	28 days
	Training on Oncology Nursing	28 days
	Training on Cardiac Nursing	28 days
	Training on Intensive Care Unit (ICU)	28 days
	Training on Job Orientation	14 days
	Preceptorship Training for Clinical Nurses	14 days
	Training on Elderly and Geriatric Care	6 days
	Training on Infection, Prevention and Control (IPC) & Waste Management	6 days
	CPD	6 days
NME	Training on Research Methodology	1 week
	Training on Teaching Methods	1 week
	Training on Nursing Care Plan	1 week
	Training for Instructor (Pediatric Nursing, Adult Nursing, Oncology Nursing, Geriatric Nursing, Critical Care Nursing, Disaster Management etc.)	1 week
	Training on Lab Management	1 week

Source: Created by the Survey Team based on MoHFW document[151]

The orientation training is a mandatory requirement for all nurses working in the government sector. The number of nurses who received this orientation training serves as one of the indicators of the NMS OP. The training includes lectures such as basic concepts of nursing (nursing process, nursing theory), nursing ethics, administration and management, leadership, supervision, ward and time management, BCC, nursing records, research, occupational safety, infection control, Government Servants Rules, and the DGNM's personnel management system. Despite being named “orientation training”, it is not always possible to take the course immediately after joining the government service. In practice, many nurses receive the training several years after starting work in the government sector.



Training manuals kept at the DGNM office:
A training manual is prepared for each training program. The authors include Bangladeshi experts, such as DGNM officials, faculty from nursing colleges and nursing institutes, and nurses working at medical university hospitals and specialized hospitals.

Although it is ideal for nurses working in specialized wards —such as intensive care nursing and oncology nursing—to participate in training to acquire advanced knowledge, not all are able to attend due to limitations in the number of participants. For instance, out of the 52 nurses working in the ICU ward at Dhaka Medical College Hospital, only 20 have attended the ICU-specific training. Furthermore, there is no mandatory requirement for trained participants to share the training contents and materials with other nurses who were unable to attend.

[151] MoHFW, 5th HPNSP, Program Implementation Plan (PIP), Volume-II, p301-302, 330-331

Sharing knowledge informally is often considered as an additional task[152].

Some hospitals conduct in-house training for all staff by the initiative of the hospital director on an ad hoc basis, covering topics such as behavior change communication. However, organizing in-house training at the hospital-level is not a common practice in Bangladesh. Trainings for nurses are primarily provided by the Ministry of Health and donors, but not everyone has access to such opportunities. Moreover, there is no established systematic system in place for nurses. This situation limits opportunities for clinical nurses to improve their knowledge and skills.

(4) Situation of Nursing Educational Institutions

According to the BNMC, the number of nursing colleges and institutes, along with their respective seat capacities, is shown in Table 6-10.

Table 6-10: Number of Nursing and Midwifery Educational Institutions and Seats

Course name[153]	Course duration	Government (DGNM)		Autonomy/Military		Private		Total
		Institution	Seat	Institution	Seat	Institution	Seat	
Diploma in Nursing Science in Midwifery	3 years	49	2880	-	-	358	17695	20575
BSc in Nursing	4 years	32	2100	7	375	154	7425	9900
BSc in Nursing	2 years	10	725	1	25	120	4765	5515
MSc in Nursing	2 years	2	270	-	-	21	1630	1900
（Midwifery, as reference）								
Diploma in Midwifery	3 years	62	1825	-	-	109	3930	5765
BSc in Midwifery	2 years	4	80	-	-	5	160	240
Total (Including nursing and midwifery)		70	7880	8	400	383	35615	43895

Source: Created by the Survey Team based on BNMC data[154]

There are two main educational curricula for nursing in Bangladesh: a four-year Bachelor of Science in Nursing (BSc) program and a three-year Diploma in Nursing Science and Midwifery program. The four-year BSc program was introduced in 2008 with the aim of producing nurses that meet the international standard. In general, nursing colleges offer the four-year BSc course, while nursing institutes provide three-year diploma course. Some nursing colleges also offer both the diploma course in addition to the BSc program. In this case, the same faculty members typically teach both courses. Additionally, a two-year BSc program (Post-Basic) is available for diploma-qualified nurses who have at least two years of clinical experience. All nursing programs provide education according to the curriculum developed by the BNMC, which consist of theoretical lectures, laboratory practice, and clinical

[152] Based on the information provided at Dhaka Medical College Hospital on 9 February 2025.

[153] Some nursing colleges and nursing institutes offer more than one course. In such cases, the number of institutions is counted as one for each course, but the number indicated in "Total (including nursing and midwifery)" is counted as one institution. Therefore, "the total number of institutions (including nursing and midwifery)" is not the sum of the number of institutions for each course.

[154] BNMC, List of nursing and midwifery educational institutes (As of 30 January 2025)

training.

During our visits to Dhaka Medical College Hospital, Narsingdi District Sadar Hospital, and other healthcare facilities, we obtained information on the educational degrees acquired by the nurses working in each hospital (Table 6-11). It is notable that a portion of nurses have master's and doctoral degrees, indicating that a certain number of nurses are willing to pursue higher education to obtain higher degrees.

Table 6-11: Number of Nurses by Educational Degree in Health Facilities

	Number of Nurses	Diploma	BSc	MSc	PhD
Dhaka Medical College Hospital	2504	2389-2404	60	30-40	10-15
Mymensingh Medical College Hospital	1079	822	147	110	0
Shaheed Tajuddin Ahmad Medical College Hospital	413	133	200	80	0
Narsingdi District Sadar Hospital	104	68	20	15	1
Narsingdi UHC	25	14	10	1	0

Source: Created by the Survey Team based on the interviews [155]

Regarding postgraduate education in nursing, NIANER plans to offer a doctoral program starting in 2025. Additionally, master's programs are scheduled to start at Dhaka Nursing College, College of Nursing Sher-E Bangla Nagar, and Mymensingh Nursing College this year. Furthermore, the Grameen Caledonian College of Nursing, a private nursing college, is running a master's program from 2022 and plans to open a hospital affiliated to the college to strengthen clinical practice in the near future.

After completing the diploma or bachelor's degree programs, students are required to complete a six-month clinical internship. Following the internship, they must pass the BNMC national examination. Upon passing the examination, the BNMC issues a nursing license and registers the individual as a registered nurse.

The number of both public and private educational institutions for nursing has increased remarkably in recent years, with nursing colleges increasing 4.8 times and nursing schools increasing 2.9 times compared with 2010[156]. More than 80% of these nursing colleges and institutes are private operated. However, there are concerns that the rapid expansion of private educational institutions has not been matched by adequate assurance of education quality[157].

According to the recruitment rules, candidates must possess at least some clinical experience and a bachelor's degree to become teachers in public nursing educational institutions; however, no other specific qualifications are required. Opportunities of training for faculty as well as educational programs for teacher's development are limited. As a result, many teachers lack academic expertise in teaching methods or specialized area, often instructing subjects regardless of their fields of specialty or experience.

Based on interviews with faculty members of nursing colleges, the majority of graduates choose private nursing education institutions as their first job after graduation, primarily due to limited employment opportunities in the

[155] Based on the information provided at the facility on 9 and 10 February, 2025.
[156] MoHFW, Bangladesh Health Workforce Strategy 2023
[157] MoHFW, Bangladesh Health Workforce Strategy 2024, p13

government sector. There are no specific criteria to becoming a teacher in some private nursing institutions, which raises concerns whether adequate quality nursing education can be provided by those who lack clinical and teaching experience.

To ensure the quality of education in nursing institutions, there is an accreditation system managed by the BNMC. This system objectively and systematically evaluates whether educational institutions meet the required quality standards. The system assesses five key criteria: (1) Administration and leadership, (2) Student type and intake, (3) Teaching staff and learning, (4) Curriculum delivery, and (5) Resources. Both public and private educational institutions are eligible to apply for accreditation, but it is not mandatory. The accreditation process involves several steps, including a self-assessment conducted by the educational institution, on-site surveys by review teams, and final evaluations. The preparation of accreditation documents can be cumbersome for educational institutions and the review process tends to be delayed due to manpower constraints at BNMC. Dhaka Nursing College—supported by JICA's technical project, Capacity Building of Nursing Service Project Phase I (CBNS-I) (2016-2020)—is the only educational institution that has managed to receive accreditation. Five other institutions have submitted applications and are currently awaiting the review process[158].

6.3 Facilities, Medical Equipment, and Hospital Service Provision

（1）Hospital Service and Medical Equipment Related to Nursing Services

All medical facilities, including tertiary hospitals, are overwhelmed with patients, constantly accommodating 120-150% more patients than its receiving capacity[159]. During hospital visits, it was common to observe patients receiving treatment on rugs in the corridors or directly on the floor due to a lack of available beds. In some instances, more than two patients were found sharing a single bed. Despite this overcrowding, the number of nurses assigned to a hospital is fixed based on the number of beds, not the actual patient load. As a result, the mismatch between patient volume and staffing has led to a significant shortage of manpower, thereby impeding the provision of nursing services.

In medical facilities, the equipment and facility available for nurses are extremely limited. At the medical college hospital level, there are provisions specifically designated by nurses only, such as a nursing superintendent's office, a staff room for nurses, and a laptop intended for administrative tasks by the nursing superintendent. In the wards, workspaces for nurses vary among hospitals. In some institutions, nurses have only one desk placed in the corner of the ward, while others provide a larger counter space.

The items used by nurses in the wards—including medical equipment, medical supplies, and medicines—are typically managed by the nurses through a register book. However, the availability of essential medical equipment routinely used by nurses, such as sphygmomanometers, thermometers, blood glucose meters, and stethoscopes, is severely limited and often insufficient. In some hospitals, even basic tools like thermometers,

[158] Based on the interview with BNMC on January 29th 2025
[159] Based on the information provided at Dhaka Medical College Hospital on 9 February 2025.

sphygmomanometers, and pulse oximeters were not available in the wards. As a result, patients were asked to purchase these items themselves.

There are no procedure manuals, medical equipment manuals, or reference medical books available in the wards for nurses to refer to for necessary information and procedures. Even at the medical college hospital level, standardized nursing records—which are essential to assess patients, record results and interventions—are not in place. In some hospitals and wards, even basic tools such as vital sign records are absent. The main tasks of nurses working in hospital wards are mainly administering medications prescribed by physicians, managing supplies (such as medical equipment, medical consumables, and medicines), and maintaining patient registers that contain information such as patient demographics, admissions and discharges, and disease-specific case counts. However, due to the absence of standardized documentation, it is difficult to determine how nurses assess patient conditions and what clinical interventions they perform. Examples of available records observed in the wards are shown below (Photo 1-3).

Although the application of nursing care process and nursing planning is taught as a core principle in the subject of Fundamental Nursing within both bachelor's and diploma nursing programs, these approaches are not used in clinical practice. Observations revealed that nurses' duties are primarily limited to performing routine tasks. Due to a constant shortage of basic medical equipment, nurses lack the necessary tools to practice and improve their skills. In departments requiring advanced competencies, such as intensive care units, there were requests for simulation equipment for nurses that can be used for practicing their skills.

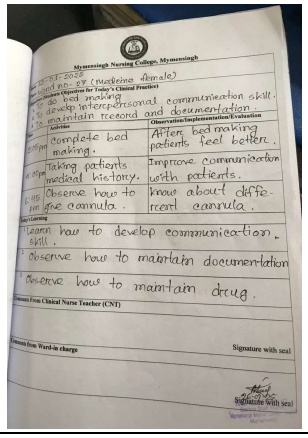
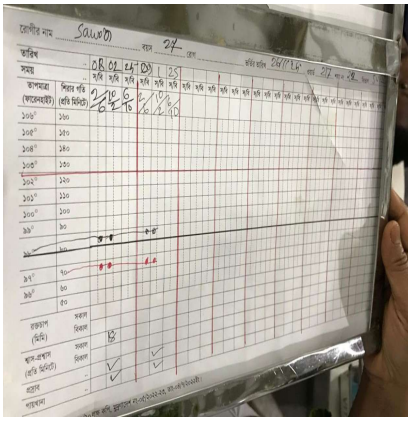
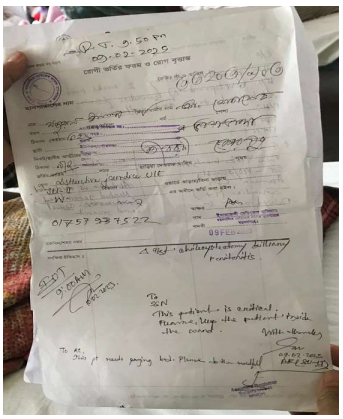
		
Photo 1: Daily records used by nursing college students in clinical practice. The daily objective and practice records are noted.	Photo 2 : A vital sign record (temperature sheet) observed at Hospital A. The record was placed in a footboard frame of the patient's bed.	Photo 3 : A patient admission record observed in Hospital B. There is no record of the patient's condition after admission nor vital sign records (temperature sheet). The admission record was placed on the bed (no files).

Photo : Survey Team

（2）Facilities and Equipment Related to Nursing Education

1) Nursing Colleges

According to the Baseline Survey of the Capacity Building of Nursing Services Phase 2 (CBNS II) conducted in 2022, there is a high demand for improved learning facilities, which remains an issue for many nursing colleges. Several institutions have not yet able to establish a well-equipped skills laboratory (lab) as well asor libraries with adequate educational resources. Among the eight colleges supported by CBNS II, six colleges (excluding Dhaka District) serve as the main nursing colleges in their respective districts and have received relatively more support from the DGNM and other donors. Although some of the equipment is outdated, these colleges tend to have more equipment for training than other nursing colleges. UNFPA provides support for the midwifery course, and the lab equipment is well stocked. However, Mymensingh Nursing College mentioned there is not enough space in their lab rooms, preventing them from setting up the equipment they have procured. As a result, many of the items remain unused and stored in boxes. At Shaheed Tajuddin Ahmad Nursing College, there is a lack of lab equipment for both nursing and midwifery programs. This is due to the later introduction of the bachelor's degree and limited support from the DGNM and other donors, since the college is located in a regional area. The fundamental nursing lab has only one adult mannequin and five beds for 100 students per grade. Some efforts have been made to substitute the lack of equipment, such as utilizing online video materials to teach the nursing skills; however, it is not enough for students to fully acquire practical skills.

The DGNM and several colleges have expressed a need for simulation lab equipment[160]. Due to the limited availability of lab equipment and a shortage of faculty members in charge for lab practice, students are unable to fully acquire skills during the laboratory sessions . This results in students having no confidence in performing procedures and causes anxiety among patients when receiving care from nursing students during clinical practice. Therefore, it was expressed that simulation lab equipment would enable students to obtain sufficient nursing skills during lab practice. However, despite the high demand to introduce simulation equipment, some faculty members expressed concern that it may take time to effectively utilize the tools. This is due to the additional workload on teaching staff, who are constantly in shortage and overloaded and would need to learn how to operate and manage the new equipment.

		
Photo1: The fundamental nursing laboratory room in the nursing college supported by CBNS-I.	Photo 2 : Due to the lack of space of the lab rooms, the lab equipment procured are kept in boxes without being used. (Mymensingh Nursing College)	Photo 3 : There are only six beds and only one adult mannequin in the fundamental nursing lab. (Shaheed Tajuddin Ahmed Nursing College)

Photo : Survey Team

[160] Based on the information provided at the Dhaka Nursing College, Mymensingh Nursing College, Shaheed Tajuddin Ahmad Nursing College

Public nursing colleges have student and faculty dormitories; however, these facilities are insufficient to accommodate all students and faculty members. For example, Shaheed Tajuddin Ahmed College of Nursing selects dormitory residents based on their financial situation, since it is not possible to accommodate all students. In addition, the absence of faculty dormitories and assigned security personnel for student dormitories raises concerns about student safety during the night. Some nursing colleges are planning to establish new master's programs—such as Dhaka Nursing College and Mymensingh Nursing College—have requested the extension and reconstruction of their student dormitories, as the existing facilities are aging and inadequate to support the anticipated increase in student enrollment.

2) Regional Nursing and Midwifery Training Institutes

There are four Regional Nursing and Midwifery Training Institutes (RMTIs) in the country, each located within the premises of nursing colleges. These institutes provide training for nurses, midwives, and nursing and midwifery faculty, organized by the DGNM and donors. The facilitators of these trainings are often resource persons from DGNM and faculty members from the nursing colleges. The institutes are equipped with lecture rooms and provide accommodation for training participants from other regions. However, since the institutes themselves lack training equipment, necessary materials for skill-based training sessions are provided by the nursing colleges and affiliated medical college hospitals.

6.4 Situational Analysis on Other Human Resources for Health

The Bangladesh Health Workforce Strategy, which describes the principal strategies for managing human resources in health—including nursing personnel—was formulated in 2015 and updated in 2024. This update reflects Bangladesh's economic growth, its graduation from a low-middle income country, as well as demographic and epidemiological changes, including the impact of COVID-19. The strategy sets out five objectives: (1) Ensure the availability of a competent and adequate number of workforce aligned with the needs of the health system; (2) Produce, develop, and sustain a quality health workforce at all levels; (3) Recruit, deploy, and retain health workforce equitably; (4) Promote and maintain high standards in health workforce performance; and (5) Promote evidence-based health workforce decision-making to improve health outcomes. These objectives support the overall mission to "ensure quality health service for all by developing a skilled, motivated, and responsive health workforce that is adequate in number and equitably available across the country." At the time of the initial formulation of the strategy in 2015, five thematic areas were identified: (1) Health workforce planning; (2) Health workforce production and capacity development; (3) Health workforce deployment, retention, and professional engagement; (4) Management of high-performance standards; and (5) Health workforce information systems. In the 2024 revision, two thematic areas were added: (6) Public health emergency workforce; and (7) PHC-orientation of the health workforce. These additions reflect the lessons learned from the COVID-19 pandemic and aimed to support the achievement of UHC by 2030.

The categories of human resources for health in Bangladesh include commonly recognized medical occupations such as doctors, nurses, midwives, and pharmacists, as well as various community-level human resources who require only a few months of training. There have been no significant changes regarding the types of health

personnel, duration of education or training, and the service delivery tiers they are assigned to since the previous Survey. Doctors are trained through a five-year Bachelor of Medicine and Bachelor of Surgery (MBBS) program at medical colleges, followed by a mandatory one-year internship. At the community level, only three months of training is required to become a CHCPs, who serve as heads of community clinics. Health Assistants and Family Welfare Assistants, who are mainly responsible for health education and home visits, receive only 21 days of training.

The following table presents the vacancy rates of key health personnel and the number of health personnel employed over the past five years in government health facilities.

Table 6-12: Vacancy Rates of Key Health Personnel in Government Health Facilities (%)

	Sanctioned Post	Filled Post	Vacancy Rate
Doctor (under DGHS)	35,342	29,366	17%
Doctor (under DGFP)	1,636	950	42%
Dentist	1,418	807	43%
Nurse	45,548	41,009	10%
Midwife	3,514	2,546	28%
Pharmacist	2,950	2,203	25%
Medical Technologist (Lab)	2,636	2,043	23%
Medical Technologist (Radiography)	874	671	23%
Medical Technologist (Physiotherapy)	452	215	52%

Source: Created by the Survey Team based on MoHFW data[161]

Table 6-13: Number of Personnel Recruited in the Government Health Sector Over the Past Five Years

	2018	2019	2020	2021	2022
Doctor	180	4,734	2,000	409	3.957
Dentist	-	294	-	-	-
Nurse	5,101	-	5,075	8,135	14
Midwife	1,149	-	-	1,408	-

Source: Created by the Survey Team based on MoHFW data[162]

Recruitment for other health personnel follows a similar pattern to that of nurses, with no regular recruitment mechanism in place. As shown in Table 6-13, the number of recruited personnel fluctuates from year to year. Both the 5th HPNSP and the Health Workforce Strategy emphasize the necessity to increase the number of health personnel in government health facilities by filling vacant posts. It is also pointed out that health personnel working in government facilities experience high workload, indicating the need only to fill existing vacancies but also increase the number of sanctioned posts[163]. However, while the OP of the 5th HPNSP states that efforts will

[161] Based on the data from HRH Data Sheet (2023) and the Health Bulletin 2023, MoHFW.
[162] MoHFW, HRH Data Sheet 2023, p8
[163] MoHFW, Bangladesh Health Workforce Strategy 2024, p8

be made to increase the number of available health workforce, it does not include any specific activities that will enable this.

6.5 Situation Analysis of Other Donors and NGOs in the Nursing Sector

Global Affairs Canada (GAC) has been a major donors providing support to the nursing sector in Bangladesh since 2012. Currently, the "Empowering Women through Professionalization of the Nursing Sector in Bangladesh" project—also known as ProNurse— is being implemented from 2021 to 2027. The project aims to improve the quality of nursing education, strengthen the professionalism of nurses, and enhance the environment for nurses in the health sector. The project has a total budget of USD 26,236,460. As reflected in its name, the project adopts an approach focused on empowering women and improving their status through support in the nursing sector. Previous GAC projects provided technical support for the development of accreditation guidelines for nursing and midwifery education institutions under the BNMC, as well as support for establishing a Personnel Management Information system (PMIS) managed by the DGNM. GAC has formulated both past and ongoing projects in line with the HPNSP. The main activities under the 5th HPNSP include the establishment of the National Nurse Teachers Training Centre in collaboration with the University of Montreal, the implementation of certification programs for trained teachers, and leadership training for nurse managers. The National Nurse Teachers Training Centre, to be established at the Mohakhali College of Nursing, will focus on strengthening the faculty teaching methods and curriculum development. The project is also supporting the development of a CPD framework and is working with the BNMC to devise a scoring system based on professional development activities, which will be linked to the license renewal process[164]. The CBNS-II project has been supporting the accreditation of nursing schools and the career path development and revision for nurses through career path meetings organized by the DGNM and relevant donors. When considering future support in the nursing sector, it is imperative to collaborate with GAC, given the number of related initiatives.

Korea International Cooperation Agency (KOICA) and UNFPA have also provided support to the nursing and midwifery sector. KOICA supported the establishment of the National Institute of Advanced Nursing Education and Research (NIANER) in 2018, which offers the first master's degree program in nursing in Bangladesh. KOICA is also planning to support the establishment of the country’s first doctoral program in nursing at NIANER in 2025. On the other hand, UNFPA has mainly supported the midwifery sector. Its support has included the provision of teaching materials, lab equipment, assistance in curriculum development, enhancement of education quality, institutional accreditation support, as well as capacity building for in-service midwives. UNFPA also participates in the career path working group and donor meetings in the nursing and midwifery sector, along with JICA and GAC.

WHO provides support in health human resource development. In the field of nursing and midwifery, WHO is also a member of donor meetings and has provided technical assistance to BNMC for curriculum development/revision, development of accreditation guidelines for educational institutions, and developing checklists for clinical practice of nursing students.

[164] Based on the interview with the ProNurse Project leader on 16 January 2025.

Maintaining close communication and coordination with these donors is essential when formulating projects related to the nursing sector.

6.6 Analysis of Development Assistant Approaches to Produce Nurses with Improved Quality

To effectively develop quality nurses, it is necessary to correctly understand the current situation. According to the CBNS-II baseline survey, evaluation based on accreditation criteria for 10 nursing colleges, including eight CBNS-II target colleges and two non-target colleges, showed that some of these institutions may not be providing sufficient quality education. During the site visit of this survey, it was observed that the number of faculty members was insufficient, and video materials were frequently used to teach students. This observation corroborated the results of the baseline survey regarding the inadequate quality of education. Figure 6-1 illustrates the current situation of nursing education, highlighting the ideal and the actual competency of nurses after employment. The black arrow indicates the expected improvements in knowledge and skills. After graduating from nursing college, nurses are expected to have acquired the minimum required competencies. Their competencies should then increase through clinical experience and on-the-job training, ultimately enabling them to provide advanced nursing services in specialized fields.

In contrast, the green, yellow, and red dashed lines indicate the actual situation in Bangladesh. Since the quality of nursing education in public nursing colleges is insufficient, the acquired skills at graduation fall short of the expected standard (green dashed line). Furthermore, if graduates do not find employment as nurses immediately after graduation, their acquired skills tend to deteriorate over time (red dashed line). Even if graduates find employment several years after graduation, they will need to regain knowledge and skills that have been lost (right side of the red dashed line). On the other hand, if a graduate secures a nursing job as a nurse immediately after graduation (yellow dashed line) but does not receive follow-up training, their competence is unlikely to improve, and the nursing services they provide will remain limited to the scope of knowledge gained from their initial work. In this case, since nursing knowledge remains confined to the scope of their work experience, nurses may perceive nursing services far differently from what ideal nursing should be. If such nurses later become, there is concern about their ability to teach the competencies expected in nursing education. In addition, some nurses join private nursing schools as faculty members immediately after graduating from nursing colleges or institutes, which may further impact the quality of instruction. Since there is a gap between the knowledge acquired at nursing colleges and institutes and the competency level expected upon graduation (pink vertical arrow), it can be assumed that the quality of education in private nursing institutes may further deteriorate. Considering this situation, the fundamental challenge in nurse training is to elevate nurses' competency from the dashed green line to the desired solid black line, thereby ensuring the quality of nursing education.

The majority of faculty members in nursing colleges and institutes teach subjects outside their areas of expertise. As a result, course assignments are not aligned with individual faculty members' academic or professional backgrounds. This situation is compounded by a constant shortage of faculty and the absence of an established career path that would promote the strengthening of subject-specific expertise, even after entering the teaching profession. Although the establishment of a master's degree program pursued by the Bangladesh government is

intended to increase the number of nursing faculty members in the future, significant improvements in the program are unlikely in the short term, considering the current situation of nursing colleges. Moreover, a substantial increase in the number of faculty members in public nursing colleges is not expected. Thus, the establishment of a master's degree program alone will not be sufficient to improve the current situation. It is first necessary to create an environment that ensures the quality of education provided through the program. In this regard, the introduction of an accreditation system for nursing educational institutes is expected to contribute to improving the overall quality of education. However, as mentioned in Sections 6.2, Situational Analysis on Production of Nurses, and 6.3, Facilities, Medical Equipment, and Hospital Service Provision (2): Facilities and Equipment Related to Nursing Education, observations during the site visits raise questions as to whether the facilities meet the required standards. Although the significance of accreditation warrants further discussion, improving the quality of nursing education within the current system requires not only to support the environment to meet accreditation standards but also supporting the process of accreditation itself. At the same time, it is necessary to establish a system that enables graduates of master's degree program to reflect the knowledge and skills they gained from their studies to their roles in the public sector.

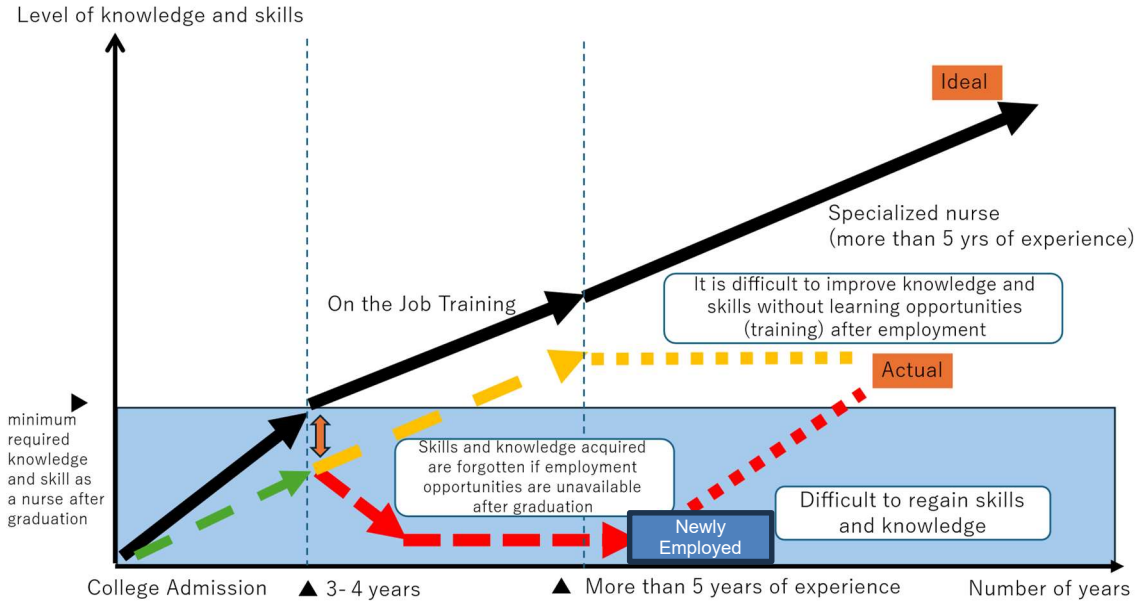


Figure 6-1: Understanding of the Current Situation of Nursing Education by the Survey Team

Source: Survey Team

In addition to improving the quality of nursing education, it is crucial to develop a system that enables nurses to continuously develop their profession. In Bangladesh, no formal CPD framework currently exists for nurses; however, efforts are underway to develop one in collaboration with the DGNM, along with other donors such as the CBNS-II Project and GAC. In this regard, it is necessary to monitor the progress of support provided by CBNS-II and ProNurse for career development and regulatory revisions, to ensure alignment with CPD and the future renewal of nursing licenses. At the same time, it would be meaningful to support the BNMC in establishing a system for collecting data on nursing college graduates and registered nurses. Additionally, supporting the

DGNM in utilizing this information to formulate new strategies for nursing education and services would also be valuable.

Under the existing career path for nurses, clinical nurses working in the public sector have limited opportunities for professional development. Despite improvements in their competencies and expertise, majority of nurses do not receive any evaluations or promotions. To address this, it is necessary to establish a supportive environment for career development that fosters motivation, encourages skill enhancement, and reinforces professional pride among nurses. In this regard, it is necessary to assess whether the December 2024 draft revision aligns with these perspective.

6.7 Proposals Based on JICA Support within the OP and Additional Needs Identified through the Survey

(1) Proposals Based on JICA Support Adopted in the OP

In the previous and current technical cooperation projects of JICA (CBNS-I: 2016-2020, CBNS-II: 2023-2026), technical support has been provided in the following three areas: nursing administration, nursing education systems, and clinical practice for students. The activities of the nursing administration include the expansion of the accreditation system for nursing colleges and the development of career paths. In the area of strengthening the nursing education system, several committees were established to promote continuous professional development and quality improvement in the target nursing colleges , and master trainers (MT) were developed with the aim to improve the capacity of faculty members. In order to strengthen clinical practice, the collaboration between the nursing colleges and the medical college hospitals is reinforced, and the system for training and utilizing MTs, who are responsible to train clinical nurse teachers (CNT) and promote in-service training within the hospitals, is established.

Several activities adopted in the OP of the 5th HPNSP aim to develop and continue the achievements of previous JICA projects, specifically CBNS-I and CBNS-II. Table 6-14 lists the components and activities reflected in the OP that corresponds to the proposals mentioned in the CBNS-II Phase I Completion Report (1st term) as well as previous JICA assistance in relevant areas.

Table 6-14: List of Components and Activities in the OP Related to Proposals from the CBNS-II Completion Report (1st Term) and Previous JICA Assistance in Relevant Areas

Propositions in CBNS-II Phase I Completion Report (1st term) and previous JICA assistance in relevant areas	Relevant components and activities adopted in the OP
Career path development	OP 23 Component 1: Activity 1,2,3 Component 3: Activity 3 OP 34 Component 1: Activity 2
Accreditation of nursing colleges	OP 34 Component 1: Activity 6
Training of nursing administrators and institutional managers in selected issues	OP 34 Component 2: Activity 1,2,3
Establishment of CPD framework	OP 23 Component 2: Activities 12 OP 34 Component 1: Activity 8

Develop Master Trainers (MT)	OP 34 Component 2: Activity 14
Strengthening clinical practice through Clinical Nurse Trainers (CNT)	OP 23 Component 2: Activities 11 OP 34 Component 6: Activity 2
Strengthen the monitoring by DGNM	OP 23 Component 7: Activities 3 OP 34 Component 6: Activity 1
Promote academic research to enhance the expertise of faculty	OP 34 Component 3
Improve subject based teaching	OP 34 Component 2: Activity 4,5
School health	OP 23 Component 1: Activity 6 Component 3: Activity 4

Source: Created by the Survey Team based on CBNS-II Completion Report (1st term) and the 5th HPNSP OP

The incorporation of various CBNS-II propositions into the OP may help ensure the sustainability of ongoing assistance. It can also be seen as indicating the direction for new projects following CBNS-II, which will conclude during the implementation of the 5th HPNSP. Therefore, when considering future support, the proposed areas listed in the above table should be taken into account. Although school health is not covered under CBNS-II, Bangladeshi health and education administrators have been invited to Japan as trainees in 2015, 2016, and 2023 as part of the "School Health" training conducted by the JICA Chubu Center[165]. The activities related to school health outlined in the OP are intended to explore employment opportunities for nurses after graduation. However, as of February 2025, these activities remains under review within the MoHFW, with no discussions yet conducted with the Ministry of Education[166]. While school health plays a significant role in disease prevention, primary care at the community level, and fostering healthy habits among children from an early age, it is currently considered inappropriate to support these activities. This is due to the overwhelming shortage of nurses in health facilities and the absence of coordination with the Ministry of Education, which oversees school education.

(2) Needs Identified through the Survey

The following points summarize the requests made by Bangladesh officials during the survey period, as well as needs identified in the survey:

(a) Construction of PPP facilities for nursing and midwifery education in six locations: Chattogram, Mymensingh, Bogra (Rajshahi District), Rajshahi, Sylhet, and Rampur[167]. (Draft request dated January 13, 2025)

(b) Proposed requests for support as expressed during the DGNM interview in February 2025.

(c) Improvement in the quality of nursing college faculty education based on current situation, as indicated by field observation results.

Table 6-15: Proposed Request for Support as of February 2025

Item	Cost（Lakh/Taka）	Cost (Yen)[168]
Office accessories for Nurse Managers in Government Hospitals	5260	394,291,026

[165] In Bangladesh, a total of 23 school health clinics (as of June 2023) have been established with doctors, pharmacists, etc., but no nurses. (Based on interviews with trainees participating in the JICA training "School Health" in 2023.)

[166] Based on the interview with DGNM on 29 January 2025

[167] Approximate cost is BDT 90,000 Lakh

[168] Calculated based on the JICA rate of January 2025

Office Management Training for the DPHN, AD, Nursing Superintendent	105	7,870,828
Post Graduate Diploma (PGD) Policy Guideline Development Workshop	15	1,124,404
PGD Curriculum Development Workshop	300	22,488,081
Specialized Clinical Nursing Training	900	67,464,244
Overseas Short Training and Exposure Visit for Top Managements	1000	74,960,271
Overseas Short Training and Exposure Visit for Nursing Teachers	1000	74,960,271
Overseas Short Training and Exposure Visit for Hospital Nurses	1000	74,960,271
E-library Development at Nursing Colleges and Nursing Institutes	2000	149,920,542
Scholarship for Nurses in Master's Program	200	14,992,054
Audio Visual Equipment in Nursing Colleges and Nursing Institutes	7000	524,721,897
Vehicle for Nursing Colleges and Nursing Institutes	2100	157,416,569
Teaching Learning Materials (AI-based lab mannequins etc.)	800	59,968,217
Establish Career Counselling Center at Nursing Colleges and Nursing Institutes	200	14,992,054
Computer (Desktop and Laptop)	300	22,488,081
Equipment for DPHN and Divisional AD	720	53,971,395

Source: Created by the Survey Team based on MoHFW document

Among the above three items, the requests by Bangladesh officials ((a) and (b)), can be classified as follows: (1) Establishment of a higher education institution for nursing and midwifery education, (2) Office space and equipment for nursing administration in each administrative district, (3) Overseas training and scholarships, (4) Postgraduate diploma and specialized training system, (5) Support for library; e-library, facilities, and equipment for educational facilities, (6) Lab equipment, and (7) Career development.

Table 6-16 shows the relevant sections of the NME and NMS OP of the 5th HPNSP and their correspondence to these requests.

Table 6-16: Requests and Correspondence Identified in the Survey

Request from Bangladesh officials	Relevant OP	Correspondence
Establishment of a higher education institution for nursing and midwifery education	N.A.	With no prospects for a significant increase in the number of faculty members in the near future, improving the quality of education at the nursing college level is the priority, thus support for higher education is out of consideration.
Office space and equipment for nursing administration in each administrative district	OP 23, Component 6, Activity 2, 3, 4 OP 34, Component 5: Activity 1	The procurement of equipment to provide DGNM's administrative function in each district level is not suitable for JICA support.
Overseas training and scholarships	OP 34, Component 2: Activity 2	Nurse management training can be considered as part of continuous professional development. Expenses related to overseas training may be considered in technical cooperation projects as part of activities to improving the quality of education and services after the number of nursing faculty members and clinical nursing managers increase in the future.
Post-graduate diploma and specialized training system	OP 23, Component 2: Activity 7 Component 3: Activity 1 OP 34, Component 2: Activity 8	Based on interviews with clinical nurses through this survey, some expressed the need for training/learning centered on clinical practice by experts in the field at specialized hospitals, since faculty members in nursing colleges are not necessarily highly specialized in the relevant fields with regard to professional skills. With the limited number of faculty members, it is necessary to focus on improving the quality of basic nursing education at the undergraduate level, thus specialized education is an issue to be considered in the future.
Support for Library and e-library	OP 34, Component 4: Activity 4	Strengthening of the library system is not suitable for JICA support
Lab equipment	OP 34. Component 4: Activity 5	Based on observation of several nursing colleges, it was confirmed that the lab equipment is limited in number and outdated. Some nursing colleges were unable to install equipment due to insufficient space. In some cases, the installed training equipment was not being utilized. Concerns were also expressed that it would take time to effectively use simulation equipment, as teachers need training on how to use operate and manage it. This would increase their workload, especially given the current shortage of faculty. The limitation number and space for classroom requires renovation and could be considered in future.
Career development	OP 23, Component 1: Activity 1 OP 34, Component 1: Activity 2	After approval of the revised organogram, recruitment rules, and job descriptions submitted in December 2024, it can be considered to be included as part of the responsibilities of the proposed policy advisor, based on the revision.

Source: Created by the Survey Team

As described in Section 6.6, Analysis on Development Assistant Approaches to Produce Nurses with Improved Quality, the necessity to improve the quality of education provided by nursing college faculty was confirmed through field observations (c). While activities related to developing subject-based teaching modules and subject-based training are included in Component 2, Activities 4 and 5 in the NME OP, it is necessary to ensure first that teachers are capable of effectively teaching all subjects in the current curriculum, in accordance with the context of Bangladesh. Considering the current shortage of teachers, many are required to teach various subjects, including those outside their own specialties. To address this situation, it is necessary to enable teachers with effective teaching methods and enable them to accurately convey main points across all subjects. Therefore, developing teaching materials to support teachers is necessary to improve the overall quality of education.

Alongside the development of teaching materials, it is also possible to develop SOPs, which are directly related to improving nursing services in clinical settings. Currently, there are no nursing manuals or SOPs in public health facilities. The faculty teaching at nursing colleges includes experienced nurses. However, since the backgrounds of nurses working in the public sector vary in terms of years since graduation and clinical experience, it is assumed that the nursing care they provide is largely based on individual experiences at their respective health facilities due to the absence of SOPs. As a result, standardized nursing care is not consistently provided, and nurses lack a unified understanding of care practices. Therefore, the introduction of SOPs will help ensure that all nurses share a common understanding of the content, scope, and procedures of standardized nursing care, thereby contributing to quality assurance. Activities related to SOP development are included in NMS OP 23, Component 1 and 7. The number of health facilities that develop, introduce, and implement SOPs for nursing care is set as an indicator in the NMS OP. This suggests a high level of needs and expectation for the introduction of SOPs in the field. As the development of SOPs is expected to improve the quality of nursing services, it can be developed alongside the development of teaching materials aimed at improving the quality of education.

With regard to nursing education, the DDP-based facility construction list submitted by HED includes the reconstruction of nursing student dormitories and related facilities. The CBNS-II baseline survey indicates that student dormitories, especially at the nursing colleges in Rajshahi and Rangpur, were poorly rated, and early renovation is therefore expected. The reconstruction of these dormitories would also contribute to improving the environment for quality education. Details regarding the construction of nursing student dormitories and related facilities are discussed in Chapter 7.

6.8 Preconditions for the Proposed JICA's Cooperation

The following are preconditions for JICA's cooperation in providing assistance. These are important issues that form the foundation for appropriate activities in the nursing sector, and it would be meaningful to take measures to address them in the next project.

(1) Organogram, Recruitment Policy, and Job Descriptions Approved

The DGNM compiled a draft revision of the organogram, recruitment rules, and job descriptions, which were submitted to the MoHFW in December 2024 and are currently under review as of February 2025. The proposed organogram also outlines an increase in the capacity of each department. In a situation of severe staff shortages,

it is essential that the organogram is also approved by the MoPA and the MOF, and that actual recruitment activities are undertaken to increase opportunities for employment in both nursing services and nursing education. Survey findings also suggest that the lack of clear definitions and job descriptions for nurses in Bangladesh may be a contributing factor to the limited nature of their work. One relevant source that can be referred to is the preface of the WHO-supported BSC Nursing Curriculum and Nursing Diploma Curriculum published in 2006; however, this sentence was removed in the revised version of the curriculum in 2018.

Clarifying employment terms, job descriptions, and regulations will also help define roles such as Master Trainer (MT) and Clinical Nurse Teacher (CNT), which have been supported by JICA. A fundamental issue in the nursing sector is the lack of a clear definition of the scope of nursing practice.

> Nursing assists clients—individuals, families and communities (i.e., aggregates of people within communities)—in attaining physical, mental, social, and spiritual well-being. It involves a dynamic interaction between the client and the nurse, aimed at promoting, maintaining, and restoring optimal health in collaboration with other health team members. Nursing also encourages the involvement of clients and their significant others in care, fostering self-reliance and promoting modification of health behaviors. Nurses use the nursing process to identify clients' needs or problems in responses to actual or potential health problems. This includes planning for nursing interventions, intervening, and evaluating responses. Nurses deliver community-oriented nursing care, taking into account clients' community context. Critical thinking forms the basis of nursing practice, enabling nurses to apply their knowledge within an ethical and legal framework in practice. (Curriculum for B.Sc. in Nursing, 2006, Bangladesh Nursing Counsil, p. 10)

(2) Making the Institutional Accreditation System Mandatory

The institutional accreditation system developed with JICA support is not yet legally binding, and its relevance is being questioned. To improve the quality of nursing education, it is essential that the accreditation system be made mandatory. Urgent political action is needed to achieve this. Additionally, it is necessary to discuss whether, in future, (i) institutions that do not meet the evaluation criteria should face consequences, such as temporary suspension of student admission, or (ii) a system should be established—similar to Japan's—where certified excellent schools receive subsidies and other incentives.

(3) Increasing Employment Opportunities for Nurses and Eliminating Nursing Vacancies

Under the current hospital staffing standards, chronic staff shortages have resulted in a heavy workload for nurses, creating a bottleneck in improving the quality of both services and nursing education. These conditions consume time and capacity that health professionals in the field should otherwise have, negatively affecting hospital-based practices for nursing students and other trainings for nurses. Although an increase in personnel through the revision of regulations can be expected to some extent through the approval of the proposed organogram in December 2024, this cannot be achieved by the MoHFW alone, and an actual increase in personnel is not easy to achieve in the near future. Thus, as a transitional measure until the number of nursing posts in each health facility is expanded, filling vacant positions is considered as a practical solution. In addition, if nurses are to continue being employed

as civil servants, flexible recruitment is difficult due to strict budgetary restrictions within the framework of the national budget. In the future, it may be necessary to consider a system that can flexibly address staff shortages by introducing a self-financing mechanism for public health institutions. This mechanism would provide financial allowances to enable them to recruit nurses who are not civil servants, according on the specific needs of each facility.

(4) Appropriate Career Development System for Nurses

The vacancy rate for Grade 10 teachers in public nursing education institutions is 2%; however, the vacancy rate for teaching positions from Grades 4 to 9 rises sharply to 63% as the position increases. It is also important that administrative structures—such as promotion systems, career advancement pathways, and salary regulations—to ensure appropriate career development for nurses.

6.9 Analysis of Assistance Approaches for Technical Cooperation Projects

Based on the current status of nursing services and education, existing projects, and the 5th HPNSP—as revealed by the existing data and interview survey results—the following components are proposed as the future direction of JICA's cooperation. The following items are prioritized based on the present condition and the perspective of reducing the gap between the current and ideal state of nursing services. Items 1 to 5 below refer to support that should be provided under the current circumstances and are feasible for implementation on a DPP basis. Items 6 and 7 involve institutional improvements. Item 8, on the other hand, should be introduced only after the quality and standards of nursing education have improved to a certain extent through the implementation of items 1 to 3, and is more therefore more appropriate for medium- to long-term implementation.

Proposal 1：Development of Educational Materials and Teachers' Guide for Nursing Education

According to the results of the JICA project (CBNS-II) baseline survey involving ten target universities, several institutions may not be providing education with sufficient quality assurance. In addition, there are fundamental problems affecting the quality of education, such as many nursing college lecturers teaching without specific expertise, and some relying on video materials instead of practical training. As these lecturers are also civil servants, the number of instructors are not expected to increase dramatically to fill the current vacancy rate of 63%. To cope with the situation, one the most beneficial way would be to develop standardized teaching materials and teachers' guides, especially for the core subjects in nursing education.

Proposal 2：Development of Manuals and Standard Operating Procedures (SOPs) for Nursing

As of February 2025, there are no official manuals or SOPs for nursing in public healthcare institutions. The introduction of SOPs would standardize nursing care across individuals and organizations, contributing to the quality assurance of nursing services. In the NMS OP, indicators related to SOPs for nursing care are introduced, reflecting both the recognized need and the high expectations for the introduction of SOPs in the field.

Proposal 3：Strengthening Subject-based Nursing Education

The JICA projects (CBNS-I and CBNS-II) aim to support the strengthening of subject-based nursing education.

In addition, the enhancing of nursing specialties is mentioned in the 5th HPNSP. Improving subject-based nursing education is just as important as developing nursing education materials, as it strengthens the capacity of nursing college instructors, which in return improves the overall quality of nursing education. Developing a system and framework for providing subject-based instruction—with effective collaboration between teaching staff and trainers involved in master's programs at nursing colleges—will enable to foster opportunities to develop more extensive, advanced, and qualified education. This will ultimately contribute to improving the quality of nursing services.

Proposal 4：Strengthening Continuous Professional Development for Nurses

There are limited opportunities for employed nurses to improve their practical skills. In the context of staff shortages, increasing training opportunities to improve the competence of employed nurses and the quality of nursing services can be considered a practical way to improve this situation. Just like the two wheels of a vehicle, support for improving the working environment of frontline workers is also required. In addition to improvements in the management of healthcare facilities, separate support for operational improvements needs to be provided. Moreover, CPD should incorporate perspectives on operational and management improvements in the field.

Proposal 5：Development of Specialized Clinical Nurses

In the 5th HPNSP, the activity of providing specialized training for employed nurses in various specialties, and educational programs for each specialty, is mentioned in the NMS OP. Despite this, daily nursing services have not been adequately provided due to staff shortages, and the total number of nurses is not expected to increase in the short term across many public health facilities. It is a concern that training specialized clinical nurses may also lead to a decrease in frontline workforce. Therefore, it is essential to increase the number of nurses and ensure they possess the required level of medical knowledge and qualified service delivery skills before developing specialized clinical nurses to provide more advanced care. In this case, support should be carefully initiated through pilot activities, including the design of curricula and other educational content, the development of an implementation framework for specialized education, and the establishment of implementation system in host hospitals and other institutions.

Proposal 6：Support for Establishing Appropriate Institutional Accreditation System of Nursing and Midwifery Educational Institutions

Previous and ongoing JICA projects (CBNS-I and CBNS-II) have continued to support the target public nursing colleges in obtaining accreditation. Promoting accreditation is also included as one of the activities in the 5th HPNSP OP. However, the number of accredited institutions has not yet increased due to the cumbersome accreditation process, the limited capacity of the BNMC, and the lack of incentives for institutions to pursue accreditation, as there are no penalties or disadvantages for not being accredited. While the quality of nursing education institutions has become an issue due to the large increase of private nursing education institutions in recent years, there is a tendency for newly graduated nurses with no clinical experience to find employment in private nursing institutions, given the limited employment opportunities in the government sector. This situation

is likely to further worsen the quality of education, especially in private institutes. Considering the current situation, it is necessary to expand support for BNMC to strengthen its capacity as well as to consider regulations that would make accreditation mandatory.

Proposal 7：Support for Learning Environment for Practical Training of Nurses

Facilities and equipment available to nurses in health facilities remain limited, and regional training centers for employed nurses also face equipment shortages. Additionally, there have been requests for simulation lab and equipment for nurses working in intensive care units that provide advanced medical care. To strengthen the training system, it is necessary to provide an environment where nurses can learn and practice nursing skills, including the appropriate use of medical equipment. In such case, practical training should be supervised by qualified instructors.

Proposal 8：Establish a CPD System Including Promotions and Career Progression Steps for Nurses

Currently, most nurses in the public sector remain at Grade 10. As a result, even those with many years of experience and enhanced skills receive same salary as newly employed nurses. In addition, over 60% of vacancies in the nursing sector are higher than Grade 9. At present, there is no structured mechanism to motivate employed nurses to improve the quality of nursing services. In general, promotion system based on seniority or performance evaluation serve to motivate the employee to work harder and improve their skills. Establishing such a mechanism within the MoHFW is essential to improve the efficiency and vitality of the organization as a whole. To address this, support will be provided for the introduction or improvement of the promotion system, as needed. This support will be extended following the confirmation the contents of the organogram, recruitment rules, and job descriptions submitted by MEFWD to MoHFW last December.

Chapter 7 Current Needs and State Analysis on Large-scaled Infrastructure

7.1 Challenges and Needs for Physical Facility Development in the Fifth HPNSP

In the 5th Health Population and Nutrition Sector Program (5th HPNSP), both Health Service Division (HSD) and Medical Education and Family Welfare Division (MEFWD) include Operation Plans (OPs) for the construction and renovation of health facilities, namely, Physical Facility Development of Health Services (PFD-HS) and Physical Facility Development-Medical Education and Family Welfare Division (PFD-MEFWD), respectively. The OP in the 4th HPNSP has been split into two OPs in the 5th HPNSP due to the organizational polarization of HSD and MEFWD in 2017. The Public Works Department – Operational Plan (PWD-OP) has the largest budget allocation within the HPNSP budget and covers many facilities, indicating the OP as an important position of the policy. The objectives of both OPs are aligned and include: (1) the construction of new facilities to expand health services; (2) the upgrading of existing facilities; (3) the development of comprehensive operational plans for repairs and maintenance; and (4) the strengthening of coordination with related OPs to ensure the timely operation of newly constructed buildings. However, the targeted facilities of HSD and MEFWD are different medical facilities and educational institutions as shown in Table 7-1.

Table 7-1: Outline of PFD-OP

HSD		MEFWD	
Component1: Construction & Reconstruction	Construction of new 20-bed and 50-bed hospitals in newly established or river erosion-affected districts, construction of 10-bed hospitals and outdoor clinics at the prefectural level, construction of medical complexes and garages for existing medical complexes, construction of water purification plants, buildings for 31-bed hospitals, residential areas for medical staff, reconstruction of union-level health sub-centers, reconstruction of pump houses for medical complexes, and reconstruction of community clinics.	Component1: Construction & Reconstruction	Construction of facilities for newly established medical universities, enhancement of facilities for nursing and midwifery institutes at 84 locations, construction of one 50-bed maternal and child welfare center, five 20-bed centers, and seventy-six 10-bed centers, construction of 368 district health and family welfare centers, 27 nursing universities, 16 nursing colleges, 46 regional population training institutes, 87 regional training centers, 23 medical technology institutes, 21 medical assistant training schools, and 270 district family planning offices. Reconstruction of 2 medical technology institutes, 18 medical assistant training schools, 18 regional population training centers, 36 regional training centers, 6 nursing universities, 25 nursing colleges, and 4 medical universities.
Component2: Upgrading & Expansion	Expansion of 10-bed, 20-bed, and 31-bed hospitals into 50-bed hospitals, and the establishment of one-stop emergency centers, warehouses, and conference rooms in these hospitals. Increasing the capacity of 50-bed hospitals to 100 beds. The main focus of the expansion is the vertical extension of existing facilities.	Component2: Upgrading & Expansion	Vertical expansion of academic facilities, dormitories, office buildings, and other facilities at 59 medical education institutions. Renovation of four facilities at Sher-e-Bangla Medical University in Barishal, upgrading of 26 maternal and child welfare centers, 68 district health and welfare centers, 2 regional population training institutes, 6 regional training centers, and 3 nursing universities. Expansion of NIPORT in Bhaban. Upgrading of 8 ten-bed maternal and child welfare centers, 11 district health and welfare centers, 3 medical technology institutes, 5 regional population training schools, 5 regional training centers, 20 nursing universities, 17 nursing colleges, and expansion of 76 facilities under DGFP and DGME.
Component3: Repairement, Renovation	Addressing the maintenance needs of approximately 17,000 existing facilities and 100 facilities to be constructed in the near future.	Component3: Completion of under-going constructions	Completion of 4 medical universities, 1 medical technology institute, and 1 nursing college. Completion of 56 facilities initiated under the 4th HPNSP.
Component4: Completion of constructions under the 4th HPNSP	Completion of PWD-implemented facilities initiated under the 4th HPNSP.	Component4: Capacity Development	Capacity development of HED staffs
		Component5: Monitoring & Coordination	Strengthening coordination with other OPs of DGFP and DGNM.

Source: Created by the Survey Team based on the 5th HPNSP

The implementation of PFD-OP is determined by the Public Works Department (PWD) of the Ministry of Housing and Public Works and the Health Engineering Department (here in after "HED") of the Ministry of Health and Family Welfare (MoHFW) based on the scale of the facilities. It is considered that coordinated program is critical for facility improvement with immediate placement of medical personnel and the timely supply of pharmaceuticals and consumables. However, significant delays, often exceeding eight months or more, have occurred compared with the original implementation plan. Since the start of the OP, OP-PFD has continued to face major challenges in delivering appropriate services due to persistent shortages of health personnel and medical equipment.

PWD and HED are responsible only for the renovation, expansion, and construction of new facilities, while the procurement of medical equipment for these facilities is carried out by another department, which is the Central Medical Stores Depot (CMSD). The jurisdiction difference of the departments in-charge has led to frequent issues such as difficulties in the installation of equipment. The Mid-Term Review (MTR) of the 4th HPNSP pointed out that facility construction and subsequent personnel placement and equipment installation have not been coordinated. On the other hand, it has been confirmed in the field survey that the number of daily visits is extremely high in all primary to tertiary health facilities, regardless of whether they are in urban or rural areas.

Patients in critical or severe condition tend to gravitate towards urban tertiary-level hospitals due to the following reasons: (1) provided medical services at secondary-level hospitals in their residential areas are limited, (2) the referral system is not well-established in the healthcare system, and (3) patient perception that health problems can be resolved at once in tertiary medical facilities. Although the establishment of a referral system needs to be improved concurrently, the tertiary-level hospitals, where many patients are currently concentrated, face the following challenges and needs.

Challenges	➢ Patients and accompanying family members are overflowing in hospital rooms, corridors, and waiting areas. ➢ Due to repeated random expansions, there is unnecessary increase in required time of patient transfer between departments and testing rooms that should be adjacent. ➢ The flow from reception to payment is not considered, causing unrestricted movement in all directions. ➢ Inappropriate maintenance of electrical wiring and plumbing leads to fires, water leaks, and deterioration of facilities. ➢ Risk of hospital-acquired infections: Zoning is not implemented, unclear separation of restricted areas and others, unnecessary contact occurs between outpatients, their families, and inpatients.
Needs	➢ Development of hospital rooms that can adequately accommodate patients and accompanying family members (especially in pediatric hospitals) ➢ Establishment of a hospital system (e.g.: calling patients by their consultation numbers by installing IT applications) ➢ Improvement of unsanitary environments (e.g.: restrooms) ➢ Segregation of pathways for medical staff and outpatients ➢ Placement of large elevators for patients requiring stretchers ➢ Provision of advanced medical services using cutting-edge medical equipment

In contrast to the current state of tertiary medical facilities, the healthcare facilities targeted by the PFD-OP in the 5th HPNSP are mostly secondary-level or lower. While there are some reconstructions, the focus is primarily on new constructions, bed expansions, and upgrades to increase capacity. As confirmed through the field survey, the expansion of healthcare facilities faces challenges in the timely placement of medical personnel and the supply of pharmaceuticals. Additionally, there is a reality that the increase in medical personnel does not match with new construction of facilities. Thus, it is concluded that, from the perspective of improving the current situation, it is more appropriate and reasonable that reconstructing or expanding existing medical facilities to be utilized immediately after completion by existing personnel, rather than newly constructing facility and having risk on non-assignment of medical staff. Therefore, the proposed projects by this survey focus not on the construction of new medical facilities, but on the reconstruction, expansion, and renovation of existing medical facilities. Initially, the Survey Team considered selecting targets for reconstruction from the PFD-OP list, but because of the above considerations, it is determined that improving the facilities, equipment, and medical devices of tertiary hospitals with the issues and needs mentioned above would lead to a better improvement of the current situation.

7.2 Development Project Proposals Other Than Sector Programs

Table 7-2: List of DPP Projects

1	Bangladesh Shishu Hospital and Institute Expansion Phase 2 (2023-25)
2	Mental Hospital Pabna – International Standard (2024-25)
3	Expansion of Sir Salimullah Medical College Hospital (2024-27)
4	Liver transplant Unit under National Gastroliver Institute and Hospital (2024-26)
5	Expansion of Sylhet MAG Osmani Medical College Hospital (2024-27)
6	Strengthening of all Upazila Health Complex (2024-27)
7	Rangmati Medical College Hospital and Nursing College (2024-27)
8	Nirphamari Medical College Hospital and Nursing College (2024-27)
9	Dhaka Medical College Hospital Modernization (2024-27)
10	Strengthening of all General Hospital (2024-27)
11	Establishment of National Health Academy (2024-27)
12	NICVD, Sher-e-Bangla, Nagar Dhaka Academy Building and Middle Block Expansion
13	Feasibility Study of Mohakhali Shasto Nagari (Urban Health) Implementation (Mar-Oct 2024)
14	Government Unani and Herbal Medical College Homeopath Medical College at Mirpur, Dhaka (2024-27)
15	Establishment of the National Institute of Physical Medicine and Rehabilitation Hospital (NIPMR)

Source：The Survey Team based on the document provided by the MoHFW[169]

Moreover, during the field survey, the Survey Team requested HSD to submit a list of DPP-based projects, and HED provided the Survey Team a DPP list related to MEFWD. The DPP list of MEFWD mainly consists of construction of new facilities and expansion of existing facilities, and reconstruction candidates are primarily nursing universities and nursing schools. From the list, the Survey Team has selected medical facilities related to previous Japan International Cooperation Agency (JICA) projects as shown in Table 7-3.

Table 7-3: List of DPP Candidate Projects added by HED

1	Re-construction of Old Female Hostel (Concept) at Nursing College in Chattogram
2	Construction of Administrative and Academic Building at Nursing and Midwifery College in Cumilla District
3	Construction of Four-story Hostel Building (200 students) at Nursing and Midwifery College in Cumilla District
4	Re-construction of Old Administrative Building and Hostel at Rajshahi Nursing College in Rajshahi District
5	Re-construction of Female Hostel Bhaban-1 and Bhaban-2 at Barishal Nursing College in Barishal District
6	Construction of Female Hostel and Other Remaining Works of Nursing College in Mymensingh District

Source: Created by the Survey Team based on the document provided by the MoHFW[170]

[169] Created by the Survey Team based on the information of Health Service Division
[170] The Survey Team based on the documents provided the Health Service Division

7.3 Consideration for Facility Development Projects with Evaluation of Cost-effectiveness

In the capital city of Dhaka, the influx of people from rural areas has led to population growth and concentration. Along with dietary imbalances, air pollution, and an increase in the impoverished population, the number of patients suffering from health issues is rising annually. In public hospitals, general consultation or hospitalization fees are free for impoverished patients, and medical facilities are operated based on budget allocations formulated by the MoHFW, and it leads to chronic funding shortages. As a result, almost all medical facilities, from primary Upazila Health Complexes (UzHCs) to tertiary public specialized hospitals, are unable to improve the quality of medical services. Even in large hospitals in and around Dhaka, more patients are accommodated than the number of beds available, with more than half lying on the floor. Additionally, the Survey Team has observed that there are patients lying in hallways and elevator halls receiving treatments such as IV drips. These conditions urgently need improvement from the perspectives of smooth patient movement within the hospital, medical staff workflow, and safety. The aging of facilities was similarly confirmed in all medical facilities, with cracks in columns, water leakage from ceilings, and concrete spalling observed. Furthermore, although earthquakes do not occur as frequently in Bangladesh compared with Japan, they do occur over several decades, and considering the age of the medical facilities, the medical facilities are not in a safe condition. The referral and counter-referral system between primary facilities in rural areas and secondary facilities in state capitals or higher-level medical facilities concentrated in the capital city of Dhaka has not been established. Additionally, there is no public emergency transport service, and patients and their families sometimes visit higher-level facilities for consultations and treatments based on their own preference or judgment, even when it is unnecessary. This has led to a concentration of patients in certain medical facilities. Tertiary medical facilities are generally not allowed to refuse visiting patients, which also contributes to the congestion of these facilities. All hospitals under the MoHFW are public hospitals operated on an allocated budget, and the independent income of tertiary hospitals is limited to a few areas such as blood transfusions. Under such a system, financial effects cannot be measured, and only economic effects based on assumptions can be calculated. However, from the perspective of alleviating this concentration and improving the quality of medical services that higher-level medical facilities are supposed to provide, improving the current situation of tertiary medical facilities is considered to have extremely high cost-effectiveness. In primary and secondary hospitals that chronically receive patients, improving the functionality of aging facilities and enhancing the capabilities to appropriately conduct examinations and diagnoses for complex diseases/symptoms are considered to have high cost-effectiveness in both hardware and software aspects. However, as repeatedly mentioned, the construction of new facilities, expansions, and functional improvements of higher-level medical facilities always face the challenge of allocation of medical personnel. This point is not included in the calculation of economic effects, and thus should not be judged solely from the perspective of high cost-effectiveness.

7.3.1 Current Status and Challenges of Candidate Hospital

Among the DPP projects listed in Table 7-2, there are six medical facilities in or near Dhaka City identified as items 1, 3, 4, 9, 12, and 15, although the exact locations of some facilities are unknown or undecided. Therefore,

the Survey Team conducted a field survey focusing on these facilities, confirming the general overview of the hospitals, project plans, properties, and the equipment status and its needs. Furthermore, the Survey Team conducted a field survey on Narsingdi Sadar Hospital (NSH) that was not included the list shown on table 7-2, which is because JICA has continuously supported NSH and to seek the feasibility of enhancing the hospital function.

(1) Bangladesh Shishu Hospital and Institute（BSHI）

BSHI was established in March 1972, following the liberation of Bangladesh, with the support of volunteer organizations and the Bangladesh government, as the country's only children's hospital. The academic division, Bangladesh Institute of Child Health (BICH), was established in January 1983. The names Dhaka Shishu (Children's) Hospital and Bangladesh Institute of Child Health were changed to Bangladesh Shishu Hospital and Institute (BSHI) following the enactment of the Bangladesh Shishu Hospital and Institute Act (Act No. 19 of 2021) on 22 September 2021. BSHI is the largest children's hospital in Bangladesh, with a capacity of 681 beds, providing a wide range of clinical services for children. As a result, it functions as a central hospital where pediatric patients requiring complex treatments are referred from regional hospitals across Bangladesh. Additionally, people from low-income groups come from all over the country to receive better treatment at minimal cost. The influx of patients requiring critical and specialized treatment is extremely high, causing overcrowding in the wards and emergency rooms, which leads to long waiting times and affects the quality of care. Units such as the neonatal intensive care unit (NICU) and pediatric intensive care unit (PICU) are often fully occupied, resulting in a situation where critically ill children cannot receive intensive care.

		
The front gate and sidewalks of the hospital are crowded with various street vendors.	The single-story building for OPD, scheduled to be demolished for the new construction.	The cardiology ICU has become unusable due to an electrical fire, likely caused by overcurrent, leakage, or tracking.
		
The front outside area of the hospital is crowded with patients.	In the pediatric ward, unit consists of 8 to 12 beds in a room.	Defects such as water leakage and concrete cracks are noticeable due to the aging of the facility,

1) Operational Status

Departments	Internal Medicine, Dermatology, Maxillofacial Surgery, Dentistry, Neurosurgery, Orthopedics, Pediatric Surgery, Urology, Postnatal Care, MDR Tuberculosis, General Tuberculosis, Pediatric Emergency, Cardiology, Psychiatry, Neonatology, Pediatric Neurology, Cardiology, Pulmonology, Gastroenterology, Nephrology, Rheumatology, Infectious Diseases, Epidemiology and Research, Adolescent Pediatrics, Hematology and Oncology, Neonatal Surgery, Burns, Pediatric Cardiac Surgery, Thoracic Surgery
Human Resources	Doctor：266、Nurse：421、Administrations：50、Others：581
Beds	681beds (Paying: 428, Non-paying: 253)
ICU and NICU	46 and 16 beds
In- and Out-patients	40,124 and 38,217（charged：28,486 人、free of charge：11,638 人）
Duration of Average In-hospitalization	5.6 days
Performance Indicators for 2024	- Outpatient visits: 320,660 - Number of surgeries: 4,094 - Emergency patients: 100,993 - Patients referred from other hospitals: 45,500
Disease Structure	① Perinatal asphyxia, neonatal sepsis, premature infants ② Pneumonia, diarrhea, dengue fever ③ Intestinal obstruction, congenital anomalies

Source: Survey Team

2) Financial Status（Operating Incomes and Expenses）

Fiscal Year	Expense（BDT in Crore）					Income (BDT in Crore)	Balance
	Labor Cost	Consumables	Maintenance	Others	Total		
2021-2022	57.69	17.15	1.32	14.63	90.79	91.92	1.13
2022-2023	57.14	18.10	1.23	15.58	92.05	93.93	1.88
2023-2024	67.09	22.34	77.78	7.37	174.58	91.00	△83.58

July - June considered as fiscal year in Bangladesh

Source: Survey Team

3) Facility Conditions

The hospital facilities consist of Block-A (a four-story building) constructed in 1977, Block-B (a six-story building), and Block-C (a three-story building). Additionally, there is an outpatient clinic facility and a nurse dormitory in Block-C (a three-story building) constructed in 2012. Due to expansion, the interior of the hospital is dimly lit and has a complex layout, making it difficult to navigate to the desired locations. Furthermore, necessary infection control and air conditioning (negative pressure) management are not implemented as generally required for hospital facilities.



Figure 7-1: Birds-eye View of BSHI

Upon visual inspection of the facility, it was found that many areas are not well-maintained, and dangerous damage was observed. The infrastructure, including electrical and plumbing systems, is also aging and requires updating. The hospital relies on government funding due to the lack of approval to utilize its own revenue, leading to budget shortages that affect facility maintenance, equipment upgrades, purchase of consumables, and staff employment, thereby impacting hospital operations. If left unaddressed, structural risks will increase. Block A of the existing facilities has been identified by Bangladesh University of Engineering and Technology's (BUET) aging assessment as problematic for continued use due to its deterioration. However, since this assessment remains a recommendation, the facility continues to be used. Given these circumstances, the urgency for rebuilding the hospital is deemed high.

4) Existing Medical Equipment and the Conditions

BSHI owns only one X-ray machine and three ultrasound diagnostic devices, and despite being a specialized tertiary facility for pediatrics, BSHI does not have magnetic resonance imaging (MRI) or computed tomography (CT) scanners. However, rooms equipped with radiation protection for installing MRI and CT scanners are available in Block C. For patients at BSHI who require MRI or CT scans, the hospital requests imaging from nearby private clinics and bears the cost. BSHI owns one angiography device purchased in 2015. According to the Chief of Pediatric Cardiology Department, the angiography device had breakdowns and repairs a few years ago. Compared with the latest angiography devices, the angiography is inferior in terms of image accuracy and its high radiation exposure. It needs to be updated to ensure safe catheter operations on the narrow blood vessels of pediatric patients. The cardiology intensive care unit (ICU) has been out of service since 2024 due to fire caused by electrical short circuit.

5) Plan for Expansion and Reconstruction of Building in BSHI

BSHI has developed a facility improvement plan in response to the aging of existing facilities and the increasing demand. The first phase of the plan involves demolishing the single-story medical department on the premises and constructing a new hospital facility on the vacant lot previously used as a parking space. The medical services provided in the existing facilities will be relocated to the new facility. This plan was initially conceived before the coronavirus disease 2019 (COVID-19) pandemic, but due to the lack of funding, detailed planning has not been completed. According to the plan obtained from BSHI, a new hospital facility with two basement floors and twelve above-ground floors will be constructed, expanding the current number of beds from 681 to over 1,200. The specific layout of each floor has not yet been determined.

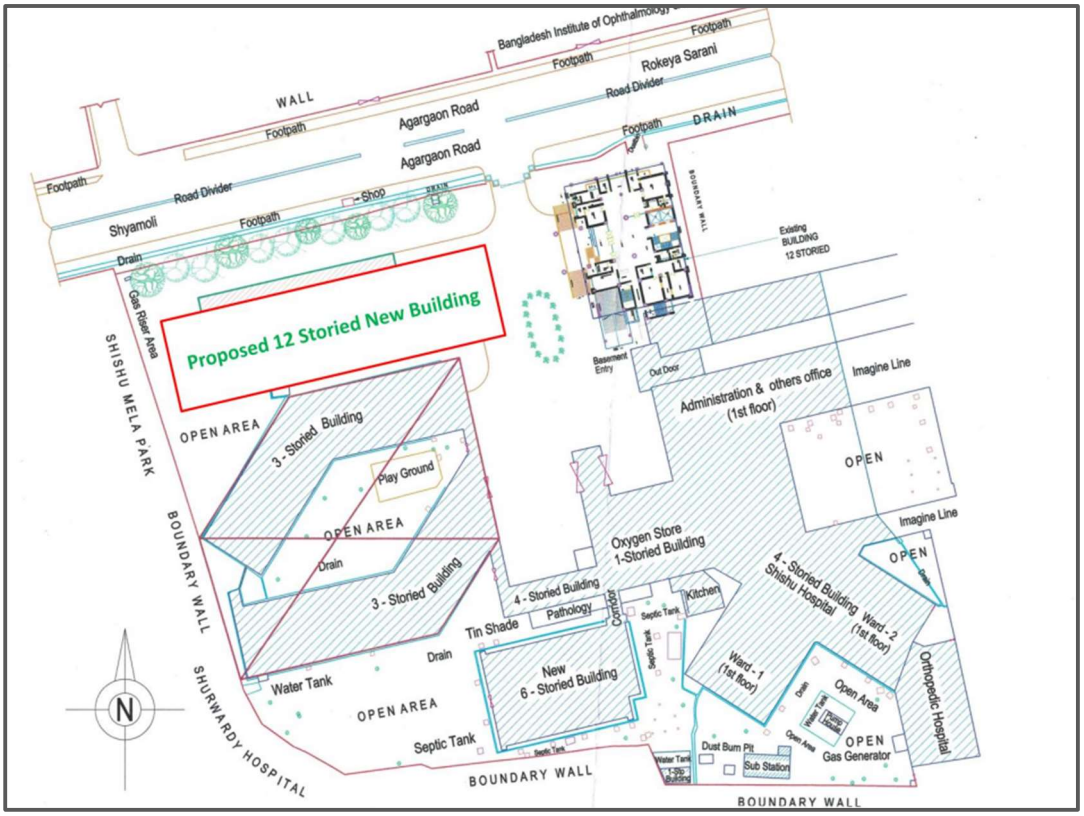


Figure 7-2: Facility Expansion Plan of BSHI

Source：BSHI

Facility outline for the expansion plan includes the following:

- Purpose: Medical department, patient rooms
- Floors: Two basement floors, 12 above-ground floors
- Structure: Reinforced concrete, pile foundation
- Total floor area: 68,543 m² (737,800 sq ft)
- Estimated cost (construction only): BDT 3,613,000,000 (approximately JPY 4.6 billion)
- Available land for construction: Yes (partial demolition of existing facilities required)
- Feasibility study: Not conducted

For medical equipment, MRI and CT will be installed in the planned building, to provide rapid and appropriate diagnosis and treatment for critically ill pediatric patients. The angiography equipment will be updated to enable accurate diagnosis and treatment.

(2) Sir Salimullah Medical College Hospital（SSMCH）

SSMCH, established in 1820, is in Old Dhaka, the most densely populated area of Dhaka along the Buriganga River in the southwest. It is the oldest hospital in Bangladesh and has an affiliated medical college. Currently, it is the second largest general hospital in Dhaka, after Dhaka Medical College Hospital, and serves as a regional core hospital. In 2018, SSMCH received 721,315 outpatients, with an average of about 2,500 outpatients per day. Additionally, 150,365 patients visited the Emergency Department, and the number of inpatients reached 354,474. These annual numbers of patients have been increasing, and the demand for patient beds in the existing facility has reached more than double. Due to the increasing demand, additional beds are placed in the corridors to accommodate patients. Therefore, it is crucial to expand the facility's capacity, enhance its functions, and upgrade and procure the necessary equipment.

		
The entrance area for the emergency department, separated from the general outpatient's entrance.	The emergency reception for new patients that is crowded 24/7.	Treatment room of incoming emergency procedures.
		
View from the courtyard shows the building in the back right, an eight-story outpatient building. The building on the right side, an 11-story main building.	Plan of construction, 18-story building, with demolishing existing building shown in the picture.	Pathway to SSMCH, narrow and crowded streets would require ingenuity for the access of loading/fleeing by trucks.

1) Operational Status

Departments	More than 20 departments as a general hospital
Human Resources	Doctor：371, Nurse：774, Other：489
Beds	900 beds
ICU and NICU	30 beds
Performance Indicators for 2024 (by month)	- Outpatient：73,660 - Operation：3,186（Major: 1,177、Minor: 2,009 ）
Disease Structure	① Diabetes, Hypertension ② Cerebrovascular Disease, Chronic Obstructive Pulmonary Disease (COPD) ③ Gallstones, Cancer

Source: Survey Team

2) Financial Status（Operating Incomes and Expenses）

Fiscal Year	Expense (BDT in Crore)					Income (BDT in Crore)
	Labor Cost	Consumables	Maintenance	Others	Total	
2021-2022	51.27	42.02	3.16	74.47	1,790.92	-
2022-2023	55.58	45.79	2.94	71.94	176.25	-
2023-2024	60.16	49.46	3.14	83.69	196.45	-

July- June considered as fiscal year in Bangladesh

Source: Survey Team

3) Facility Conditions

SSMCH is located in the densely populated area of Old Dhaka. Access to the hospital is via a narrow two-way road lined with shops on both sides, which is crowded with people and "rickshaw" daily, causing heavy traffic jams. It takes a considerable amount of time to pass through the approximately 200 meter-road to the hospital. SSMCH consists of the hospital block, medical college block, and accommodation block such as dormitories. The hospital department is located in the 11-story hospital ("02 " in Figure 7-3) completed in 1997, the eight-story Outpatient Department (OPD) ward, and the three-story ward ("01" in Figure 7-3) built in 1918, which are the main hospital facilities. The building "02" has a reception desk, and the hospital is overflowing with patients, but with more than 2,000 outpatients per day raising concerns about ensuring adequate medical services.

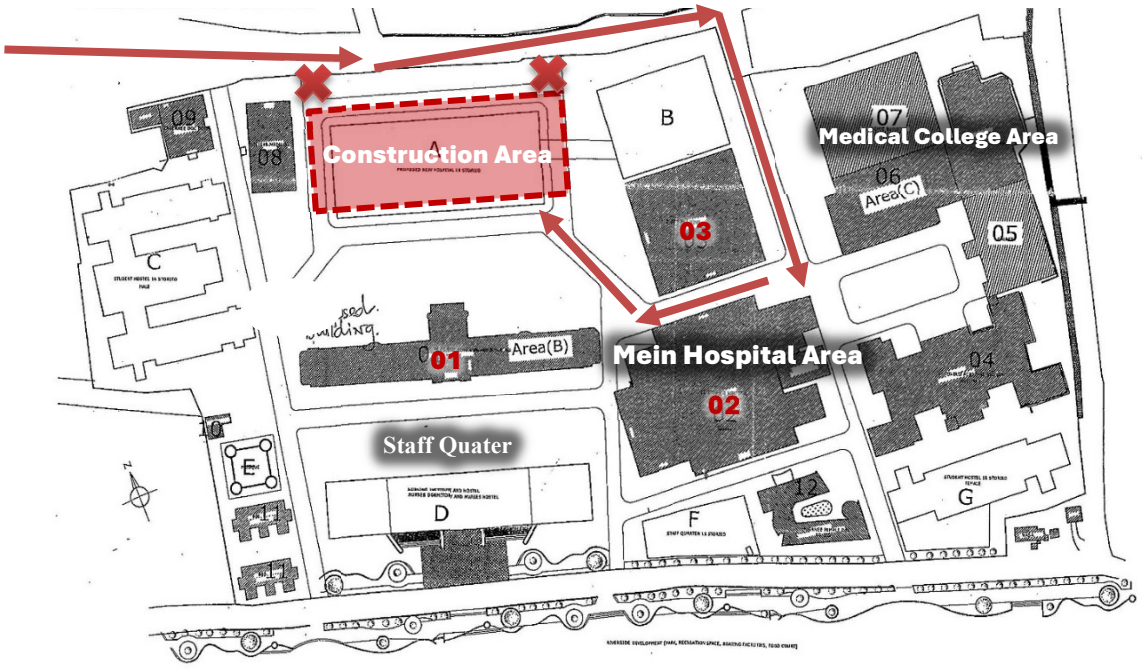


Figure 7-3: Overall Layout of SSMCH

Source: Provided by SSMCH

4) Existing Medical Equipment and the Conditions

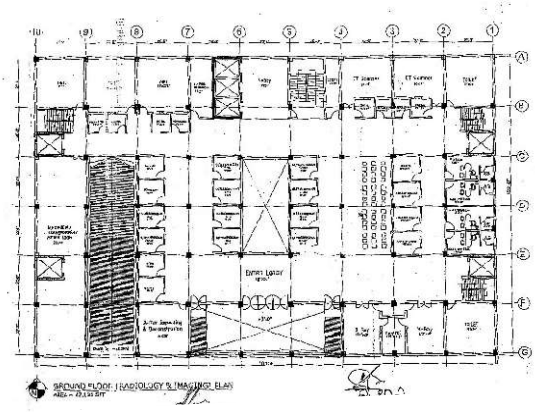
SSMCH has one MRI machine (Philips), one CT scan, and two X-ray machines (India ERBIS). All equipment, except the MRI, is under warranty/after-sales service. Each machine is being used more than 30 times a day,

indicating high usage frequency. As a general hospital, SSMCH receives up to 200,000 emergency patients annually, and the existing imaging equipment cannot meet the rapid diagnostic needs.

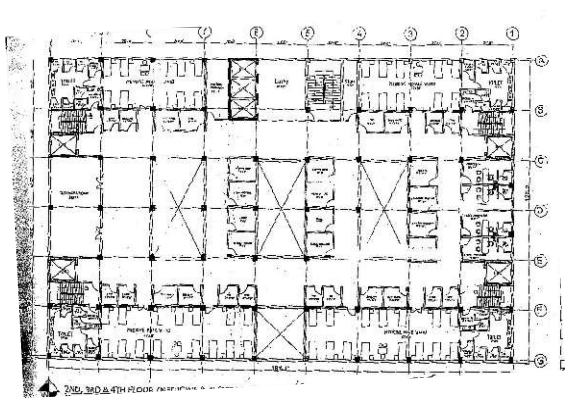
5) Plan for Expansion and Reconstruction of Building in SSMCH

SSMCH plans to demolish the premises that have become unsafe due to aging and construct new wards to expand the capacity and to enhance the outpatient and inpatient departments and improve the quality of medical services for specialized treatments. The number of beds will be significantly increased from 900 to 1,400 by adding 500 beds. Although preliminary surveys have not been conducted yet, the plan (draft) has been prepared. The details of the plan are as follows:

- **Purpose:** Outpatient and inpatient departments
- **Floors:** Two basement levels, 18 above-ground floors
- **Structure:** Reinforced concrete construction, pile foundation
- **Total floor area:** 41,100 m² (442,500 sq ft)
- **Estimated cost (construction only):** BDT 3,593,879,000 (approximately JPY 4.6 billion)
- **Available land for construction:** Yes (demolition of existing facilities required)
- **Feasibility study:** Not conducted



Ground Floor Plan



Standard Floor Plan

Figure 7-4: Ground Floor Plan, Basic Floor Plan

Source: SSMCH provided

Each floor plan is presented as follows:

Basement 2: Radiotherapy, Parking, Utility, Storage
Basement 1: Parking, Waste Management, Storage
1st Floor: Reception and Waiting Area, Imaging and Radiology
2nd Floor: Hospital Administration
3rd to 6th Floors: Various Departments and Patient Rooms (200 beds), Doctor's Lounge, Nurse's Lounge
7th Floor: ICU (20 beds), HDU (18 beds)
8th and 9th Floors: Surgery Department and Related Rooms
10th to 17th Floors: Departments and Patient Rooms
18th Floor: Conference Room, Cafeteria, Prayer Room

Regarding medical equipment, due to the high daily usage frequency of the current MRI and CT, additional installation of MRI and CT will contribute to reducing examination waiting times and alleviating congestion. One MRI and one CT will be installed on the first floor as part of the plan, along with the necessary general medical equipment for emergency medical services, ICU, and High Deficiency Unit (HDU).

(3) National Gastroliver Institute and Hospital（NGIH）

NGIH is a specialized hospital targeting diseases of the digestive system, liver, pancreas, and related organs. The newest hospital building (shown in the pictures below) began construction in 2011 and was completed in 2019, with one basement floor and ten above-ground floors. Additionally, accommodations for doctors, nurses, and staff have been established within the premises. Originally named Sheikh Russel National Gastroliver Institute and Hospital, it was renamed in November 2024 following the collapse of the Hasina administration.

		
The main entrance provides access to both outpatient and emergency services.	Completion of construction was in 2019 with spacious layout.	The rooftop is designed with future expansion in mind, with column reinforcements extended from the floor and protected by concrete.

1) Operational Status

Department	Internal Medicine, General Surgery, Pediatric Surgery, Others
Human Resource	Doctor：154, Nurse：369, Others：225
Beds	250 beds
ICU and NICU	16 beds
In-patients	5,719
Performance Indicators for 2024	- Outpatients：152,428 - Emergency incoming：7,825 - Operation：963
Disease Structure	① Indigestion ② Liver disease ③ Functional gastrointestinal disorders

Source: Survey Team

2) Financial Status（Operating Incomes and Expenses）

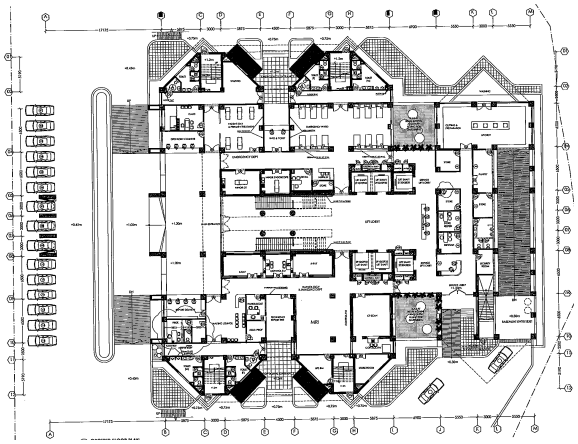
Fiscal Year	Expenses （BDT）					Income （BDT）	Balance
	Labor Cost	Consumables	Maintenance	Others	Total		
2021-2022	110,340,686	124,193,160,	-	4,699,555	239,233,401	65,021,850	△175,211,551
2022-2023	110,597,747	244,529,840	-	3,988,670	359,116,257	77,757,980	△281,358,277
2023-2024	94,896,779	215,090,716	38,661,140	77,53,996	356,402,631	95,803,710	△260,598,921

July- June considered as fiscal year in Bangladesh

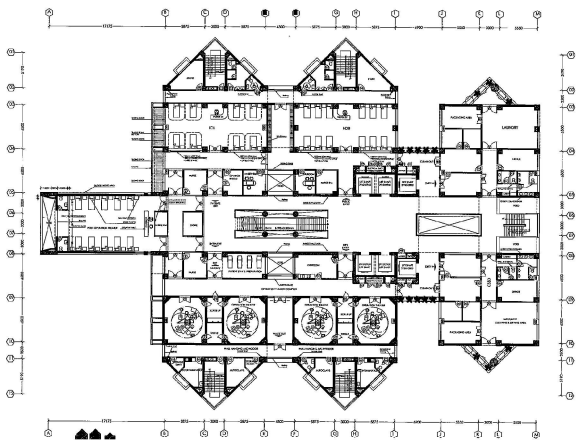
Source: Survey Team

3) Facility Conditions

As a specialized hospital for diseases of the digestive system, including the liver, pancreas, and related organs, NGIH is focusing on the introduction of liver transplantation. In Bangladesh, approximately 23,000 people die annually from end-stage liver diseases. Each year, 500 to 1,000 people travel abroad for liver transplants due to lack of options in Bangladesh. However, the cost of these procedures is high for most patients in the country. Thus, by establishing the transplant department at NGIH as a Center of Excellence and starting liver transplant services domestically, NGIH will be able to provide advanced transplant operations domestically at an affordable cost to a larger part of the population. To realize this goal, it is necessary to train qualified and competent transplant surgeons, modernize equipment to enhance implementation capacity and efficiency, and strengthen the hospital's clinical capabilities.



Ground Floor Plan



OP Floor Plan

Figure 7-5: Ground Floor Plan, Operation Room Floor Plan

Source: Provided by NGIH

4) Existing Medical Equipment and the Conditions

NGIH owns one MRI machine , one CT machine (Canon, both purchased in 2019), and three digital X-ray machines (Shimadzu, TOSHIBA, purchased in 2019). Although the warranty and after-sales service contracts have been expired, there are no operational issues. The ICU is equipped with only two dialysis machines, which cannot be shared with the outpatient department, as they must be maintained in a sterile environment. Therefore, outpatient dialysis services, such as for patients with diabetes, are currently unavailable, highlighting the need for approximately ten additional dialysis machines for the outpatient department. In preparation for a future increase in patient volume, NGIH also requires backup MRI, CT, and digital X-ray equipment. However, the current utilization rate of these services is relatively low, at about five to ten scans per day. Therefore, the need for new installations is not considered urgent as of this time.

		
Three Tesla MRI (Canon)	Sixty-four Slicing CT (Canon)	Dialysis Machine in ICU

5) Plan for Expansion and Reconstruction of Building in HGIH

NGIH's plan includes adding two floors to the current ten-story building, making it a 12-story structure, as well as renovating the surgical department and procuring new equipment. However, vertical expansion and renovation work face challenges such as ensuring structural safety, issues with responsibilities with the other party, and unknown conditions of existing facilities in non-visible areas, making it difficult to carry out the work under official development assistance (ODA) project. Regarding equipment procurement, the medical equipment requested in this survey could be considered for provision, and refer to 11.2.1 of Chapter 11 for detailed equipment lists.

(4) National Institute of Cardiovascular Diseases（NICVD）

The National Institute of Cardiovascular Diseases (NICVD) is a specialized hospital dedicated to the treatment of cardiovascular diseases in Bangladesh. Established in 1978, NICVD was founded with the aim of establishing advanced cardiovascular care services and developing trained professionals in the field of cardiology to meet the country’s growing healthcare needs. In addition to providing the best possible services and care for patients with cardiovascular disease, a postgraduate medical course for doctors was introduced in July 1982. Many cardiology specialists have graduated from this course and are engaged in providing specialized cardiac care services in various government and non-government hospitals both in and outside Bangladesh. Training programs for nurses (ICU, coronary care unit (CCU), cardiac catheter laboratory (Cath Lab), operating theater (OT)) and other support technicians are also conducted. Regarding advanced catheter treatments such as stent placement, currently, all seven catheter labs are not fully operational, so approximately 20 angiographies are performed daily. Out of the seven catheter labs, five are in use. The purchase process for three angiography machines is underway with government funding. Despite being a top referral facility for cardiovascular diseases, NICVD does not own MRI or CT machines.

		
The main entrance, used both for emergencies and general admissions.	Waiting area, very crowded, and it is difficult to transfer or move in the hospital daily.	The reception: incoming patients receive tickets for consultation here, and make registrations.
		
EV hall: some patients lying on mats while waiting for consultation/treatment due to a lack of available beds.	Construction site: behind the main building.	Dormitory for nurses

1) Operational Status (Performed in 2024)

Department	Cardiology, Cardiac Surgery, Pediatric Cardiology, Pediatric Cardiac Surgery, Vascular Surgery
Human Resource	Doctors：451, Nurses：1,116, ME：5, Others：705
Beds	1,250 beds
ICU and NICU	69 beds
In-patients and Discharged	In-patient: 107,215, Discharged: 107,446
Performance in 2024	- Outpatients：207,260 - Emergency incoming：17,897 - Operations：17,599 - Referral from Other Facilities：63,215
Disease Structure	① Acute Coronary Syndrome (Acute Myocardial Infarction, Angina) ② Chronic Coronary Syndrome ③ Acute and Chronic Heart Failure ④ Congenital Heart Disease in Children

Source: Survey Team

2) Financial Status（Operating Incomes and Expenses）

Fiscal Year	Expenses （BDT）					Income （BDT）	Balance
	Labor Cost	Consumables	Maintenance	Others	Total		
2021-2022	563,993,500	497,888,100	3,758,500	109,935,346	1,175,575,446	132,243,000	△1,043,332,446
2022-2023	571,953,600	452,943,900	4,133,200	138,502,700	1,167,533,499	140,552,880	△1,026,980,520
2023-2024	620,823,900	514,754,800	5,511,500	159,271,000	1,300,361,200	193,713,457	△1,106,647,743

July- June considered as fiscal year in Bangladesh

Source: Survey Team

3) Facility Status

At NICVD, the first hospital facility was constructed in 1993. Subsequently, auxiliary facilities such as accommodations and dormitories were built, but there are no dedicated academic facilities or laboratories. Training and research for doctors and clinical staff are conducted using limited space within the hospital. As a result, medical education, including the enhancement of clinical skills and advanced technical expertise in various aspects, is insufficient. NICVD needs training facilities and laboratories for human resource development. Additionally, due to environmental factors and aging, medical equipment and facilities have suffered damage and deterioration. Ensuring the provision of high-quality medical services, the specifications of medical equipment, auxiliary facilities, and buildings have become outdated due to the evolving needs and diversification brought about by medical advancements.

4) Existing Medical Equipment and the Conditions

NICVD currently has seven angiography rooms, of which five are operational. To meet growing patient demand and ensure continuity of service, there is a need for the procurement of five additional angiography machines. Unlike imaging devices such as MRI or CT scanners, angiography machines are used for treatments and procedures such as stent placement, and their maintenance needs cannot be measured solely by usage frequency. These machines operate 365 days a year, including for emergency cases. Additionally, since NICVD does not own MRI or CT machines, imaging is conducted at other hospitals, which imposes a significant burden on patient mobility. Therefore, there is a request for the maintenance of one MRI and one CT machine.Regarding the use of these advanced medical devices, NICVD charges patients BDT 3,000 for angiography and 30% of the cost for stent placement.

5) Plan for Expansion and Reconstruction of Building in NICVD

The expansion plan aims to improve the issues, streamline various procedures, and to provide a facility structure that enables a one-stop service for critically ill patients from admission to diagnosis, emergency treatment, and hospitalization. Additionally, there is a need for facilities that can support the training and research of specialists, nurses, and technicians in cardiovascular diseases. The plan includes a building with three basement floors and 12 above-ground floors. The floor layout is planned as follows: parking and utilities from basement levels B3 to B1, consultation, examination, and patient rooms from the first to fourth floors, and academic areas from the fifth floor upwards.

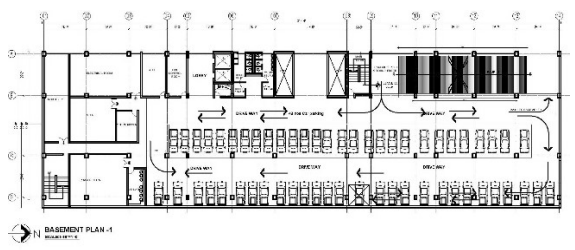


Figure 7-6: Overall Layout of NICVD

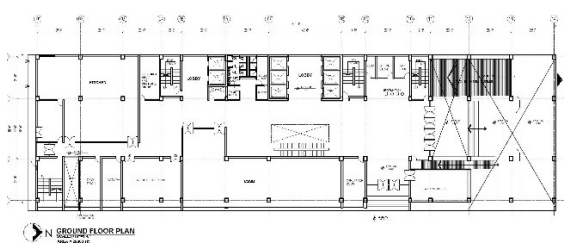
Source：Provided by NICVD

The plans are as follows:

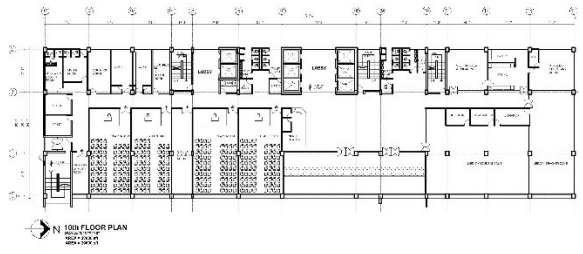
- **Purpose**: Consultation Department, Lab, Patient Rooms, Training-related Rooms
- **Floors**: Three basement floors, 12 above-ground floors
- **Structure** Reinforced concrete structure, pile foundation
- **Total floor area**: 38,500 m² (414,400 sq ft)
- **Estimated cost (construction only)**: BDT 3,753,841,000 (approximately JPY 4.8 billion)
- **Available land for construction**: Available
- **Feasibility study**: Completed



B1F Plan



Ground Floor Plan

	
Tenth Floor Plan	Behind is the Planned New Building

Source：NICVD provided

NICVD requested additional angiography equipment. Additionally, since NICVD do not possess MRI and CT machines, it is necessary to install these as well in order to function as the top referrral hospital.

(5) Narsingdi Sadar Hospital（NSH）

NSH is a district hospital located in the center of the city. The main hospital building is a three-story reinforced concrete structure, completed in 1962. While proper maintenance can extend the lifespan of such buildings, typically estimated at 50 to 60 years, signs of aging at NSH have progressed significantly due to intreated corrosion, mold, and structural cracks. Additionally, due to malfunctions and outdated facilities, the use of medical equipment is limited. Despite these conditions, many patients concentrate to NSH due to its good location.

		
A long line of patients waiting is seen waiting to register at the reception area located at the back of the building before proceeding to their respective departments.	X-ray machine. Currently not in use due to obsolescence.	Operating Room
		
In an NDC corner, there is a room that is small, serving patients by conducting basic tests and dispensing prescribed medicines.	Each in patient ward accommodates approximately 10 to 13 beds.	Construction site.

1) Operational Status (Performed in 2024)

Department	Internal Medicine, Dermatology, Dentistry, Orthopedics, Surgery, Prenatal Care, Postnatal Care, Cardiology
Human Resources	Doctors：15, Nurses：130, ME：0, Others：25
Beds	100 beds
ICU and NICU	None
In-patients and Discharged	16,535

Performance Indicators	- Outpatients：375,726 - Emergency incoming：217,553 - Operations：Major1,168、Minor12,805

2) Financial Status（Operation Expenses and Incomes）

Fiscal Year	Expense （BDT）					Income （BDT）	Balance
	Labor Cost	Consumables	Maintenance	Others	Total		
2021-2022		114,617,500	1,941,278	68,458,222	185,017,000	185,017,000	0
2022-2023	2,904,000	120,650,000	2,043,925	69,156,825	191,850,750	194,754,750	2,904,000
2023-2024	1,716,000	127,000,000	2,151,500	74,137,500	205,005,000	205,005,000	0

July- June considered as fiscal year in Bangladesh

Source: Survey Team

3) Facility Status

The existing facilities of NSH have significantly deteriorated and become obsolete due to aging. Additionally, the operating room space is insufficient, and the lack of recovery rooms, ICUs, and NICUs leads to inadequate patient care treatment. NSH also has a shortage of conference rooms and storage spaces. Furthermore, considering the size of the hospital, there is also a critical shortage of doctors, nurses, and support staff. Although NSH has asked for external doctors to work under certain conditions, recruitment of these professionals remains challenging due to the poor condition and limited availability of accommodation facilities, many of which are aged and unusable.

4) Existing Medical Equipment and the Conditions

NSH does not have a CT scanner and currently operates with one digital X-ray machine and one film-based X-ray machine. Both machines are significantly aged, covered in dust, and appear to be non-functional. A Chinese-made C-arm X-ray machine was observed in the operating room, but its condition is unclear. Furthermore, NSH lacks radiologists and radiologic technologists. As a district hospital, NSH provides 24-hour emergency care to traffic accident and trauma patients. However, the inability to conduct critical imaging examinations, particularly with CT and X-ray machines, poses a high risk of delayed diagnosis and treatment of severe conditions such as brain or internal organ hemorrhages.

			
Used X-ray machine (purchased in 2018, Shimadzu)	Ultra sound machine	Indian C-arm X-ray machine	Examination bed for newborns, in use since the 1940s.

5) Plan for Expansion and Reconstruction of Building in NSH

At present, NSH does not have a specific expansion plan (proposal), but they hope for a hospital with the following features: a hospital with 100 beds, equipped with an ICU, NICU, post-operative recovery rooms, and a dialysis center.

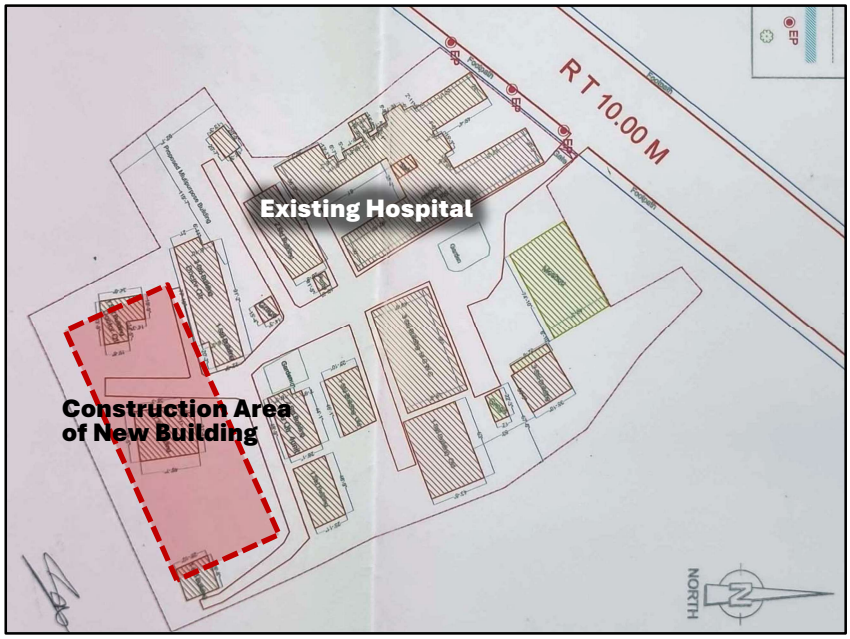


Figure 7-7: Overall Layout of NSH

Source：Provided by NSH

The outline of the plan is as follows (Estimated by the Survey Team):

Usage: Medical department, patient rooms (70-100 beds), others
Floors: Four stories above ground
Structure: Reinforced concrete, pile foundation
Total floor area: 3,100 m² (33,350 sq ft)
(1st and 2nd floors: 865 m² each, 3rd and 4th floors: 640 m² each, PH floor: 90 m²)
Estimated cost (construction only): BDT 823,437,500 (approximately JPY 1.054 billion, unit price per square meter: JPY 340,000)
Land available for construction: Yes
FS: Not conducted

(6) Nursing College in Chattogram

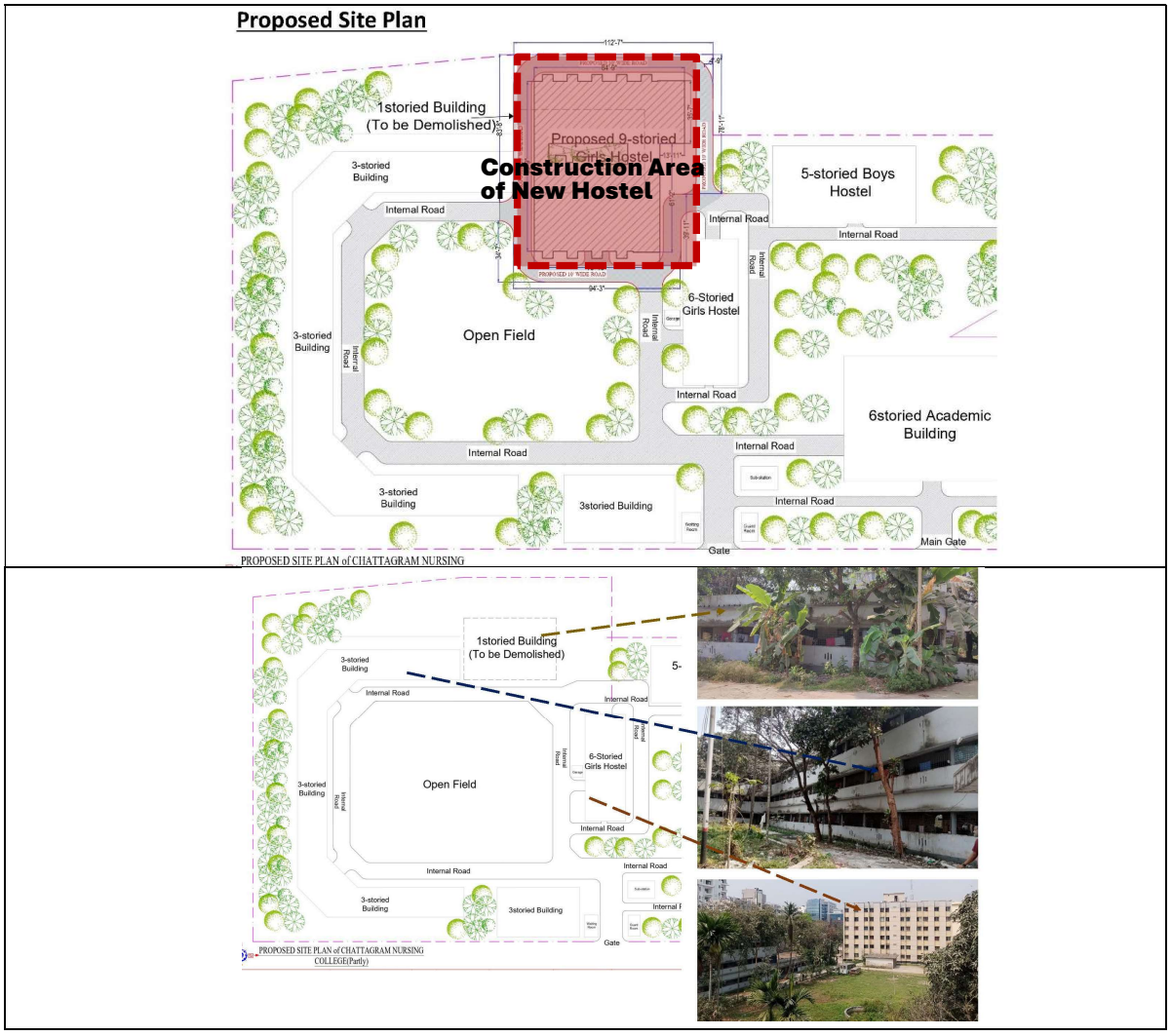
The nursing college currently has six-story dormitory building, which has become outdated. According to HED's plan, a new nine-story dormitory for nurses is planned to be constructed on the site, following the demolition of an aged and unusable single-story building that previously occupied the area.

The new dormitory will have common spaces on the first floor, including a dining area, kitchen, and offices. The second to eight floors will be used as dormitory rooms. Each floor will have nine rooms (each for four people) and one room for two, with a total of 38 rooms. The entire facility will be able to accommodate 304 nursing students.

The outline of the plan are as follows:

Purpose: Women's dormitory

Capacity: 304 people
Floors: Nine stories above ground
Structure: Reinforced concrete with pile foundation
Total floor area: 5,857 m² (63,046 sq ft)
Estimated cost (including furniture): BDT 396,667,000 (approximately JPY 510 million)
Available land: Yes
Feasibility study: Not conducted, plan (proposal) available



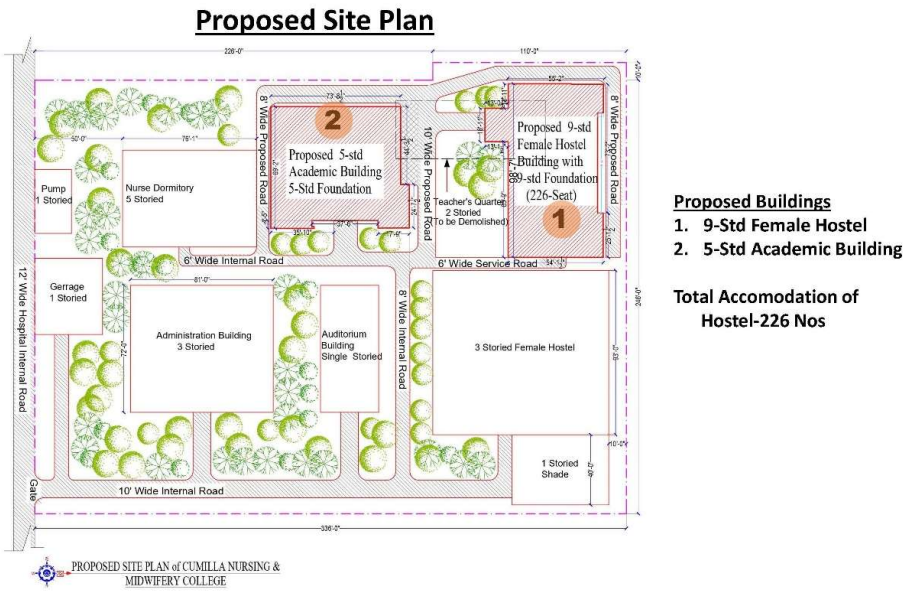
(7) Nursing and Midwifery College in Cumilla

The original plan includes the construction of a five-story lecture building and nine-story dormitory for nursing students. The proposed construction site is located on the campus, replacing the existing teacher housing. The lecture building will have a total floor area of 2,324 m², while the dormitory will cover 4,444 m² in total.
The dormitory will have common spaces on the first floor, and floors two through nine will be used as dormitory rooms. Each standard floor will have five four-person rooms and three two-person rooms, with a total capacity of 226 residents.

The outline of the plan are as follows:

Purpose: Women's dormitory and lecture building
Capacity: 226 people

Floors: Dormitory: Nine stories above ground; Lecture building: Five stories
Structure: Reinforced concrete with pile foundation
Total floor area: 6,745 m² (72,580 sq ft)
Estimated cost (including furniture): BDT 462,413,000 (approximately JPY 592 million)
Available land: Yes
Feasibility study: Not conducted, plan (proposal) available



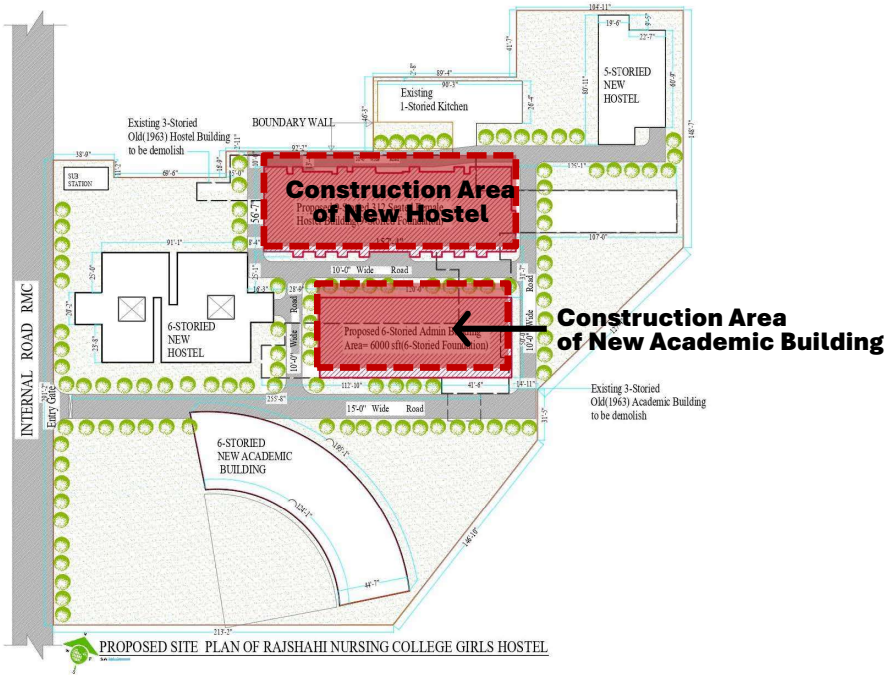


(8) Nursing College in Rajshahi

The plan entails the demolition of the existing lecture building and dormitory, originally constructed in 1963, and the construction of a new six-story lecture building and a nine-story dormitory for nursing students. The dormitory will have a total floor area of 6,531 m² and will feature common spaces such as a dining area on the first floor. Dormitory rooms will be located from the second to the ninth floor, with each standard floor comprising eight four-person rooms and four two-person rooms, accommodating a total of 312 students. The new six-story lecture building will have a total floor area of 3,600 m². Combined, the total planned floor area for the new facilities will be 9,877 m².

The outline of the plan are as follows:

Purpose: Women's dormitory and lecture building
Capacity: 312 people
Floors: Dormitory: Nine stories above ground; Lecture building: Six stories
Structure: Reinforced concrete with pile foundation
Total floor area: 9,880 m² (106,309 sq ft)
Estimated cost (including furniture): BDT 59,313,000 (approximately JPY 760 million)
Available land: Yes
Feasibility study: Not conducted, plan (proposal) available







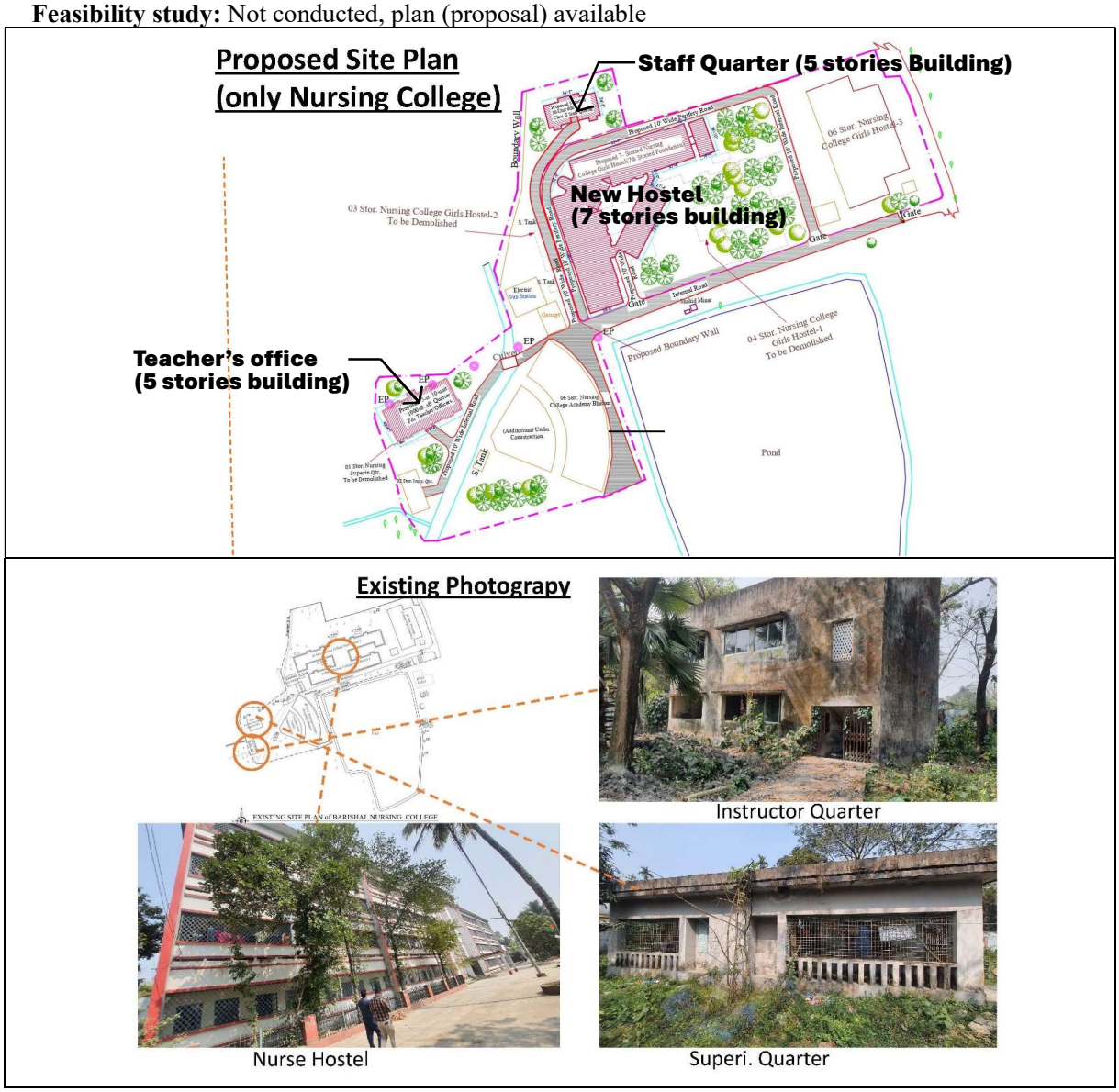
(9) Nursing College in Barishal

The plan involves the construction of three buildings: a seven-story dormitory for nursing students (7,931 m²), a five-story faculty office (1,013 m²), and a five-story staff residence (637 m²), totaling a combined floor area of 9,580 m². The project will require the demolition of existing outdated dormitories and residences to make way for the new facilities. The student dormitory will be arranged from the first to the seventh floor, with a total capacity of 406 people.

The outline of the plan are as follows:

Purpose: Women's dormitory, faculty office, staff residence
Capacity: 406 people
Floors: Dormitory: Seven stories above ground; Faculty office: Five stories; Staff residence: Five stories

Structure: Reinforced concrete with pile foundation
Total floor area: 9,580 m² (103,085 sq ft)
Estimated cost (including furniture): BDT 612,867,000 (approximately JPY 784 million)
Available land: Yes
Feasibility study: Not conducted, plan (proposal) available



(10) Nursing College in Rangpur

The plan includes demolishing the existing outdated student dormitory and constructing a seven-story women's dormitory and a five-story men's dormitory. The women's dormitory will have 11 two-person rooms on the first floor. From the second to the seventh floor, there will be 24 two-person rooms and four four-person rooms, with a total capacity of 406 residents. The men's dormitory will have common spaces on the first floor. The second and third floors will each contain three three-person rooms, while the fourth and fifth floors will each have three-person rooms and two two-person rooms, accommodating a total of 44 residents.

Outline of the plan

Purpose: Women's dormitory, Men's dormitory
Capacity: Women: 406 people, Men: 44 people
Floors: Women's dormitory: Seven stories above ground; Men's dormitory: Five stories

Structure: Reinforced concrete with pile foundation
Total floor area: 9,374 m² (100,869 sq ft)
Estimated cost (including furniture): BDT 573,100,000 (approximately JPY 740 million)
Available land: Yes
Feasibility study: Not conducted, plan (proposal) available



(11) Nursing College in Mymensingh

The plan includes the construction of a nine-story women's dormitory, with a total floor area of 6,024 m², on an open space within the site. The first floor of the building will be designated as common areas, including a dining facility, while the second through ninth floors will house dormitory rooms. The building will have a total capacity of 272 residents.

The outline of the plan are as follows:

Purpose: Women's dormitory
Capacity: Women: 272 people
Floors: Women's dormitory: Nine stories above ground
Structure: Reinforced concrete with pile foundation
Total floor area: 6,027 m² (64,852 sq ft)
Estimated cost (including furniture): BDT 418,167,000 (approximately JPY 540 million)
Available land: Yes
Feasibility study: Not conducted, plan (proposal) available



7.4 Reconstruction Plan and its Process of Dhaka Medical College Hospital（DMCH）

1) Facility Status

The central building of DMCH, as shown in the overall layout diagram, is a British colonial-style structure constructed before 1905 and originally served as the state administrative headquarters. In 1921, it was transferred to Dhaka University, where a portion was repurposed as the university's medical center. Following the partition of India, Dhaka Medical College was established in 1946, and dormitories, academic facilities, and hospital infrastructure were gradually added and expanded, shaping the current campus. With this historical foundation, DMCH has evolved into the top referral general hospital in Bangladesh. As a result, it consistently experiences high patient volumes seeking consultations, and severe congestion. Hospital beds are occupied beyond capacity and combined with aging infrastructure and overcrowded conditions, this raises significant concerns regarding hospital-acquired infections, and limits the ability to provide adequate medical services.

		
The main entrance of the main building.	Long waiting line for registration at the reception area.	Pediatric ward: Parents are accompanying their children by laying mats on the floor due to lack of seats. The ward lacks proper ventilation, raising serious concerns regarding the risk of hospital-acquired infections.

		
The main gate of DMCH.	The main entrance of the nursing students' dormitory building, constructed in 1954, is severely deteriorated.	The 4-story dormitory building for nursing students, as seen from the courtyard.



Figure 7-8: Overall Layout of DMCH

Source：Provided by DMCH

2) Current Status of DMCH following the Development of the Master Plan

Although DMCH is officially categorized as a secondary hospital, such as a general hospital or district hospital, its role as a university hospital in the capital positions it as the nation's top referral general hospital. To accommodate the growing patient demand and ensure the delivery of high-quality medical services, a master plan (hereinafter referred to as "MP") was created and submitted to PWD in 2016. The MP proposed increasing the hospital's beds capacity from 2,500 to 5,000 and reorganizing the layout of medical departments and patient flow,

which had become increasingly complex due to years of frequent expansions. The MP also included demolishing severely deteriorated facilities and constructing new infrastructure to support modern healthcare delivery. However, the PWD ultimately rejected the MP, citing the project's excessively high cost, causing the plan to be shelved. At present, there are no plans to create a new proposal.

3) Existing Medical Equipment and the Conditions

The hospital currently operates one MRI machine (manufactured by HITACHI and purchased in 2017), which was in use during the survey and therefore could not be photographed. Additionally, the Radiology Department is equipped with one CT scanner, one mammography unit, and five digital X-ray machines. The Radiology Department is extremely crowded, with a daily scan volume of approximately 20 to 30 cases. Due to the high frequency of usage, the equipment is expected to deteriorate at a faster rate. However, at present, all major imaging equipment remains relatively new, and their installation locations have been properly constructed with necessary radiation protection measures.

		
CT scan (64 slices, Fuji film)	Digital X-ray machine (purchased in 2019, Shimadzu)	Mammography (purchased in 2023, Fuji film)

Chapter 8 Current State Analysis of Digitization Needs

8.1 Information and Analysis of Digitalization Policies and Institutions

(1) Current Status and Problem Recognition

Various digital tools have been introduced within the Ministry of Health and Family Welfare (MoHFW)-affiliated agencies to promote the digitalization of health information and improve operational efficiency. The primary departments managing these digital tools are Management Information System-Directorate General of Health Services (MIS-DGHS) and Management Information System- Directorate General of Family Planning (MIS-DGFP), each of which has developed and independently maintains a core information database based on the open platform District Health Information Software 2 (DHIS2: https://dhis2.org/).

The core database managed by MIS-DGHS (DHIS2-DGHS) contains health statistics related mainly to health services, including patient medical records, immunization data, and records of community-based health management activities. While the digitalization of diagnostic records has progressed in some public hospitals and such data is reflected in the statistics, in many hospitals, the data remains limited to statistical aggregation.

Conversely, the core database managed by MIS-DGFP (FP-DHIS2) compiles information related to family planning services such as household data and maternal and child health information and manages it as statistical data. The data are also managed at the household level through the electronic Management Information System for Family Planning Services (eMIS).

An overview of the above is presented in Figure 8-1.

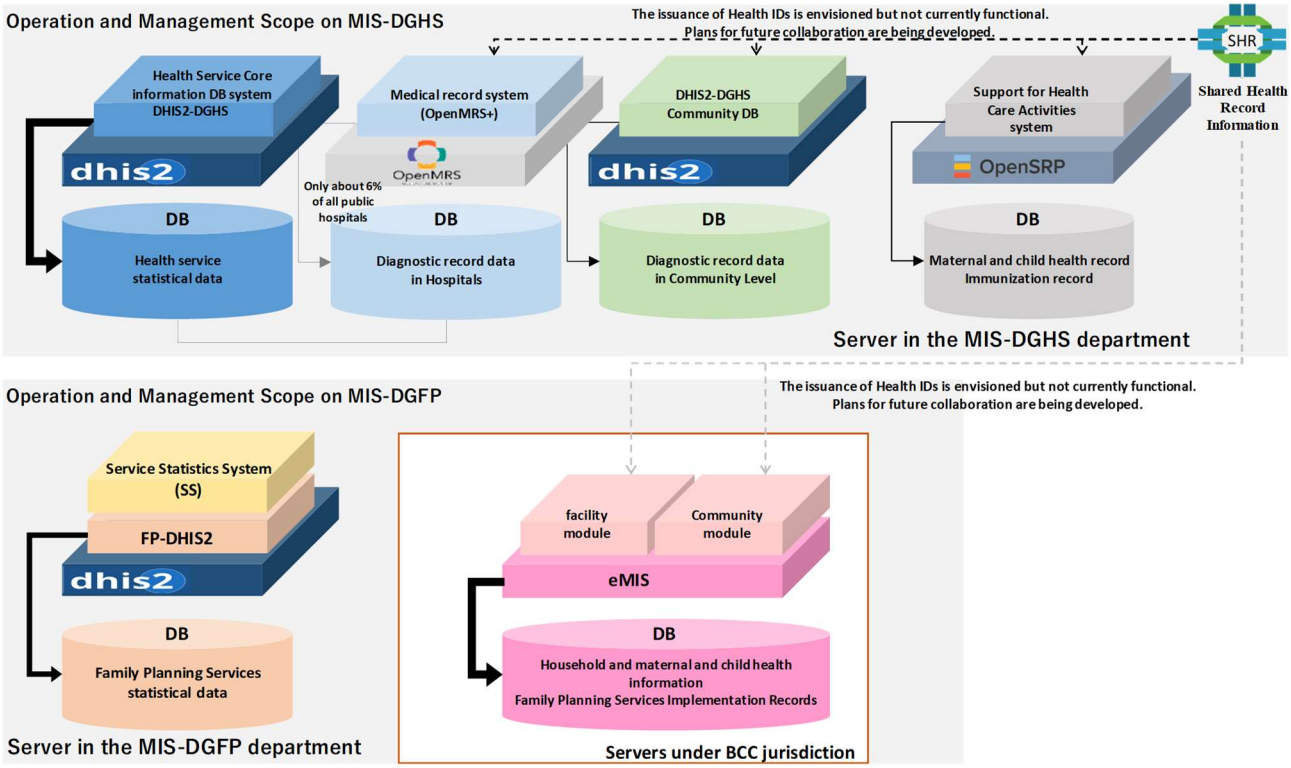


Figure 8-1: Architecture Diagram of Major Core Databases in the Bangladesh Health Sector

Source: Survey Team

Although each of these databases contains overlapping information such as household data and maternal and child health information, they are not interoperable, making integration extremely difficult.

The following section illustrates the flow of health services provided by MoHFW, explaining how digitization has been implemented, what challenges have arisen in the process, and the current efforts underway to address those challenges.

Health Service Information

Since the introduction of DHIS2-DGHS in 2011, public health facilities at the upazila level and above, including Upazila Health Complexes (UzHCs), have begun directly entering health statistics into computers. These data are then aggregated and analyzed in real time, significantly reducing the burden of compiling statistical health information, such as patient records, immunization data, and community-based health management activity reports. Additionally, DHIS2-DGHS includes visualization features, such as graphs, charts, and tables, which facilitate the preparation of reports and the formulation of policy recommendations in the health sector. However, this information management system is limited to secondary data, namely, statistical health information, and does not support the electronic sharing of patient diagnostic records or clinical data. As such, it does not directly contribute to improvements in health service delivery. To address this, Bangladesh began introducing OpenMRS+ around 2016. This system, based on OpenMRS[171] (https://openmrs.org/) and enhanced with DHIS2 integration, was intended to digitize diagnostic and clinical data. Nevertheless, the implementation of OpenMRS+ has been limited to only a few hospitals[172], and patient records and clinical data remain predominantly paper-based.

Meanwhile, for Community Clinics (CCs), a system called the "DHIS2-DGHS Community DB System" was developed with support from the United Nations Children's Fund (UNICEF), based on the DHIS2 platform. This system aims to digitize patient diagnostic records and accumulate health information of patients visiting CCs, thereby enabling follow-up at the community level.

During the pilot introduction, efforts were made to follow up with individual patients. However, actual follow-up depended heavily on the awareness and initiative of health workers assigned to CCs, and the system has not been effectively utilized for its intended purpose. Currently, these diagnostic records are used only as a source of information for preparing monthly health service reports, and the digitized individual diagnostic data are not actively used.

Health workers at CCs submit their monthly reports to the UzHCs, where the statistical data included in the reports are manually entered into DHIS2-DGHS. Furthermore, many CCs have not introduced the DHIS2-DGHS Community DB System at all, and diagnostic records are still managed on paper.

[171] OpenMRS is a collaborative platform developed to support health information management and the delivery of health services in developing countries, and it is provided free of charge. OpenMRS is designed to be usable at minimal cost even in environments with very limited resources for system development and operation. It supports customization without programming, such as the addition of new data elements, input/output control screens, and reporting functions. It is widely used as a platform by many institutions in developing countries.

[172] According to interviews conducted during the second phase of this Survey, OpenMRS+ is currently being introduced in a total of 100 hospitals, including both UzHCs and district hospitals. However, full implementation of all eight modules has been achieved in only 8 district hospitals out of 64 and 25 UzHCs out of 495, indicating that the adoption of OpenMRS+ remains limited.

As a result, in most CCs, patient diagnostic records are paper-based, and the accuracy of the information is low. Moreover, the monthly reports containing low-accuracy data are compiled at UzHCs, and then re-entered into DHIS2-DGHS, further degrading the overall data quality. Therefore, improving data accuracy is an urgent task. Figure 8-2 illustrates the process flow for the aggregation and statistical management of health service information.

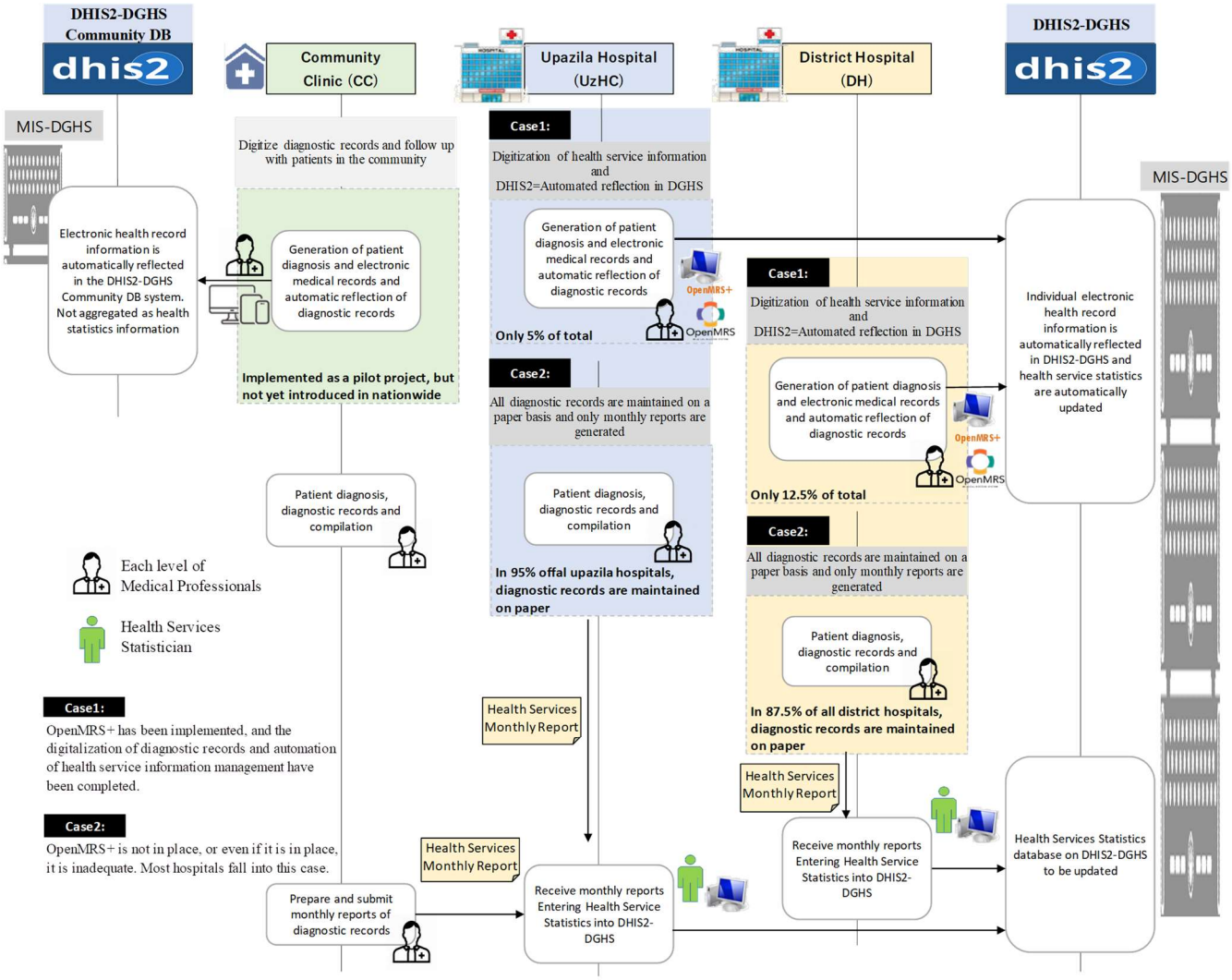


Figure 8-2: Process Flow for Aggregation and Statistical Management of Health Service Information

Source: Survey Team

In addition, a mobile application called the Health Service Activity Support System (OpenSRP) has been developed to allow health workers and Community Health Workers (CHWs) to track pregnant women and mothers and children, and to strengthen and expand maternal and child health services and immunization. This application enables the individual recording of pregnant women and children, supporting follow-up. Based on household-level maternal and child health information collected during home visits, the system helps identify pregnant women and children who are unable to visit health facilities and provides services that include the

necessary care and follow-up. The provision of such services has begun in certain areas[173]. Through this initiative, efforts to expand health services to more pregnant women and children have started, thereby contributing to the strengthening of Universal Health Coverage (UHC). Figure 8-3 illustrates the process flow for strengthening maternal and child health services and immunization through CHWs.

[173] The health information collected by this mobile application is utilized only in the pilot areas (at the upazila level) where it has been deployed, and it is not shared with DHIS2-DGHS.

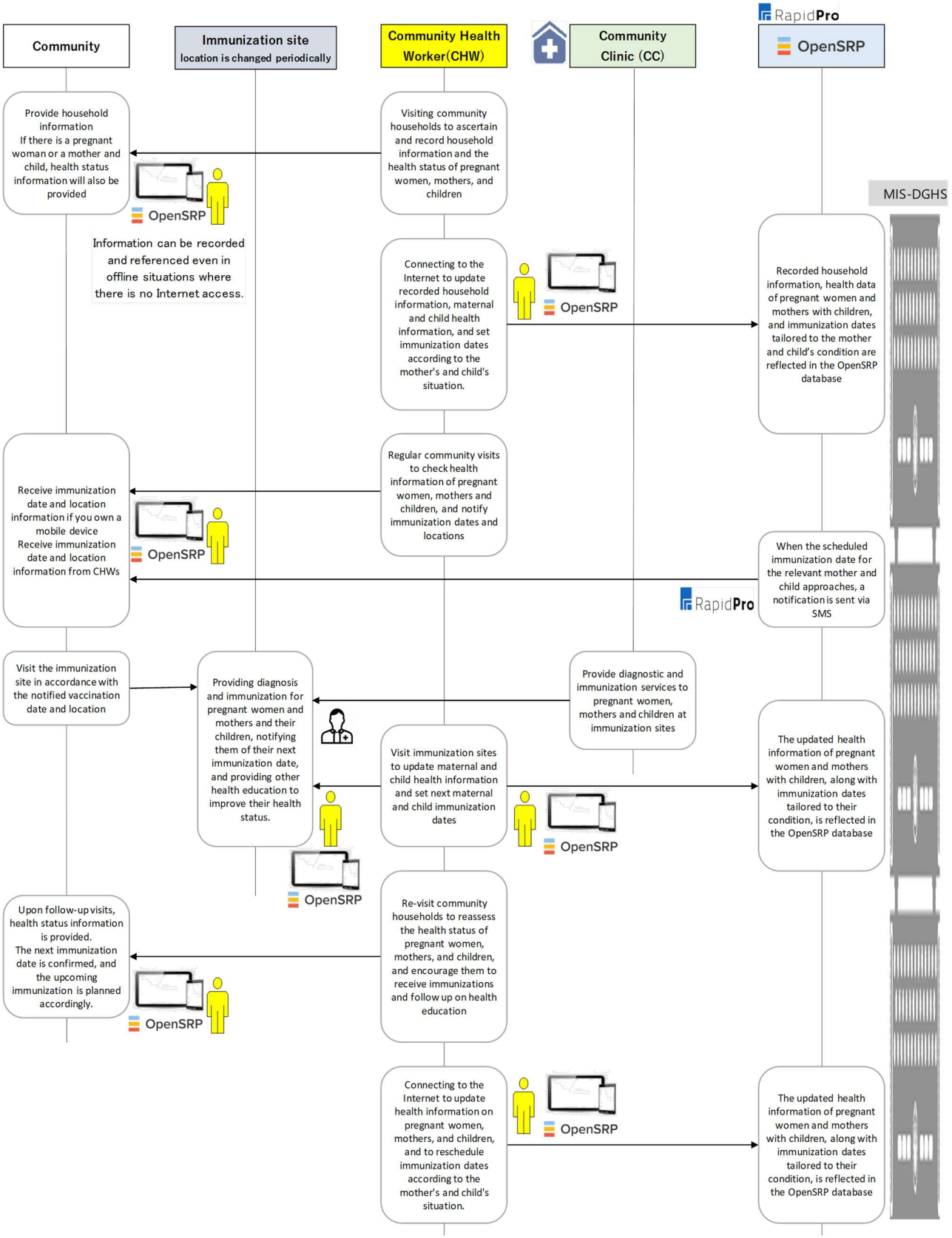


Figure 8-3: Process Flow for Strengthening Maternal and Child Health Services and Immunization by CHWs

Source: Prepared by the Survey Team

In NCDs services, patient diagnostic records and clinical information are entered at NCD counters installed in UzHCs, promoting digitalization and utilization of such data. In the past, many non-governmental organizations (NGOs) supported system development to promote digitalization, and in most cases, this involved requirements analysis, system development, and pilot implementation. As a result, the Simple App has been recognized for its user-friendliness and is expected to be rapidly adopted as the official system for NCD services.

The Shared Health Record (SHR) system was developed with support from the UK Department for International Development (DFID). SHR is a system for issuing and managing a unique health identifier (health ID) for individuals, which includes basic information such as name, national ID, and birth registration ID. Currently, approximately seven million individuals are registered, the majority of whom are adolescent girls aged 10 to 14 who were registered during the human papillomavirus (HPV) vaccination campaign. As of now, automatic assignment of health IDs and integration with other health information systems have not been fully implemented. In addition, other systems such as the Human Resource Information System (HRIS) and the Asset Management System (AMS) have also been developed. For system specifications, refer to Table 8-1.

HRIS is a system that records the personnel information of DGHS staff and supports basic operations for managing such information (e.g., registration, updates, and deletion), but it does not include features for performance evaluation or optimal personnel deployment.

AMS has been introduced in UzHCs and district hospitals, and functions primarily as a ledger system for facilities and medical equipment. It does not yet support comprehensive information management or utilization for efficient use of medical-related assets.

Table 8-1: Overview of Major Health Information Systems Managed by MIS-DGHS

System-Name	Technical Specification	Improvements / Implementation Prospects
1. MoHFW Directorate General of Health Services (DGHS)		
1-(1). Core Health Service Information DB System (DHIS2-DGHS)	This system is used in higher-level health facilities, including UzHCs. All health service information is compiled at the upazila level, and the entered data are aggregated to automatically generate health statistics. These statistical reports, including graphs and charts, can be viewed on the web and include the following information: - Aggregated reports of health service information at the upazila level and above - Health statistical data	DHIS2-DGHS has been implemented in all UzHCs, district hospitals, and other public hospitals. Going forward, the implementation of OpenMRS+ will be promoted, and integration with DHIS2-DGHS is expected to enable more accurate and real-time monitoring of health service information.
1-(2). DHIS2-DGHS Community DB System	This system is used in CCs and union-level health facilities to record patient diagnostic information and routine health service data, such as patient profiles, diagnoses, and the number of cases by disease. Aggregated health information at the community level can be viewed on the web. In addition to routine health service data, the system also covers detailed patient information related to maternal and child health. - General patient diagnostic records at primary health facilities - Maternal and child health service information - Generation of aggregated reports at the community clinic level, etc.	The system was developed with the aim of enabling patient follow-up at the community level, and a pilot was conducted. However, due to the substantial resources required and the high level of commitment needed from CC health workers, the system proved to have low effectiveness and sustainability, and it eventually fell out of use. Currently, the introduction of OpenMRS+, which offers high compatibility with DHIS2-DGHS, is being promoted as an alternative.

System-Name	Technical Specification	Improvements / Implementation Prospects
1-(3). Medical Record System (OpenMRS+)	This system is designed to manage a comprehensive range of clinical and health information within hospitals. It consists of eight modules: (a) patient registration and management, (b) diagnostic records, (c) laboratory test information, (d) inventory management for pharmaceuticals and medical equipment, (e) radiology and imaging diagnostics, (f) medical service billing and payment, (g) diagnostic appointment and scheduling management, and (h) reporting and analysis. The health service information consolidated through these modules can also be automatically reflected in DHIS2-DGHS.	Currently, the system is being introduced only in UzHCs and district hospitals. Among UzHCs, implementation is limited to approximately 5% (25 UzHCs), and among district hospitals, to around 25% (eight hospitals). The target is to expand implementation to 250 hospitals by the end of 2025[174].
1-(4). Health Service Activity Support System (OpenSRP)	This system is designed to manage activities related to the health and medical services of pregnant women and mothers and children. It is currently used for maternal and child health services and immunization management, supporting the registration and monitoring of children under five and women aged 15 to 49 as vaccination targets. In immunization management, the system provides services such as health status tracking for mothers and children, immunization records, and schedule management.	The system was introduced with support from UNICEF and KOICA. It has been implemented in three districts, and UNICEF continues to support its maintenance. Although functional enhancements are planned, there is currently no clear prospect for adding new functions or expanding the system to other districts.
1-(5). Shared Health Record System (SHR)	This system is designed to uniquely manage health service information for all citizens (i.e., all individuals eligible for health services) by issuing a health ID that uniquely identifies each person. A health ID is assigned to each patient's health service record, allowing diagnostic records of the same patient to be tracked. This facilitates referrals between hospitals, enabling faster and more appropriate treatment, improvement in health service quality, optimization of medical resources, and strengthening of community-based healthcare.	On a pilot basis, health IDs have been used for collecting and managing patient records in selected communities, with approximately seven million health IDs issued. However, the system has not yet been put into practical use, and there is no clear prospect for nationwide implementation.
1-(6). NCD Tracker / Simple App	Simple App is compatible with hospitals operating in environments with limited internet connectivity and supports 16 local languages for healthcare workers. The introduction of Simple App has improved access to medical care and the quality of care for patients with hypertension and diabetes in Bangladesh. Implementation partners include HiSP Bangladesh, the NCDs Control (NCDC) division, MIS-DGHS, and the National Heart Foundation (NHF) of Bangladesh. Currently, patient record data for NCDs accumulated in Simple App are compiled as NCDs statistical information and reflected in the core database, DHIS2-DGHS. However, the patient record data themselves are stored on Amazon Web Services (AWS), a cloud service platform. Healthcare workers use the Simple App to record blood pressure, blood glucose levels, and prescribed medications during each patient consultation, and to manage diagnosis, treatment, and prevention, including scheduling the next appointment.	At present, Simple App has been deployed in NCD corners established at UzHCs and is actively used in approximately 200 UzHCs, covering about 41% of the total. The app currently supports diagnostic and preventive services for diabetes, chronic kidney disease, myocardial infarction, and stroke. There are plans to migrate the NCD patient record data currently stored in Simple App to servers managed within MIS-DGHS.
1-(7). MoHFW Human Resource Information System (HRIS)	This system is used to manage personnel information of DGHS staff. HRIS registers basic staff information, employment conditions, and career history, and is used to create, record, and update personnel ledgers for DGHS employees. The system supports personnel management and payroll processing. - Personnel profiles of DGHS staff - Transfer records of DGHS staff - Deployment information and organizational charts of DGHS staff	Although integration with the Personnel Management Information System (PMIS), which is managed by other departments, is desired, no concrete implementation plan has been established. Additionally, there is a recognized need to develop mechanisms to support personnel evaluation and appropriate staff

[174] Excerpt from interviews with the MIS-DGHS Department

System-Name	Technical Specification	Improvements / Implementation Prospects
		placement, but no specific measures have been formulated.
1-(8). Medical Facility and Equipment Asset Management System (AMS)	This system is used to centrally manage information on medical facilities and medical equipment under the jurisdiction of DGHS. - Registration and management of information on medical and non-medical equipment - Registration and status monitoring of medical facilities owned by MoHFW	The system has been introduced in individual hospitals, but going forward, it is planned to be gradually replaced by OpenMRS+.

Source: Survey Team

Family Planning Service Information

Information related to family planning services, namely, (1) family planning services, (2) immunization (mainly for infants and young children), (3) medical services for minors, and (4) nutrition improvement services (mainly for infants and young children), is consolidated as family planning service statistical data. This information is digitized through the Service Statistics (SS) system and is stored and managed in the core information database system DHIS2-DGFP, which is administered by MIS-DGFP. The process flow is illustrated in Figure 8-4 below.

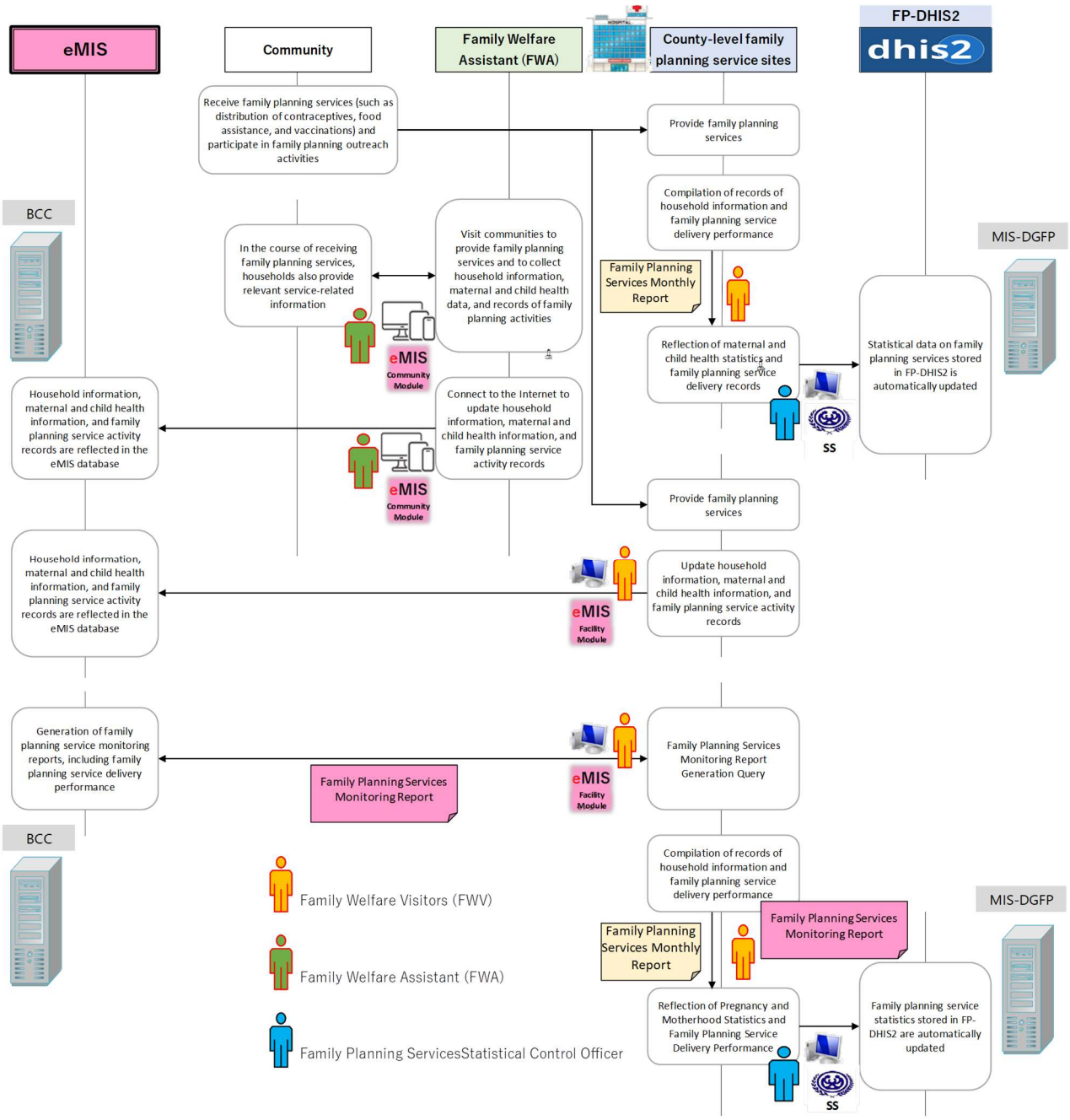


Figure 8-4: Process Flow for Aggregation and Statistical Management of Family Planning Service Information and Registration/Management in eMIS

Source: Survey Team

Separate from the core information database, there is an electronic Management Information System for Family Planning Services (eMIS), which digitizes and manages family planning-related information by household. This system captures household data, maternal and child health information, and records of family planning services provided, all collected through a series of family planning-related activities. It currently covers 45 districts and 345 upazilas, with a total of approximately 50 million registered individuals. This makes it the largest household and individual basic information database managed by MoHFW. MIS-DGFP aims to expand eMIS nationwide and position it in the future as the main operational HIS platform under MoHFW's management.

On the other hand, the database registered and managed through eMIS is maintained at the data center of the Bangladesh Computer Council (BCC), not on MIS-DGFP's own servers. While MIS-DGFP's servers are managed by its technical staff, they lack sufficient technical expertise and skills for proper server administration. Information backups are handled manually, and security measures remain inadequate.

In addition, MIS-DGFP has developed systems like those of MIS-DGHS, including a Personnel Management Information System (PMIS) and an Asset Management System (AMS), for managing human resources and assets. Specifications of these systems can be found in Table 8-2.

PMIS records the personnel information of DGFP staff and supports basic personnel information management (registration, updates, deletions), but it does not include features for personnel evaluation or optimal staff placement.

AMS is used to record facility and equipment inventories at family planning service centers located in upazilas or districts, but it does not support comprehensive information management or effective utilization of assets.

Table 8-2: Overview of Major Health Information Systems Managed by MIS-DGFP

System Name	Technical Specification	Improvements / Implementation Prospects
2. MoHFW Directorate General for Family Planning (DGFP)		
2-(1). Core Information DB System for Family Planning Services (FP-DHIS2)	This is the core information database system managed by MIS-DGFP for family planning services. It was introduced around 2016, with customization and data visualization primarily supported by consultants from UNFPA. Family planning service information collected from DGFP facilities at the upazila level and above is entered into the system via the Service Statistics (SS) MIS web portal and stored in the database. Reports, tables, and graphs related to family planning services are then generated.	Information related to maternal and child health and immunization overlaps with that in the core health service information database system. Although there were plans to integrate the two systems, no significant progress has been made. Rather than full integration, efforts have been made to align terminology between the systems from a statistical perspective while maintaining them as separate platforms.
2-(2). Service Statistics System (SS)	The Service Statistics System (SS) is a system designed to assist with the input of aggregated data collected from paper-based reports submitted by communities and facilities. The system records information such as (1) estimated pregnancies, (2) maternal and child immunization status, (3) birth and death data, and (4) contraceptive stock management data. These data are aggregated by administrative units such as union, upazila, and division. The system also supports the creation of family planning service activity reports and includes functions for printing support.	SS was developed to support the input of family planning service data into FP-DHIS2 prior to the introduction of eMIS. Currently, direct integration from eMIS to FP-DHIS2 is being promoted, and once completed, SS will no longer be necessary. The timeline for system replacement has not yet been determined.
2-(3). Electronic Management Information System for Family Planning Services (eMIS)	eMIS is a custom-built system developed from scratch without using the open platforms recommended for use in the Bangladeshi health sector, such as DHIS2 or OpenMRS. This system records household-level information including maternal and child health, immunization status, and contraceptive provision, allowing monitoring of family planning service delivery by administrative units such as community, union, upazila, district, and division. It also enables tracking of household-level service activities and support follow-up.	eMIS is not integrated with FP-DHIS2 and is currently operated on separate servers and databases. With support from MIS consultants dispatched by UNFPA and UNICEF, customization is underway to improve eMIS and enable direct integration with FP-DHIS2, with completion expected within this year.
2-(4). PMIS (Personnel Management	This system is used to manage personnel information for DGFP staff. PMIS registers basic staff information,	Although integration with HRIS, which is managed by other departments, is desired, no concrete implementation plan has been

System Name	Technical Specification	Improvements / Implementation Prospects
Information System)	employment conditions, and career history, and is used for personnel management and payroll processing. - Personnel profiles of DGFP staff - Transfer records of DGFP staff - Deployment information and organizational charts of DGFP staff	established. Additionally, there is a recognized need to develop mechanisms to support personnel evaluation and appropriate staff placement, but no specific measures have been formulated.
2-(5). eLMIS (Electronic Logistics Management Information System)	This system is used to centrally manage information on medical facilities and medical equipment under the jurisdiction of DGFP. - Registration and monitoring of information on medical and non-medical equipment owned by DGFP - Registration and status monitoring of medical facilities managed by DGFP	There are currently no plans for replacement with an alternative system or for system improvements.

Source: Survey Team

(2) Policies and Institutional Frameworks Related to Digitalization

Under the 5th HPNSP, the digitalization of health services is positioned as a key pillar in alignment with the vision of "Smart Bangladesh[175]". This includes initiatives such as the strengthening of electronic health records, digital health information systems, telemedicine, and the integrated management of health data.

Current policies and initiatives related to Information and Communication Technology (ICT) and digital technologies in Bangladesh include the following:

- **Bangladesh National Digital Health Strategy (DHS):** Announced at the World Health Assembly in November 2020, this strategy presents a comprehensive roadmap for the digital transformation of the health sector. It includes guidelines, theories of change, framework cycles, and specific actions to support the strategic objectives of the Fifth HPNSP.

- **National Digital Health Information Exchange (NDHIE):** This is a conceptual and comprehensive framework aimed at enabling effective management and utilization of health information in Bangladesh. It serves as a guideline for promoting interoperability and integration of health-related data across public and private sectors. The framework includes the use of individual electronic health records and health IDs, standardization of data formats, and mechanisms for privacy protection and authentication. It aims to establish an environment where individuals can receive continuous and consistent health services. NDHIE aligns with the vision of Smart Bangladesh and constitutes a core concept in the country's long-term digital health strategy. Under this framework, the Shared Health Record (SHR) system for issuing and managing health IDs has been developed.

  The use of health IDs helps prevent duplication in statistical aggregation, thereby improving data accuracy. Additionally, the ability to identify individuals allows for service provision and follow-up across different medical institutions, contributing to the optimal use of limited healthcare resources. Promotion of such digital technologies also fosters a "data culture" that supports evidence generation and data-driven decision-making.

[175] "SMART Bangladesh" is a national strategy of the Government of Bangladesh that aims to achieve a sustainable and inclusive society using digital technologies. It is built upon four key pillars: Smart Citizen, Smart Government, Smart Economy, and Smart Society.

- **Bangladesh Health Information System Architecture (BHISA):** In the past, multiple agencies under MoHFW and various donors independently introduced information systems, resulting in issues such as data duplication, fragmentation, and lack of interoperability. BHISA was introduced to standardize and integrate various HISs, aiming to achieve consistent, non-duplicative data management and decision-making support. Its objectives align with those of the 5th HPNSP.

  BHISA recommends the use of open platforms such as DHIS2 and OpenMRS, the provision of a unified interface for HIS users, the introduction of national health terminology for standardizing terms and indicator definitions across major HISs (e.g., DHIS2 and eMIS), and the implementation of standard code systems such as health IDs. These initiatives facilitate interoperability among multiple HISs.

  In this way, BHISA plays a "bridging" role between fragmented systems and serves as a foundation for building a consistent digital health ecosystem aligned with the vision of Smart Bangladesh.

Both NDHIE and BHISA are important strategies for promoting digitalization in the health sector in Bangladesh. NDHIE serves as a conceptual and comprehensive strategic framework aimed at the integration and utilization of health data, while BHISA provides the technical framework that defines the implementation structure and standardization methods necessary to achieve that vision.

At present, these initiatives are being led by MIS-DGHS, whereas MIS-DGFP has not been actively involved. Moving forward, it is desirable to promote architecture with the involvement of both MIS-DGHS and MIS-DGFP.

In addition, digital technologies are also being utilized to expand HNP services in underserved and hard-to-reach areas. All initiatives related to digital health and health information are expected to be implemented in coordination with the respective MIS units of the relevant agencies.

8.2 Positioning of Digitalization in the 5th HPNSP and Collection and Analysis of Information on Challenges and Needs

The 5th HPNSP places emphasis on data quality and the use of data for decision-making. It promotes the National Digital Health Strategy 2023 (DHS) to ensure accountable health service delivery through a whole-of-government approach, aiming to build a digital health ecosystem.

Both MIS-DGHS and MIS-DGFP, which are responsible for digitalization in the health sector, have proposed their own Operation Plans (OPs). However, for some components, the policy directions of the two MIS units differ significantly. The following table presents an overview of the OPs from these two departments, along with a summary of key observations regarding the differences in their respective policy directions.

Table 8-3: Summary of OPs in the Digitalization Planned in the 5th HPNSP

Component	Priority Strategies	
	MIS-DGHS	MIS-DGFP
Component 1	**Implementation of the Digital Health Strategy** - Develop an action plan for strategy implementation, including detailed cost estimates and a monitoring and evaluation (M&E) framework.	

<table>
<tr><th rowspan="2">Component</th><th colspan="2">Priority Strategies</th></tr>
<tr><th>MIS-DGHS</th><th>MIS-DGFP</th></tr>
<tr><td></td><td colspan="2">- Establish a dedicated organization responsible for the introduction of electronic medical records (EMRs) and the development of technical infrastructure.
- Form a Digital Health Task Group to oversee and coordinate the progress of digitalization across relevant institutions.
- Establish standard indicators and reporting mechanisms for tracking the use of digital platforms.
- Develop plans and recommendations for the introduction of a health ID system capable of tracking information across both health and non-health sectors.</td></tr>
<tr><td>Component 2</td><td colspan="2"><u>Organizational Capacity Building, Legal Frameworks, Policies, Strategies, Guidelines, and Roadmaps</u>
- Formulate policies, strategies, and roadmaps to promote digital health.
- Establish digital health–related legal and regulatory frameworks that ensure medical data privacy and security, while enabling interoperability and data sharing.</td></tr>
<tr><td rowspan="2">Component 3</td><td><u>Establishment of the NDHIE</u>
- Establish the NDHIE and recommend SHR as the core system, while promoting interoperability with other MIS platforms.
- Apply global standards and benchmarks for data transfer, messaging, clinical terminology, and data anonymization.
- Based on BHISA, develop the Bangladesh National Digital Health Architecture (BNDHA) and the Digital Health Interoperability Framework (DHIF).
- Establish and strengthen a certification body for digital technologies and platforms, ensuring alignment with the government’s digital health strategy.</td><td><u>Establishment of the NDHIE</u>
- Expand the implementation of eMIS to all 64 districts, aiming to achieve paperless operations as successfully done in the 14 districts where it is already in use.
- Recommend eMIS as the core system.</td></tr>
<tr><td colspan="2"><u>Key Observations on the Differences in Policy Directions between the Two Departments</u>
The policy of adopting eMIS as the core system of DGFP is unique to the DGFP. Meanwhile, regarding the use of a health ID, MIS-DGHS has taken the lead, and both MIS-DGFP and MIS-DGHS have agreed to use it as a unique identifier for individuals. However, the basic information linked to the health ID, such as personal and household data, is managed separately by each department, posing technical challenges in ensuring data consistency. In addition, political considerations between the two departments further complicate efforts toward coordination, making it extremely difficult to ensure consistency through interdepartmental collaboration.</td></tr>
<tr><td>Component 4</td><td><u>Expansion of the Application Scope of HIS and e-Health Systems</u>
- Gradually expand the deployment of the centralized Human Resource Information System (HRIS) and develop a system for tracking the activities of healthcare workers.
- Promote the digitalization of public sector hospitals using HIS software, in accordance with the protocols defined by the NDHIE.
- Develop training programs to build the capacity of healthcare workers at all levels in the use of digital health technologies.
- Promote the establishment of digital health through collaboration with private ICT providers.
- Formulate and implement policies for data sharing from private healthcare facilities through the NDHIE.
- Develop a patient health record portal that enables individuals to access their own health information.</td><td><u>Health Information Management and the Use of Digital Technologies</u>
- Ensure seamless data flow through synchronization between DGFP and DGHS HIS systems.
- Utilize government-provided systems for human resource management, procurement, and asset management.
- Introduce robotic process automation to support automation.
- Deploy AI to support decision-making in the provision of family planning services.
- Promote operational efficiency and data utilization through the</td></tr>
</table>

Component	Priority Strategies	
	MIS-DGHS	MIS-DGFP
		automation of back-office functions.
	Key Observations on the Differences in Policy Directions between the Two Departments MIS-DGHS has adopted a policy of gradually expanding the application of e-health[176]. In contrast, MIS-DGFP aims to implement an e-health system without a phased approach, assuming that the relevant health and medical information has already been digitized and focusing instead on leveraging advanced digital technologies. These differing approaches and plans reveal a divergence in the two MIS departments' understanding of the current situation. Notably, the initiatives proposed by MIS-DGFP are not included in the priority strategic actions for health information management and digitalization under the Fifth HPNSP sector program.	
Component 5	**Data Culture for Decision-Making** - Conduct routine data quality reviews at all levels of hospitals and provide training for health administrators on data analysis and utilization. - Develop an analytical and public reporting platform to promote decision-making and information sharing, along with a decision support system for administrators. - Foster and promote a culture of data use within organizations.	**Fostering a Data Culture for Decision-Making and the Use of Big Data** - Establish data-sharing partnerships with various ministries and organizations and provide training on data quality to family planning service managers and providers. - Develop an analytical platform for decision-making using big data technologies.
	Key Observations on the Differences in Policy Directions between the Two Departments Although the two MIS departments differ in their decision-making focus and service targets, both recognize the importance of data collection and human resource development, and have developed similar policies and plans. However, the big data utilization and platform development proposed by MIS-DGFP would require the collection of a wider range of relevant information and more frequent data updates. The findings of this Survey, however, indicate that much of the data currently available is outdated and has not been regularly updated, making the practical application of such technologies unlikely. In contrast, the initiative proposed by MIS-DGHS to foster a data use culture within organizations is considered more realistic and should be prioritized. It is also noteworthy that the use of big data is not included among the priority strategies in the Fifth HPNSP sector program.	
Component 6	**Expansion of HNP Services to Enhance Care in Remote and Underserved Areas** - Expand the provision of HNP services in remote and underserved areas using mobile systems, specifically by strengthening telemedicine services and developing mobile systems to address mental health and neurodevelopmental disorders. - Promote the digitalization of patient diagnostic data at the community and facility levels and establish a system for automatically compiling health statistics in real time. - Develop and install e-learning platforms for the community and facility levels and conduct audits on the effective use of IT systems and digital tools. - Develop a Social and Behavior Change Communication (SBCC) system to improve health awareness among community members.	**Strengthening Digital Infrastructure and Operational Foundations for Health Services** - Provide devices for frontline personnel and ensure secure internet connectivity in public facilities. - Establish an effective system for equipment repair and maintenance services, along with the continuous supply of necessary devices. - Develop and install a Learning Management System (LMS) for frontline personnel to

[176] It refers to healthcare services that utilize Information and Communication Technology (ICT).

Component	Priority Strategies	
	MIS-DGHS	MIS-DGFP
		enhance service delivery at the field level.
	Key Observations on the Differences in Policy Directions between the Two Departments While MIS-DGHS emphasizes the development of systems to deliver health services in remote and underserved areas, along with soft components such as capacity building and behavior change, MIS-DGFP places greater importance on ensuring uninterrupted operations at the field level through the provision of mobile devices and secure internet connectivity. However, providing mobile devices does not guarantee sustainability, as they will eventually need to be replaced. It is therefore more desirable to make use of devices that field personnel already own, such as smartphones. Furthermore, the development of internet infrastructure falls outside the scope of the health sector, and implementation strategies must account for environments where internet access cannot be guaranteed. It is also important to note that the development of digital infrastructure for health services is not included among the priority strategies of the Fifth HPNSP sector program.	

Source: Survey Team based on MoHFW [177]

The Survey confirmed that the OPs of MIS-DGHS and MIS-DGFP show clear differences in Components 3 through 6 in terms of objectives, strategies, and priority areas. These differences are summarized in the table as "Key Observations on the Differences in Policy Directions between the Two Departments".

MIS-DGHS places emphasis on national-level foundational development and institutional approaches, promoting a phased digitalization process. In contrast, MIS-DGFP focuses on expanding its custom-built systems and introducing new technologies for operational efficiency, with eMIS positioned as its core system. However, these proposals rely on advanced technologies such as AI and big data, which require massive data and high maintenance costs. Given that even the existing household and maternal-child information databases have not been properly updated or maintained, there are significant challenges in the application and feasibility of these technologies.

Given the current differences in structure and technical foundations between the two OPs, there remain substantial challenges to integrated operation and ensuring interoperability. Achieving convergence between the two departments is expected to require considerable time. To pursue future integration, it will be essential to promote a shared understanding of the NDHIE framework led by DGHS and to strengthen coordination mechanisms between the two departments. Developing a phased roadmap and building consensus will also be critical.

8.3 Analysis of Donor and NGO Support in Digitalization

(1) Overview of Donor and NGO Support

Currently, various donors and NGOs are working in collaboration with MoHFW to strengthen and expand different HIS components in health sector digitalization.

UNICEF has long supported the development of systems based on open platforms such as DHIS2, OpenMRS, and OpenSRP, which are widely used in many developing countries. For the “Health Service Activity Support System” utilizing OpenSRP, as shown in Table 8.2, UNICEF has been involved since the conceptual stage and has continued to provide support by assigning technical personnel for system development and ongoing maintenance. UNICEF also supports the enhancement of SHR functionality, the strengthening of its integration

[177] MoHFW, the 5th HPNSP PIP

with HIS, and operational management, making it the largest donor supporting health sector digitalization in Bangladesh.

The World Health Organization (WHO) supports the development of a national health terminology standard based on the development requirements of all MIS systems and the priorities of various donors. WHO also promotes the advancement of NDHIE and is working to establish a national-level framework for organizing and standardizing digital health systems. This initiative includes the establishment of new authority structures, policy development, formation of technical working groups, and preparation of implementation guidelines, aiming to integrate both public and private digital health ecosystems.

Table 8-4 below summarizes the support of major donors and NGOs in the health sector digitalization.

Table 8-4: Support Status of Major Donors and NGOs in Digitalization

Donors and NGOs	Information Management System Name	System Overview	Target Services
icddr,b / UNICEF	Pediatric NCD Tracker (OpenMRS-based)	The International Centre for Diarrheal Disease Research, Bangladesh (icddr,b) is supporting a pediatric NCD program across three districts and 20 upazilas and plans to develop and pilot an NCD module based on OpenMRS. The pilot is scheduled to begin in Bagerhat and Kishoreganj in February 2025.	It will cover the following conditions. o Bronchial asthma o Epilepsy o Congenital heart disease o Nephrotic syndrome o Thalassemia
BRAC	mHealth Application (OpenSRP-based)	In 2021, as part of the BRAC Health, Nutrition and Population Programme (HNPP, now the BRAC Health Programme), a mobile application based on OpenSRP was introduced to support Shasthya Kormi[178] in performing their daily activities. The application includes the following functionalities.	o Patient Record System (PRS) o Registration of pregnant and postpartum women o Antenatal care, delivery, and postnatal care services o Child health services o Supervision of Shasthya Sebika (SS)[179] and reporting on the progress of community health service activities)
CARE Bangladesh / JANO Project (EU-funded)	BNNC M&E System	With donor support, the Bangladesh National Nutrition Council (BNNC) introduced a web-based platform for the formulation, implementation, and progress monitoring of the nutrition action plan. The system was first piloted in ten districts and later scaled up nationwide.	o Formulation of multi-sectoral nutrition action plans o Support for plan implementation o Progress monitoring at the district and upazila levels
JSI/USAID TIFA Project (USAID)	Training Management Information System (TrMIS)	TrMIS is a cloud-based system developed to support the Education and Training Unit (ETU), providing real-time data necessary for monitoring, planning, reporting, and resource allocation. The system includes.	o A resource hub for training materials, curricula, guidelines, and job aids o Management of tuberculosis training programs
Surjer Hashi Network (SHN)	Centralized Asset Management System	The centralized asset management system enables real-time tracking of medical supplies and personnel across 134 private clinics. This system has contributed to proper inventory and staffing management, helping prevent resource shortages.	o Resource allocation o Resource utilization management o Financial transaction management

[178] "Shasthya Kormi" are core community health workers trained and deployed by BRAC. They are responsible for providing basic health services, conducting follow-up with pregnant and postpartum women, delivering health education, and carrying out preventive activities.

[179] "Shasthya Sebika" are healthcare volunteers who are responsible for providing initial medical services on a volunteer basis. Sasthya Sebika plays an important role in expanding health services in rural and underserved areas.

(2) Status of Collaboration with Private Healthcare Institutions and Related Challenges

In Bangladesh, the private sector plays a central role in healthcare delivery across both urban and rural areas, and the use of digital technologies is steadily expanding. To adequately address national health needs, the involvement of both public and private healthcare providers is essential. Integrating both sectors would enable the delivery of more comprehensive health services.

However, at present, information sharing from private healthcare providers to MoHFW remains limited, making it difficult to accurately assess the status of healthcare services delivered by the private sector. As a result, it is challenging to obtain a full understanding of national health needs, and to formulate detailed plans that support the development or improvement of a healthcare system that reflects the actual situation. Moving forward, greater information sharing between public and private healthcare providers will be required to support planning efforts aimed at strengthening the health system.

During the coronavirus disease 2019 (COVID-19) pandemic, however, a shared objective, containing the outbreak and strengthening prevention enabled both sectors to actively share information and collaborate rapidly. As a result, a joint information platform was developed within just three months. This accelerated the digitalization of COVID-19-related diagnostic and preventive information and contributed significantly to containment and prevention efforts.

This experience shows that, under the pressure of a national crisis like COVID-19, collaboration between sectors can be achieved in a very short time when a clear common goal is present. Since no significant technical barriers exist, it is now necessary to establish a legal framework governing the registration, operation, and licensing of private healthcare providers under existing laws, and to grant MoHFW the necessary authority. Doing so will facilitate smoother coordination and sharing information between the public and private sectors.

8.4 Analysis of Digitalization Support Approaches by JICA and Other Donors

The strategies and OPs outlined in the 5th HPNSP accurately reflect the current situation of the health sector in Bangladesh and provide a solid foundation for promoting digitalization within the sector. The strategies and initiatives being implemented by major donors are also aligned with the strategies and OPs articulated in the 5th HPNSP. Furthermore, there is a strong degree of consistency with the national strategy of “Digital Bangladesh” as well as with the policies and institutional frameworks on health sector digitalization promoted by MoHFW. In particular, the following priority initiatives, although already supported by major donors such as UNICEF and WHO, represent areas where support from the Japan International Cooperation Agency (JICA) and other development partners could become increasingly important in the future.

- Establishment and promotion of the NDHIE;
- Recommendation of the SHR as the core system of the NDHIE and promotion of interoperability with other MIS platforms; and
- Alignment of existing HIS with open platforms, namely OpenMRS and OpenSRP, to support the development of a digital health ecosystem within the sector

While these initiatives are being advanced with support from donors such as UNICEF and WHO, their smooth implementation remains challenged by siloed administrative structures within MoHFW, suboptimal allocation of human resources, and inefficient implementation arrangements.

In addition, there are digitalization-related support needs in specific areas of the health sector. In particular, high-priority needs for support from JICA and other development partners include NCDs control, the strengthening of nursing education, improvement of healthcare service quality through enhanced capacity of healthcare providers, practical implementation of tele-diagnosis by specialist and tertiary hospitals using telemedicine technologies at the district and upazila levels, and the introduction of electronic medical records and the development of IT infrastructure and digital environments within hospitals.

8.5 JICA Support Areas Within the OPs and Additional Needs Identified through the Survey

While all OPs related to digitalization reflect the support needs desired by MoHFW, the following considerations must be considered when selecting the specific areas to be targeted by JICA.

First, organizations such as UNICEF and WHO have been providing long-term support in digitalization and overlap with their activities should be avoided. Additionally, support for strategy development, the establishment of legal and institutional frameworks, and the establishment and promotion of NDHIE, which is considered one of the most critical components within the OPs, is already being led by these donors. Therefore, these areas have been excluded from JICA's scope of support.

Second, regarding expanding care in remote or underserved areas, NGOs such as Bangladesh Rural Advancement Committee (BRAC), the world's largest NGO, and the Surjer Hashi Network, which focus on outreach programs in economically disadvantaged and rural areas, have a long-standing track record of extensive support. For this reason, these areas have also been excluded from JICA's support scope.

Based on the above, and considering the additional needs and considerations identified through this Survey, the table below summarizes the candidate areas within the OPs that may be considered for JICA support.

Table 8-5: Proposed JICA's Cooperation Candidates Within the OPs and Additional Needs and Considerations Identified through the Survey

Theme	Proposed JICA Support Candidates within the OPs	Needs and Considerations Identified through this Survey
Expansion of HIS and e-Health System Implement ation	The phased expansion of the Central Human Resource Information System (HRIS) and the development of a system to track the activities of healthcare workers are of extremely high support priority.	At the same time, it should be noted that each department within MoHFW operates its own HRIS, resulting in a very broad scope of systems to be covered.

	Under the protocols defined by NDHIE, the use of HIS software will promote the digitalization of public sector hospitals.	Through this Survey, it was confirmed that in many hospitals, patient diagnostic records are still managed in paper form. While the digitalization of health statistics has progressed to some extent, the development of core systems within hospitals remains significantly delayed, revealing a very high level of support needs. OpenMRS+ has already been developed as a core system to promote hospital digitalization. By introducing OpenMRS+, it is possible to achieve hospital digitalization, including patient registration and the electronic management of diagnostic records. Furthermore, by obtaining a health ID from SHR during the operation of OpenMRS+, a mechanism can be established to uniquely identify patients and enable continuous treatment and follow-up. In addition, the integration of OpenMRS+ with DHIS2-DGHS allows for the comprehensive management of clinical and statistical health information, thereby automating the entire process from data collection to public dissemination. The integration and seamless coordination of these systems are consistent with the concept of NDHIE, which aims to ensure the effective management and use of health information, making this initiative highly appropriate as a support measure for promoting in-hospital digitalization.
	Develop a training program to build the capacity of healthcare workers at all levels in the use of digital health technologies.	Although software for implementing hospital digitalization has already been developed, diagnostic records are still managed in paper form in many hospitals. One of the main reasons for this is the lack of information literacy among healthcare workers. To address this issue, it is possible to consider support measures to enhance the information literacy of healthcare workers through future technical cooperation projects by JICA. It is important to make full use of the training materials and accumulated know-how from the many donor-supported training programs that have been implemented to date.
	Promote the establishment of digital health through collaboration with private ICT providers.	Collaboration with domestic ICT providers in Bangladesh falls under the responsibility of the two MIS departments within MoHFW. Each MIS department is supported by donors, and IT consultants have been assigned to promote collaboration with domestic ICT providers. Since it overlaps with the support provided by other donors, it is considered inappropriate for JICA to support this area.

	Formulate and implement policies on data sharing from private healthcare providers.	There are no technical barriers to data sharing from private healthcare providers. By establishing a legal framework for the registration, operation, and licensing of private medical institutions, and by granting MoHFW the authority to enforce such regulations, coordination and information sharing among medical institutions will be promoted. Although this is not directly related to digital support, it is meaningful for JICA to assist in legal framework development and strengthening the regulatory authority of MoHFW.
	Develop a patient health record portal that allows patients to access their own health information.	The development of a patient health record portal has been initiated with funding from UNICEF. However, as patient health records are not yet digitized, effective use of the portal will require coordination with many medical and related organizations. Therefore, compared to other OPs, this area is considered a lower priority.
A culture of data-driven decision-making	Conduct routine data quality reviews at all levels of hospitals and provide training to health managers on data analysis and utilization.	As digitalization advances across all levels of hospitals, enhancing the information literacy of healthcare workers becomes increasingly essential. However, rather than attempting to implement changes across all hospitals simultaneously, a phased approach should be considered, beginning with selected hospitals at each level, and gradually expanding implementation. In parallel, digitalization within each hospital should also be promoted incrementally to ensure a smooth and effective transition.
	Establish an analysis and publication platform to promote decision-making and information sharing and develop a decision-support system for administrators.	Once digital environments are in place within hospitals and the information literacy of healthcare workers has improved, the digitalization and sustained management of diagnostic records and other information will lead to improved accuracy of health data. It is therefore appropriate to undertake this initiative when the quality of health data has reached a sufficient level, and at present, it is considered a lower priority.
	Foster and promote a culture of data use within organizations.	After the digitalization of information within hospitals is achieved, the next key step is to foster regular data use in routine operations. However, this process takes time. As a form of JICA support, it is considered most effective not to promote data culture as a standalone initiative, but rather to integrate it naturally within the ongoing activities of JICA technical cooperation projects.

8.6 Preconditions for Supporting the Proposed JICA's Cooperation within the OPs and the Additional Needs

In implementing support activities for the OPs in the health sector digitalization, JICA must take several preconditions into account. These preconditions were identified based on the findings of this Survey, which confirmed support needs and conducted a concrete examination in anticipation of actual implementation. The following outlines these key preconditions.

Align with Existing Strategies, Frameworks, and Legal Systems Related to Digitalization

It is essential to ensure consistency and coordination with the digitalization strategies and frameworks that UNICEF and WHO, as major donors in this field, have been implementing over the long term.

Adhere to Internationally Standardized Open Platforms, with an Ecosystem-oriented Approach

All activities should be based on globally standardized open platforms, such as DHIS2, OpenMRS, and OpenSRP, and must be planned with a continuous emphasis on ecosystem development.

Maximize Utilization of Existing IT Resources, Allocating more Resources to Operations

One of the greatest challenges in applying information technology and promoting digitalization in Bangladesh's health sector lies in the sustainability of system operations after deployment. While many systems have been developed and introduced, numerous cases show that these systems are not being utilized at the operational level due to unresolved institutional, technical, and financial issues. Even among the systems currently in use, overlapping functionalities and excessive specifications are observed, resulting in only limited returns on invested IT resources. Therefore, JICA's support should be based on the premise of fully utilizing existing systems rather than developing new ones.

Ensure Stakeholder Engagement and Coordination to Establish Sustainable Operations

To establish a sustainable operational framework, stakeholders must be actively involved in the planning and decision-making processes of support activities, and sufficient time must be dedicated to careful coordination with relevant institutions.

This Survey identified numerous cases where system development was advanced without adequately following these processes. Specifically, in many cases, system requirements were defined without sufficient involvement of stakeholders or coordination with relevant bodies, leading to development and implementation of systems with overlapping functions or specifications misaligned with actual needs. These redundancies and inconsistencies have been major factors contributing to the discontinuation of system maintenance and operation. In particular, the bifurcation between HSD and MEFWD has had a significant adverse impact. Stakeholder engagement and institutional coordination are essential preconditions for the development and implementation of HIS.

8.7 Proposed Areas for JICA's Cooperation

Based on the OPs identified in Section 8.5 as potential areas for JICA support, and considering the preconditions for implementation outlined in Section 8.6, specific areas where JICA support is deemed feasible have been identified. The following presents these areas of support, along with their respective descriptions.

1. Enhancing the Quality and Efficiency of Hospital Services through Digitalization

This proposed support focuses on promoting the digitalization of hospital services, including the introduction of electronic medical records, and the integrated management of patient registration, test results, clinical records, and medication data. In particular, the initiative emphasizes the utilization of existing HIS, such as OpenMRS+, to avoid duplication of system development and to ensure the effective use of medical information. By enabling doctors and nurses to access accurate information at the right time, the quality of diagnosis and treatment can be improved. Furthermore, the introduction of systems to manage patient queues and appointment calls will

streamline patient flow within hospitals, reduce congestion, and improve patient privacy. Digitally recorded information will also contribute to public health reporting and statistical analysis, further enhancing overall operational efficiency in healthcare delivery. Target hospitals for this support are expected to align with those identified in the ongoing “Hospital Management Strengthening Project”, and include secondary-level district hospitals in rural areas and tertiary-level hospitals in urban centers. Many of these hospitals currently lack queue management systems, resulting in operational issues such as overcrowded waiting areas, loss of patient privacy, and administrative inefficiencies. Through linkage with this proposed support, improvements can be expected in both the quality of medical services and hospital operations.

2. Supporting HIS Operation through Improving the Information Literacy of Healthcare Workers

Although the implementation of HIS, including electronic medical records, is underway, their effective use remains limited due to insufficient information literacy among healthcare workers. Beyond technical training on system operation, there is a need for capacity building that enables healthcare workers to accurately input and utilize digitalized information to improve the quality of care. On-site, practice-based training and OJT tailored to daily work processes are particularly effective. Collaboration with other donors’ training materials and linkages with JICA’s existing projects will contribute to building a sustainable model for human resource development. Improving healthcare workers’ understanding and motivation will lead to smoother HIS operation and continuous improvement.

By focusing on these two areas, JICA can provide comprehensive support for critical aspects of digitalization. This approach not only contributes to the implementation of digital systems, but also facilitates overall hospital process improvement and enhanced quality of medical services.

Chapter 9 Review of JICA's Project Implementation Results and Assistance Policy and Approaches

9.1 Analysis of Records on the Health Sector Assistance by the Japanese Government and JICA

Table 9-1 summarizes the health sector assistance provided by the Japanese government and the Japan International Cooperation Agency (JICA) in the past, classified from the perspective of health sector programs.[180]。

Table 9-1： Relationship between the Health Sector Assistance and Health Sector Programs

Classification	Aid Modality	Title
Projects supporting the activities of OPs of the Health Sector Program	ODA Loan	Health Services Strengthening Project
		Materhanl, Neonatal and Child Health (MNCH) and Health System Improvement Project
		Maternal, neonatal and Child Health Improvement Project (Health, Population, Nutritiobn Sector Development Program) (Phase I))
	Technical Assistance	Project for Strengthening Measures against Non-Communicable Diseases
		Project for Capacity Building of Nursing Services Phase 2
		Project for Capacity Building of Nursing Services
		Project for Strengthening Health Systems through Organizing Communities
		Safe Motherhood Promotion Project Phase 2
		Safe Motherhood Promotion Project
	ODA Grant	Project for Strengthening Emergency obstetric Medical Services (Phase 2)
		Project for Strengthening Emergency obstetric Medical Services (Phase 1)
Project that is in line with the activities and objectives included in the Health Sector Program but is implemented as independent project outside of the activities in OP	ODA Loan	Materhanl, Neonatal and Child Health (MNCH) and Health System Improvement Project(Components for constructing Diagnostic Imaging Buildibing and Equipment)
Projects implemented separately from the Health Sector Program	Technical Assistance	Project for strengthening the inspection, regulation and coordination functions of the Bangladesh Food Safety Agency
		Research Project for Establishment of Diagnostic System for Kala-Asar and for vector control, Neglected Tropical Diseases
		Reproductive Health Human Resources Development Project
		Pilot project for controlling rhuematic fever and rheumatic heart disease
	ODA Grant	Project for Improving Maternal and Child Health Training Center

Source: Created by the Survey Team based on information posted on the JICA website

A schematic diagram of these three patterns of support is shown in Figure 9-1.

[180] The categories in this table are based on publicly available documents such as preliminary evaluation sheets, and are determined by whether the documents explicitly indicate a relationship with the sector program.

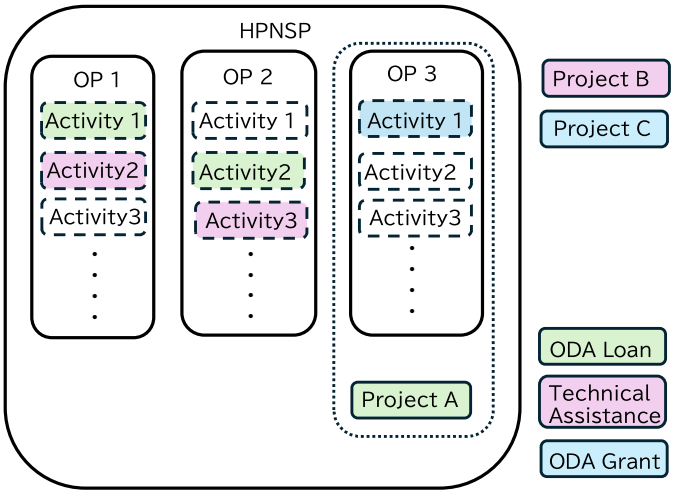


Figure 9-1: Relationship between Previous JICA Support and HPNSP

Source: Survey Team

Of these, the "projects supporting the operation plan (OP) activities of the Health Sector Program" correspond to activities 1, 2, and 3 in Figure 9-1. Although the project does not participate in the Sector-Wide Approaches (SWAp), support is provided for the activities under the OPs within the framework of the Health Sector Program. Therefore, it can be considered that support is provided to achieve the goals of the sector program. In this context, the difference from support provided via SWAp is that the Japanese government/JICA utilizes its own procurement and implementation methods, and the flow of funds does not go through the treasury of the Bangladesh government.

"Project that is in line with the activities and objectives included in the Health Sector Program but is implemented as independent project outside of the activities of OP" corresponds to Project A in Figure 9-1. Although it is not compliant with the OP and operates as an independent project, it addresses issues covered by the Health Sector Program. In this sense, this project can contribute to the achievement of the health sector program in a broad context.

"Projects implemented separately from the Health Sector Program" correspond to Projects B and C in Figure 9-1. These include projects that deliberately address issues not included in the Health Sector Program, such as Rheumatic Fever and Rheumatic Heart Disease Control Pilot Project.

Based on the above, it can be concluded that many of the projects supported by the Japanese government and JICA, although not participating in SWAp, contribute to the achievement of the objectives of the health sector program by supporting the OPs, or by addressing issues targeted by them.

9.2 Good Practices and Problems of JICA's Assistance Approach to the Health Sector Program

As explained in the previous section, most of JICA's assistance supports activities included in the OPs of the

Health Sector Program, or those that are not included in the OPs but contribute to solving issues addressed by the OPs. Therefore, it is generally considered to contribute to achieving the objectives of the Health Sector Program. From the SWAp's perspective, the use of donor's own procurement procedures rather than utilizing the Government of Bangladesh's procurement and financial management system is inconsistent with the objectives of the SWAp, but is still consistent with the policy and objectives of the program.

The challenge is the Ministry of Health and Family Welfare (MoHFW) weak financial management skills. According to JICA Bangladesh Office, managing the projects requires significant time and effort, especially in collecting necessary documents for disbursement under the loan projects. Although the statement of expenditures (SOEs) should be collected by Line Directors (LDs), they are unable to do so. As a result, JICA Bangladesh Office's local staff collect them on their behalf. In the case of yen loan, it is possible to hire consultants for project management, but according to an official of the JICA Bangladesh Office, no consultants have been engaged as the Bangladesh government chose not to hire them.

Weak financial management capacity at the LD level was also pointed out in the Endline Evaluation Report of the 4th Health, Population and Nutrition Sector Programme (4th HPNSP), indicating that this issue is not limited to JICA's reimbursable cooperation projects. In the 4th HPNSP, a Program Management and Monitoring Unit (PMMU) was established, and an OP dedicated to strengthen financial management was included. During the implementation of the 4th HPNSP, the Finance Management OP has been working to build the capacity of LD and LD office staff and facility-level personnel in financial management. However, since staff employment and capacity building, including those for LDs are implemented under OP financed under the Health Sector Program budget, which is considered as one big project, these activities will be terminated when the program concludes. Therefore, even if the capacity is improved during the implementation of the program, there is no mechanism for institutionalizing and sustaining it. If this point is not improved, the abovementioned problem will not be solved.

In technical cooperation, it is reported that, among the master trainers who were trained in the Project for Capacity Building of Nursing Service, only one master trainer remained as master trainer at the start of the second phase of that project. This is an issue related to sustainability of technical cooperation. In the same Project for Capacity Building of Nursing Services, support is being provided to promote accreditation of nursing colleges. However, field visits conducted during the current survey revealed that the nursing colleges are not yet prepared to meet the accreditation standards. Nevertheless, the support primarily focuses on the accreditation process itself, without directly assisting the colleges in meeting the accreditation criteria. In addition, the support emphasizes the establishment of mechanisms for onsite training, which is in the second factor in quality of nursing education rather than improving the content and effectiveness of onsite training. Thus, it is considered that Project for Capacity Building for Nursing Service does not directly address the fundamental issue of the nursing education quality, which is more important. In addition, the application used for data collection on tablet terminals introduced in the Project for Strengthening Measures against NCDs differs from that used by the Ministry of Health and Family Welfare (MoHFW) in other regions and used more broadly, contributing to the fragmentation of the Information and Communication Technology (ICT) system within MoHFW. All these issues appear to stem from how the entry point for support is defined. The OPs are only a small part of the overall health policy within the

broader Health Sector Program. Focusing solely on activities at the individual OP level risks losing sight of how the OPs collectively shape the HPNSP, how they interrelate, and the role each OP plays within the entire program. In addition, the work to be performed under individual OP is fragmented. Therefore, formulating support measures based solely on individual OPs may result to a narrow focus—missing the bigger picture. When structuring projects based on the HPNSP, it is necessary, to address issue from a broader sectoral perspective and to design support projects with a clear understanding of their role within the wider program context.

9.3 Proposal for Candidate Project and Aid Approach for Introducing Results-based Loan, OP Input-based, and DPP

a) Introduction of Results-based Loan

Results-based loan is a lending modality that is well suited to bring about organizational and behavioral changes. Whereas policy development loan is executed upon achievement of the policy matrix, results-based loan focuses on supporting continuous improvement efforts on the part of the borrower country over a specific period. Therefore, the disbursement-linked indicators should be those that are achieved because of organizational reforms and behavioral changes.

In the World Bank's program-for-results loan, technical assistance will be provided as needed to achieve disbursement-linked indicators and to support the efforts of the implementing agency, the department in charge, to achieve the results.[181]. A similar mechanism will also be introduced in the Asian Development Bank (ADB) results-based loan[182]. Therefore, when introducing results-based yen loans, it is necessary to utilize technical assistance to support the achievement of disbursement-linked indicators.

However, the technical assistance employed under the World Bank loan is only intended to support LDs and LD office staff in the implementation aspects of the HPNSP from the procedural aspects such as procurement. Therefore, it does not include support for the implementation of each activity to be implemented under the OPs. Consequently, one possible mechanism would be to provide financial support through results-based loans while at the same time providing technical cooperation and grant aid to support the substance of the activity in the OPs, thereby achieving disbursement linked indicators. As such, it would be effective to consider technical cooperation and grant aid projects that are linked to the achievement of the disbursement linked indicators in parallel with the provision of results-based loans.

Given that JICA's cooperation in the health sector focuses on NCDs control and training of nurses, and that existing projects align with the 4th HPNSP OP, it is proposed to select related indicators from the World Bank's disbursement-linked indicators and those in ADB's upcoming loan. An examination of these indicators, along with the contents of existing projects and proposed technical cooperation projects, was conducted to determine whether these indicators could be used as disbursement-linked indicators for the proposed yen loan. This consideration is based on the assumption that the yen loan will be co-financed with ADB's results-based lending, and considers the Bangladeshi side's preference to minimize the use of multiple disbursement-linked indicators for each donor.

[181] Health, Nutrition and Population Sector Development Program-for-Results, Project Appraisal Document, p.14
[182] Based on the hearing from ADB on 11 February 2025

By adopting ADB's proposed results-linked indicators for the yen loans, both parties can support the implementation of the same policy through common results indicators. In addition, since it is proposed that ADB's results-based loan will share the same disbursement-linked indicators on NCDs with the World Bank's program-for-results loan, Table 9-2 and Table 9-3 also include relevant indicators from the World Bank's program-for-results loan.

The following tables present the Survey Team's proposed disbursement linked indicators, taking into consideration the World Bank's disbursement-linked indicators, the corresponding OPs and JICA's technical assistance. Table 9-2 covers NCDs control and Table 9-3 focuses on the nursing sector. The ADB's proposed results-based indicators are not included because they are still under consideration. By adopting these indicators as results-linked indicators for yen loans, the three institutions can monitor and support the progress of the HPNSP using common indicators, although there is no formal co-financing arrangement between the yen loan and World Bank loan.

Table 9-2: Proposed Indicators for NCDs Control, World Bank Performance Indicators, Related OP and JICA Support

DLI proposed by the study team	World Bank DLI	OP corresponding to DLI	Related JICA assistance
Annual increase in number of patients screened, registered and medicated for hypertension and diabetes in PHC facilities	DLI 5. Strengthening of NCD diagnosos and registration service in primary care level DLI 5.1. Adults diagnosed and registered with hepertension and type 2 diabetes in primary health care facilities in Sylhet and Chattogram divisions DLI 8 Improved access to essential NCD drugs in primary health care level (Upazila) DLI 8.1 Primary health care facilities (UzHC) with uninterrupted drug supply of essential NCD drugs (number)	**4.15 Component A**: 4. Development and updatation of Guidelines, treatment protocol, SOPs, booklets, training manual on major ncds 36. Capacity Building for doctors on Major NCDs 37. Capacity Building for Nurses on Major NCDs 38. Capacity Building for paraheath professionals on Major NCDs (Training for parahealth professional (SACMO, CHCP, MHV etc) on Major NCDs) 40. Orientation Training for teachers, religious leaders, journalists etc on Major NCds (organization of seminar, symposium, roundtable discussion for various)stakeholders on major NCDs) 41. Seminar, Symposium, Rountable Discussion at all level (divisional, District, UHC)(Public Awarness program through seminar/workshop at all level) 42. Consultative Meetings, Technical Committee Meeting, Steering Committee meeting, Reviewers meetings and perdiem. Finalization Workshop, Dissemination workshop, launching ceremony etc) (Development & updatation workshop on various national mguidelines /treatment protocols/ strategy/SOP etc)	**(On-going)Project for Strengthening Measures against Non-Communicable Diseases** [Outcome 1] Strengthening of NCD management model [Outcome 2] Strengthening and revitalizing the quality improvement committees and business improvement teams of district hospitals and district multi-purpose health facilities [Outcome 3] Strengthening and revitalizing the core teams at district and district levels to promote NCD prevention awareness activities based on community clinics **(New) Project for strengthening measures against non-communicable diseases** 3. Support to CC fo NCDC
Establishment of a referral system among PHC facilities; CC, USC, and UzHC	DLI 7. Establishing functional and timely referral at the Upazila level DLI 7.1 System for functional and timely referrals to Comprehensive Emergency obstetric and Newborn Care initiated DLI 7.2 Primary health care facilities (UzHC) are ready to provide referral services through staff orientation and training based on national guidelines DLI 7.3 Primary health care facilities (UzHC) performibng timely referral based on national guidelines	**4.8 Component 2** : Activity 6. Sub Activity 1. Establish Integrated and coordinated care through establishing institutional referral mechanisms to (and from) higher level and lower-level facilities to ensure appropriate utilization of services, improve overall service quality and increase efficiency 2. Develop comprehensive/ integrated standards, protocols, guidelines and tools for a functional referral system. 3. Capacity development of care providers on institutional referral mechanisms 4. Development of digitalized referral system in partnership with MIS	**(On-going)Project for Strengthening Measures against Non-Communicable Diseases** [Outcome 3] Strengthening and revitalizing the core team at the prefectural and district levels to promote NCDs prevention and awareness activities based on community clinics **(New) Project for strengthening measures against non-communicable diseases** 1. Include USC in NCDs program 2. Providing support for USC for NCDC 3. Support to CC for NCDC

Source: Created by the Survey Team based on information from MoHFW, JICA, and the World Bank[183]

The ADB's proposed results-linked indicators in NCDs control are expected to be adopted in the yen loan in the areas of screening, registration, and medication of hypertension and diabetes in primary health care (PHC) facilities. JICA's existing projects have strengthened NCDs control measures at Upazila Health Complex (UzHC), which is one of the PHC facilities envisaged by ADB. Therefore, the existing NCDs control project's efforts to strengthen NCDs control at UzHC will contribute to strengthening the screening, registration, medication, and referral systems for hypertension and diabetes in PHC facilities.

[183] The World Bank, Health, Nutrition and Population Sector Program-for-Results Project Appraisal Document, MoHFW, the 5th HPNSP Project Implementation Plan, and JICA's website.

Table 9-3: Proposed Indicators for Nursing Sector, World Bank Performance Indicators, Related OP and Related JICA Support

DLI proposed by the study team	World Bank DLI	OP corresponding to DLI	Related JICA assistance
The percentage of nursing faculty who have learned teaching methods such as clinical education and simulation training	Not applicable as DLIs are limited to Midwifery	OP-34 Component 4: 4.Establish a national E-library and E-book at central level with expansion at institutional levels and strengthen the existing library facilities. 5.Establish 4IR based simulation labs in all nursing colleges and selected intuitions. 6.Capacity building training on simulation lab and nursing and midwifery lab. 8.Provide instrumental support for digital classrooms including computer and language labs in education institutions Compoent 5: 3. Arrange workshop, seminar, meeting Among faculties and hospital nurses to ensure effective students clinical practices. Component 6: 2.Support for continuous monitoring, supervision, and evaluation of clinical practice placement for nursing students by developing Clinical Nurse Teacher (CNT) including piloting of preceptor-guided nursing internship 3. Arrange workshop, seminar, meeting Among faculties and hospital nurses to ensure effective students clinical practices.	**(On-going) Project for Capacity Building of Nursing Services Phase 2** [3-2] Placement and training of clinical training instructors at target affiliated hospitals [3-3] Conducting training for current nurses regarding clinical nursing training [3-4] Creation of a system for placement and training of clinical training instructors and promotion of training for current nurses
Number of accredited nursing education institutions		OP-34 Component 1: 6.Promote nursing and midwifery institutional accreditation in both public and private organizations.	**(On-going) Project for Capacity Building of Nursing Services Phase 2** [1-3] Nursing University Accreditation
Improving the quality of education for nurses 1. Approval and adoption by MoHFW of teaching materials for subject based nursing education 2. Implementation of classes using teaching materials for subject based nursing education (number of schools utilizing the materials) 3. Approval and adoption by MoHFW of nursing manuals and standard procedures for in-service nurses		OP-34 Nursing and Midwifery Education Component 1: 3. Update/develop curriculum/policy guidelines, tools, Standard Operatin Procedures (SOPs)/ care plan to improve nursing and midwifery education and institutional functioning Component 2: 1. Capacity development training on curriculum, syllabus, lesson plans, organizational leadreship, ICN Ledaership for Change, management, administration, fainance and others selected issues for institutional levels, faculties and related officails 3. Capacity enhancement training for nursing and non-nursing officails and support staff through relevant skills development program 4. Develop subject-based teaching module to improve the implementation system of the curriculum and syllabus 5. Provide subject-based training for nursing and midwirfery teachers for all education institutions (revised)	**(On-going) Nursing Service Human Resource Development Project Phase 2** [1-2] Career path development for nurses **(New) The Quality of Nursing Education enhancement Project** 1. Development of teaching materials for faculty in subject based nursing education 2. Implementation and monitoring of subject based education using teaching materials by nursing university faculty 3. Development of specialized teaching materials for students 4. Development of nursing manuals and standard guidebooks
Establishment and implementation of a continuing and specialized education system for in-service nurses 1. Formulation of a continuing education program in line with the CPD framework, adoption of the program by MoHFW 2. Formulation of an implementational settings for continuing education (implementing organization, affiliated hospitals, selection of annual program, securing of instructors) 3. Establishment of a system for on-site training implementation in line with the continuing education program at both the Nursing Institute and affiliated hospitals, adoption of implementation by MoHFW 4. Establishment of a medical service implementational settings based on the nurse manual and standard procedure manual (number of hospitals)		OP-23 Nursing and Midwifery Services Component 1: 9. Establish the system for promoting clinical nuerses and midwifery teachers training as well as in - service training or clinical practices Component 2: 1. Capacity-building training for nurses and midwives at local and abroad on clinical and administrative leadership, management supervision and evidence based clinical competencies 2. Provide training to the organizational and administrative nurse and midwifery managers and administrators in selected issues 6. Provide orientation, refreshment and in-service training including job description, service rules. Ethics, behavioral change communication etc. 7. Provide specialized training for clinical nurses and midwives on different specialties (respiratory, dialysis, pediatric, SCANU, oncology and palliative, psychiatric, cardiac, geriatric, intensive care & coronary care, Infection Prevention & Control (IPC), Emergency & Critical care, Nutrition, comprehensive SRHR, Autism, etc.) 12. Establish a framework to enhance Continuous Professional Development (CPD) training program for the nurses & midwives. OP-34 Nursing and Midwifery Education Component 2: 3. Capacity enhancement training for nursing and non-nursing officials and support staff through relevant skills development program 10. Promote the system for Continuing Professional Development program / activities for nursing and midwifery faculties	**(On-going)Project for Capacity Building of Nursing Services Phase 2** [1-4] Conduct training for nursing administrators/managers in specific issue areas [1-5] Establish a framework for continuing professional development for nurses [2-5] Improve the quality of nursing education by field **(New) Project to improve nursing services through continuing education for nurses** 1. Improving continuing education for in-service nurses 2. Improving the implementation system for continuing education 3. Establishing a settings for implementing work based on standard manuals at hospitals

Source: Created by the Survey Team based on information from MoHFW, JICA, and the World Bank [184]

[184] The World Bank, Health, Nutrition and Population Sector Program-for-Results Project Appraisal Document, MoHFW, the 5th HPNSP PIP, and JICA website.

In the field of nursing, two indicators are common to ADB's proposed results-based indicators, namely: the number of nursing college professors educated in clinical education and simulation training, and the number of medical education institutions that have received accreditation. For the former, Phase 2 of the Project for Capacity Building of Nursing Service is expected to indirectly contribute to the fulfillment of the indicator by strengthening the practice of in-service training for clinical nursing at both nursing colleges and hospitals that host these trainees. For the latter, Phase 2 of the Project for Capacity Development of Nursing Service also supports efforts to increase the number of nursing colleges eligible for accreditation, thus the increase in number of accredited medical educational institutions with the support from the abovementioned project will contribute to the achievement of the corresponding results-based indicator. It is believed that continuing these efforts during the implementation period of the HPNSP will lead to an improvement in the results-based indicator.

The period toward the end of the first phase of Phase 2 of the Project for Capacity Building of Nursing Service coincided with the development of OPs for the 5th HPNSP. During this time, the JICA Technical Assistance project team recommended several issues, that were identified as challenges during the project's implementation, to be included in the nursing-related OPs of the 5th HPNSP. In fact, many of them are reflected in the OPs. Since these activities were proposed by the JICA project, continued support from JICA is appropriate. Therefore, the following disbursement-linked indicators have been selected for the following reasons.

- Establishment and implementation of a system of continuing and professional education for in-service nurses: Since newly graduated bachelor nurses are unable to find employment in public sector medical institutions due to the constraints of civil service personnel quotas, it is considered important from a policy perspective to focus on strengthening the capacity of in-service nurses to improve the current situation.

b) Implementation on an OP Input Basis

As described in Section “10.1. Analysis of Health Sector Assistance by the Government of Japan and JICA", to date, JICA has independently selected support activities of OPs from the health sector program for its loan, technical cooperation, and grant aid (part of the program), and has formulated and implemented projects under the respective cooperation schemes. To support the 5th HPNSP, it is envisaged to provide results-based loan and technical cooperation projects that support the achievement of the performance indicators of the OPs on input basis. At the same time, for the procurement of facilities and equipment, it is proposed to extend a loan for DPP-based projects, separately prepared from the 5th HPNSP by the Government of Bangladesh.

In the case of implementation on an OP input basis, since the HPNSP itself is approved by the Executive Committee of the National Economic Council (ECNEC) as a single DPP, implementation approval for the individual projects is not required. As of February 2025, the HPNSP had still not received official approval, preventing the implementation of activities described in the OPs on an OP input basis. If this situation continues in the future, activities listed in the OP could be implemented on a DPP basis by separately preparing and obtaining approval as a DPP project that describes only the relevant activities.

c) Implementation on a DPP Basis

The MoHFW is requesting DPP-based assistance separately from HPNSP for the construction of some facilities. These requested projects will be handled with either loan or grant assistance depending on the scale of the project.

9.4 Analysis of Assistance Approaches for Technical Cooperation Projects (Existing Agreements and OP-based Methods)

Within the Bangladesh government, approval of an internal document called Technical Assistance Project Proposal (TAPP) is required for any donor technical cooperation project[185]. In the case of JICA's technical cooperation, implementation arrangements for individual technical cooperation plans are separately concluded based on the framework agreement "Agreement between the Government of Japan and the Government of the People's Republic of Bangladesh on Technical Cooperation". This implementation arrangement is concluded for each technical cooperation project, and a TAPP is prepared and approved for each relevant project.

On the other hand, in the health sector program of the Government of Bangladesh, the ECNEC approves the Program Implementation Plan (PIP), which contains the OPs describing the projects to be implemented in the program, and upon approval of the PIP, all individual projects in the OPs included in the PIP are approved in place of TAPP. As a result, there is no need to prepare and obtain approval for TAPP for each individual project when providing technical cooperation. As a result of the above arrangement on the Bangladeshi side, the yen loans and technical cooperation projects (including some grassroots projects) that JICA has granted in the past for the 4th HPSNP are included in the PIP and no separate TAPP had been approved.

Due to the above treatment of the Bangladeshi side, the timing for reflecting JICA's project activities and cost items is limited to when the sector program is formulated or revised (approximately two and a half years after the start of the program). During the implementation of a yen loan project or a technical cooperation project, there may be changes or additions to activities related to individual project or to costs incurred by the Bangladesh government, and the PIP will need to be revised within the MoHFW to reflect such changes. This work will require six months, as the Bangladeshi side will be required to revise the PIP in the same manner as it would normally revise the TAPP. This procedure is also subject to the timing constraints of the changes. In the case of the Health Sector Program, the MoHFW maintains that the same standards should be applied to all activities in the OPs. As a result, discrepancies arise between the costs stipulated by JICA under the Technical Cooperation Agreement and the Individual Technical Project Agreement. Furthermore, the standardized costs on the MoHFW and the burden of obligations to be borne by the Bangladeshi side, i.e., the cost estimates under the Agreements do not match with

[185] TAPP approval levels are as follows:
(a) If the total planned amount is less than BDT 100 million (10 crore), including both the Bangladesh and donor contributions, and the Bangladeshi contribution is not more than 30% of the total planned amount, the plan will be approved by the ministry in charge of the project.
(b) If the total amount of the plan exceeds BDT 100 million or the Bangladeshi share exceeds 30% of the total plan amount, the plan will be submitted to the Planning Commission. After confirmation by the officer in charge, the plan will be reviewed by the PEC, whose members are the undersecretaries of the ministries concerned (the chairman is selected by the Planning Committee), and finally approved by the Minister of Planning or ECNEC, depending on the size of the project.
(c) Basically, plans totaling BDT 500 million or more are approved by ECNEC, chaired by the Prime Minister.

those of the Health Sector Program.

The Health Sector Program is designed in such a way that the plan developed by the Bangladesh government is implemented through its internal procedures, including budget execution. Accordingly, SWAp is adopted as a support method that aligns this implementation approach. The SWAp is not constrained by the donor's procurement procedures, as the donor's funds are used as part of the Bangladesh government budget. In addition, a pooled fund is established for technical assistance, to which donors contribute funds to the pooled fund based on a predetermined terms of reference (TOR). In this arrangement, it is not possible for donors to clearly identify how their specific contributions are used. On the other hand, changes that occur during the implementation phase of individual projects will be handled by the Bangladeshi side on its own initiative, without donors' involvement in the related procedures. Only the results will be subject of evaluation by the donors.

In view of the above, the mechanism for implementing technical cooperation for individual OP projects within the Health Sector Program, based on a technical cooperation agreement that defines content specific only to Japan's cooperation with Bangladesh, is fundamentally different from the Sector Program's operational mechanism. In addition, as previously mentioned, the timing of the revision of the PIP is also restricted. Consequently, supporting individual activities included in the Health Sector Program based on the existing agreement presents difficulties on both sides, due to a fundamental mismatch between the two mechanisms.

In the 5th HPNSP, if JICA continues the method implemented in the 4th HPNSP for individual activities included in the OP (i.e., loans extended to specific projects in the case of yen loan, and technical cooperation project based on technical agreement), as long as the Bangladesh government is forced to follow its own procedures, it is unlikely that there is a better solution to the above issues, and the same situation as in the past is expected to continue.

9.5 Issues to Consider When Reviewing the Health Sector Programs

The current survey revealed structural impediments that serve as bedrock obstacles across all areas targeted for specific proposals, i.e., NCDs control, nursing services and education, ICT, and facilities and equipment. These impediments make it extremely difficult to improve the quality and quantity of health care services in the sector. Below is a summary of the identified structural impediments and the proposed approach for developing a project taking challenges into consideration.

Underlying the structural impediments that constitute bedrock obstacles is the shortage of personnel in the field, including in medical and nursing education. As a result, existing facilities are unable to provide the level of medical services they are expected to provide, even as the overall supply of medical services falls short of demand. This challenge stems from the fact that all public sector health care workers, including those at the headquarters of MoHFW, medical facilities, and nursing colleges, are civil servants. For this reason, in addition to budgetary constraints on staffing, the MoHFW is subject to the constraints of civil service management by the Ministry of Public Administration, which fall outside its own authority. Looking at the MoHFW budget alone, it does not reach the WHO recommendation of 5% of gross domestic product (GDP). Judging from past trends in budget size, it is realistic to assume that a significant increase in the budget is unlikely to happen in the near future. Therefore,

it is realistic to assume that a dramatic increase in the number of both physicians and nurses is unlikely in the near future. Although the MoHFW's budget is also insufficient, one short-term measure to increase staffing is to fill vacancies in sanctioned posts. However, the failure to implement such measure is the lack of comprehensive understanding of the sector and absence of policy actions aimed at effectively utilizing limited resources. This point, when all is said and done, leads to the detrimental effects of the bifurcation between Health Service Division (HSD) and Medical Education and Family Welfare Division (MEFWD). The inefficiency in resource allocation on the front lines of health care due to bifurcation was also pointed out in the Endline Evaluation Report of the 4th HPNSP. Even though health policies are implemented separately in each field, the function of determining and coordinating policy priorities, interrelationships, and securing financial resources from a comprehensive perspective is essential. However, the adoption of the HPNSP as a five-year policy implementation plan, which is vertically organized, tends to focus on policy implementation within each subsector. This approach gives the impression that it lacks guidance on how individual policies are positioned and linked from a sector-wide perspective, and on policy implementation at the individual department level. While the 5th HPNSP does include an explanation of the interconnections among Ops, significant concerns remain. For example, when looking at the OP related to NCDs control, although related OPs are listed, a review of the Annual and Endline Evaluation Reports raises questions about whether coordination exist among OPs at the activity level, whether LDs coordinate effectively during implementation of each activity, or whether coordination among related OPs is supervised and guided at the HSD and MEFWD levels. All of these result in a general negative spiral of inadequate service delivery in the field, including the MoHFW's inability to fully execute its budget and the lack of a functioning referral system. The MoHFW budget shortfall is also related to the internal policy priorities of the Bangladesh government. While advocating for the importance of the health sector to the core body of government and negotiating increased budget allocations are essential, the Survey Team observed that limited strategic thinking rooted in the lack of comprehensive understanding of the sector by MoHFW cadres, which also contributes to missed opportunities for delivering optimal healthcare services, even in the face of limited budgets and inflexible budget execution systems. Evaluating the policy of providing free health services by the public sector, from the financial perspective reveals its long-term sustainability is at risk especially the increasing number of patients with NCDs and the current challenges in budget acquisition. Taking into consideration of these factors, it is necessary to reexamine the health sector in Bangladesh from its very origin to provide health care services that are improved from the current situation.

The above structural challenges are not of a nature that can be expected to improve the health system through targeted intervention, as they constitute the fundamentals of the health system. While the 5th HPNSP is a development budget that defines the health sector activities for the next five years, many of these issues lie within the domain of the recurrent budget. For example, the OP for nursing and midwifery services (OP 23) includes support activities related to the creation of new posts for nurses and midwives, yet the number of new posts created is not included in the OP's results indicators. Also, in the OP on human resource development, the increase in the number of health service workers is not included in the OP results indicators. More to the point, given the separation between development and non-development budgeting mechanisms, efforts to eliminate these structural impediments through the implementation of the 5th HPNSP will not lead to fundamental solutions

without adequate coordination between the two. The World Bank's support to the 5th HPNSP includes midwifery recruitment and placement in Chittagong and Sylhet districts as an outcome indicator in its efforts to increase the number of midwives, but aside from this, there is no specific reference that all aspects of the health sector are taking a head-on approach to bedrock obstacles in 5th HPNSP. Addressing these bedrock obstacles will require political will and very strong leadership from the Bangladeshi side, but even under such leadership, implementation is expected to be highly challenging. It is up to the MoHFW to try to overcome these bedrock obstacles. If Bangladeshi side does not request assistance to overcome such obstacles, what donors can do is only to point out the problems and to provide advices. In view of the current situation, JICA should not blindly provide support for the external expansion of medical services as the Bangladeshi side desires it, but should focus on improving the current situation, even if it is only a one small step under the current rock-bottom obstacles toward providing medical services as they should be. Based on this premise, the following are the ideas for the proposed projects in each field.

In the NCDs control, it remains unclear to what extent accurate diagnosis and patient follow-up according to their health status are being consistently implemented, since there are not enough number of doctors posted relative to the number of patients visiting NCDs corners, and the fact that community-level screenings are not conducted by non-physician. Therefore, it is possible that the treatment of NCDs, which is introduced relatively late in healthcare policy, may become a pork-barrel countermeasure rather than a substantive one. Therefore, it is considered necessary to make NCD interventions more effective and efficient. This perspective includes the management of drug procurement and distribution to the patients. The direction of future support is to further strengthen and consolidate the system to ensure the services at the medical institutions which have been the target of JICA's support in previous projects.

As for nursing services, there is a critical shortage of nurses, and regular employment is not expected. In the absence of consistent hiring, there is little incentive to invest in training nurses. On the other hand, in the field of nursing education, on-site training programs intended for nurses to acquire practical skills are not functioning properly vis-à-vis its objective, but there is also shortage of qualified instructors. Teachers teach subjects outside their area of expertise, so it cannot be said that they are providing sufficiently appropriate education in each subject. Even if newly graduated nurses educated in such an environment are employed in the medical field, they are unlikely to receive proper guidance from the senior nurses, and these factors collectively lead to a decline in the overall quality of nursing services. In contrast, in the field of medical care, the roles nurses are supposed to play are not being fulfilled adequately due to a shortage of manpower. Consequently, even if skill-enhancement training is provided, nurses often lack the time to apply what they have learned into actual practice in their daily work. The challenge is how to create an environment where nurses can deliver high-quality medical services by improving their own abilities under the current constraint situation. Taking these challenges into consideration, the direction of future support should focus on establishing a system to enable nurses to acquire basic skills during their education, and clarifying the roles of in-service nurses and strengthen their abilities, including management skills, as the first step on the long-term improvement of nursing services.

Regarding facilities, the issue of doctors and nurses not being assigned immediately after the completion of a new

hospital was also pointed out in the Endline Evaluation Report of the 4th HPNSP. The hiring of medical personnel for a newly constructed hospital can only begin once construction is finished, resulting in newly built hospitals remaining unused for extended period of time due to lack of medical personnel. In light of this current situation, there is concern that continued construction of new facilities will cause further deterioration. Therefore, rather than building new medical facilities, rebuilding the existing aged facilities and improving hospital management on the premise that they will be operated by existing staff, will lead to an improvement in the current situation in which medical services are not being provided at the level they should be. Support should focus particularly on tertiary hospitals, which are not able to provide the expected level of medical services. These facilities face overcrowding with patients in aging buildings under the situation where referrals are not functioning. Rebuilding efforts should include increasing the number of beds, as the current numbers are insufficient to accommodate all in-patients. Regarding equipment, maintenance and management system have not been sufficiently ensured due to lack of culture regarding maintenance and management, poor asset ledger management, and insufficiently coordinated budget requests between development and non-development budgets. Therefore, even if advanced medical equipment is introduced, there are doubts as to whether the introduced equipment will be used effectively and continuously. In addition, there is the issue of securing technical staff to operate the advanced medical equipment and ensuring their competence. Considering the current situation, a realistic scenario for the provision of equipment to be considered in the future is to supply only essential equipment when replacing outdated equipment particularly in conjunction with rebuilding or establishing a new medical department at the hospitals. This ensures that the equipment provided can be utilized effectively.

Regarding the Management Information System (MIS), a variety of incompatible systems already coexist and data is stored in each system, and the system is not in an environment where data can be utilized in a consistent and comprehensive manner. The biggest challenge is that these systems were not designed under a unified philosophy, but were built as part of a project to solve a local problem, consequently mutual compatibility does not exist[186]. For example, JICA's community-based health promotion project uses a NCDs information management system developed by the International Center for Diarrheal Disease Research (icddr,b), wherein data collected are stored on icddr,b server rather than with the MoHFW. The system is not compatible with the system used by the MoHFW's NCDs control program, called Simple, which is designed to store data in DHIS2. The DHIS2 system used by MoHFW is also separately managed by HSD and MEFWD, each with its own database, and the input items for both are not shared between them. This separation stems from the bifurcation of HSD and MEFWD, making information system unification difficult. At this point, without ensuring compatibility among these existing systems and building a mechanism that enables the entire sector to obtain and utilize data from a unified source, the introduction of a new system, or even the use of a specific existing system, may contribute to the further aggravation of fragmented situations. Therefore, when introducing ICT systems in hospitals as requested by Bangladesh, careful consideration should be given to the compatibility among systems so that the databases will be unified and comprehensive utilization will be possible in the future.

[186] The various existing systems are described in detail in Chapter 8 of this report and in Section 5.8 of the preceding “Health Sector Information Collection and Verification Survey Final Report”.

Chapter 10 Cross-cutting Perspectives in Considering Assistance Policies and Approaches

10.1 Cultural Background and Customs Unique to Bangladesh

Bangladesh has its own unique areas and customs, characterizing a fusion of South Asian traditions and Islamic culture. Ninety-eight percent of the population is Bengali, with ethnic minorities such as the Chakmas (Buddhist) and the Marmas distributed mainly in the Chittagong Hills[187]. Around 91% of the population is Muslim (Sunni), and daily life in the city is strongly influenced by Islamic culture.

Although the nuclear family has been spreading in urban areas in recent years, the society is family-centered nationwide, and extended families are the norm, with grandparents, aunts, and uncles living together in many cases. In addition, the society is characterized by a seniority-based and patrilineal system, with the older male members of the family tending to have a greater say in family affairs.

Approximately 60% of the population lives in rural villages, where the culture of traditional agricultural communities remains strong. In such a society, villagers help each other (samojukta boodi = spirit of mutual support), and a simple, industrious lifestyle is lived in accordance with natural and communal ties. These characteristics of rural society provided the basis for the acceptance of the microfinance concept by Grameen and Brac. On the other hand, in areas without electricity or internet access, oral traditions and decision-making by village elders are still considered important.

Table 10-1: Characteristics of Culture of Bangladesh Society

Society and Culture	Characteristics
Bengali Ethnic Culture	Strong pride in language, writing and music
Religious Traditions	Islamic culture influences all aspects of life
Family and Social Structure	Seniority system and patrilineal lineage
Urban-Rural Differences	Rural culture remains strong despite urbanization

Source: Survey Team

10.2 Gender

Gender issues in Bangladesh have complex aspects, as they are deeply linked to social structure, culture, religious background, and economic development. On the other hand, there are positive changes such as women's entry into politics and progress in education. For example, as an overview of gender equality, the Gender Gap Index (2023) ranks the country 59th (relatively high) out of 142 countries in the world, and while (1) education and political participation are highly rated, (2) economic participation and health are considered problematic. Overall,

[187] Website of MOFA of Japanhttps://www.mofa.go.jp/mofaj/area/bangladesh/data.html#section1 (Accessed on 19 March 2025)

while some parts of the country are highly rated globally, there are persistent structural inequalities. In Muslim families, as mentioned above, patriarchs have a strong voice, and their decisions strongly influence whether women could visit medical facilities.

Areas where gender issues remain include (1) education, (2) economic activities, and (3) family, marriage, and the legal system.

(1) Education

In elementary and junior high schools, the enrollment rate of girls is higher than that of boys, and scholarship programs for girls are widespread, but the gender gap tends to widen when students enter high school and university. In rural areas, early marriage and dropping out of school due to childbirth among female students are also observed.

(2) Economic Participation

The RMG (garment industry) employs approximately 4 million workers, the majority of whom are women. These workers are often employed on a part-time basis, and their wages and working conditions are considered precarious. In the labor market, the labor force participation rate for men is estimated at 80%, while that for women is 36% (in 2023), a large difference can be seen.

(3) Family, Marriage, and Legal System

The rate of early marriage among women remains high (about 50% marry before the age of 18), which is a major impediment to women's participation in society. It is also reported that the dowry culture remains, making marriage an economic risk for poor women.

(4) Domestic Violence (DV)

Domestic violence (DV) is very serious and is higher than reported. Although legislation on violence against women (e.g., the Law for the Prevention of Repression against Women and Children) exists, the police and judiciary are said to be inadequate to deal with the situation.

Despite this situation, there have been some positive developments in the gender area. Women's participation in politics has been progressing, with women serving in political office for many years, including former Prime Minister Sheikh Hasina. In addition, Bangladesh Rural Advancement Committee (BRAC), Grameen Bank, and others have been supporting women's economic independence (micro-credit), and many results have been achieved.

10.3 Age

‘Age’ in Bangladesh needs to be stated from multiple perspectives.

The first is the large number of young people, with 45% of the population under the age of 25 (there is also 30%

of the population under the age of 15), and whether the country is effectively utilizing the period of population bonus. Despite this situation, there is a strong tendency for young workers to go abroad to work due to the high unemployment rate among urban college graduates, lack of job training opportunities, and the fact that most of the working age population is in informal employment and low-wage labor. Therefore, the supply of labor for emerging fields such as Information and Communication Technology (ICT) and manufacturing and the provision of educational opportunities that meet their needs and improve the quality of their skills are policy issues.

The social structure of Bangladesh is characterized by many young people, but due to a decline in the birth rate and an increase in average life expectancy, the country is expected to transition to an aging society by the 2040s. On the other hand, the underdeveloped pension system (none in the private sector or in rural areas), lack of medical infrastructure, absence of a long-term care system, and the fact that many senior citizens are dependent on their families and are not eligible for welfare services are some of the challenges, and in urban areas, the growing trend toward nuclear families is leading to some senior citizens becoming isolated.

In addition, about 50% of women marry before the age of 18 (early marriage), which tends to inhibit educational opportunities and freedom of choice of occupation.

Table 10-2: How Early Marriage Hampers Women's Empowerment

Challenges	Impacts
Termination of Education	Loss of opportunities for employment and independence due to low educational attainment
Early burden of childbirth and household chores	Confined within the family, making social participation difficult
Financial dependence	Increased financial dependence and weakened right to self-determination
Impact on health	Risks from childbearing at a young age, affecting long-term employment and learning

Source: Survey Team

These challenges can also be categorized by age group as follows:

Table 10-3: Major Challenges by Age Groups

Age Groups	Major Challenges
Young（Age 0－24）	Education, employment/labor, social participation, early marriage
Working Age（Age 25－64）	Skill development, migrant workers, income inequality, urban concentration

Senior citizens（Over age 65）	Social security, long-term care, health care cost burden, isolation

Source: Survey Team

It should be noted that aging is a predictable challenge, and the following are possible directions for policy approaches in Bangladesh.

- Capitalize on the demographic dividend through youth investment (education, skills, entrepreneurship)
- Develop a social security system in anticipation of an aging population
- Comprehensive human rights protection against age disparities (children, women, senior citizens)

10.4 Disability

Disability policy in Bangladesh has been gradually being developed in recent years, influenced by international trends (e.g., the United Nations (UN) Convention on the Rights of Persons with Disabilities). However, although systems are being developed, there are many challenges, including the gap between reality and ideals, differences in support between urban and rural areas, and social stigma.

Following the ratification of the UN Convention on the Rights of Persons with Disabilities in 2007, Bangladesh enacted the Law on the Rights and Protection of Persons with Disabilities (2013) and established the National Disability Policy and the National Social Security Strategy (2015) to strengthen support for persons with disabilities and their human rights. In addition, the Five-Year Plan includes inclusive education for persons with disabilities and expansion of employment opportunities, which are important policy challenges.

The following table summarizes these support measures.

Table 10-4: Sectoral Assistance Measures in Bangladesh

Sector	Contents
Education	Promotion of inclusive education, establishment of special needs schools (unevenly distributed in cities)
Health and Rehabilitation	Provision of basic rehabilitation at public medical institutions
Employment	Around 1-2% of the quota for employment of persons with disabilities is allocated for the recruitment of civil servants. However, the implementation rate is low
Social Security	There is a small monthly allowance (disability allowance) for persons with disabilities. BDT 750/month
Accessibility to public facilities	Barrier-free access to public facilities is underway, but limited and mainly in urban areas.

Source: Survey Team

In Bangladesh, a framework for protecting the rights of persons with disabilities is in place. However, effective

support will require a change in the awareness of society, the ability of the government to implement, and the correction of regional disparities.

10.5 Regional Disparities

Regional disparities in Bangladesh are evident in many areas, including the economy, infrastructure, education, health, and employment. This is one of the major challenges in the country's development. There is a marked concentration in urban areas, represented by the capital city of Dhaka, which needs to be addressed. As a result, the basic structure of the country is polarization between urban and rural areas, and the economic and social disparities (access to infrastructure, education, employment opportunities, and services including healthcare) between urban areas (Dhaka and Chittagong) and rural areas (northwest and southwest) are widening.

The following Table 10-5 summarizes the characteristics of the different regions.

Table 10-5: Characteristics and Challenges by Region

Region	Characteristics and Challenges
Metropolitan areas (Dhaka, Ghazipur, Narayanganj)	・Economic center, industrial concentration (IT, medical factories, etc.) ・Population concentration, good infrastructure ・Overcrowding, lack of housing, traffic congestion
Chittagong (Port City)	・Second largest economic city, trade center due to port ・Investment in industry and logistics
Northwest (Rajshahi Region, etc.)	・Lagging behind in development ・Low rainfall, unstable agriculture ・Weak educational and industrial base
Southwest (Khulna Region, etc.)	・Highly vulnerable to climate change (cyclones, storm surges, salt damage, etc.) ・Weak transportation infrastructure due to large ethnic minority population
Southeast (Chittagong Hills)	・The main industries are fishing and salt fields, which makes the infrastructure unstable. ・The benefits of development are difficult to reach.

Source: Survey Team

One specific indicator is regional differences in poverty rates. National poverty rate: as of 2022, the percentage of people living on less than USD 2.15 per day (2017 purchasing power parity) is reported to be 12.9% across Bangladesh[188]. Comparing this poverty rate between urban and rural areas, the urban poverty rate is 6.5%, while the rural poverty rate is 28.4%, with a significantly higher poverty rate in rural areas[189].

Additionally, the Gini coefficient, which indicates income inequality, has increased from 0.48 in 2016 to 0.50 in 2022, indicating growing income inequality. It is also reported that the concentration of wealth is even more severe than income inequality, with a small number of wealthy individuals accounting for most of the country's overall

[188] pip.worldbank.org
[189] newagebd.net （accessed on 19 March 2025）

wealth.[190]

In response to this situation, the Bangladesh government is taking the following initiatives. These include (1) alleviating concentration by developing special economic zones (EPZs) in rural areas, (2) strengthening infrastructure investment in rural areas, such as the development of electricity grids and road expansion, (3) improving access to social services by providing remote education and medical services using ICT, (4) improving incomes in rural areas by modernizing agriculture and promoting non-farm employment, and (5) strengthening the labor force through the development of local universities and vocational training institutions.

As Bangladesh prepares to graduate from Least Developed Country (LDC) in 2026, sustainable development in the future will require a shift from an urban-centered growth model to a balanced development that includes rural areas, along with the continuity of these measures.

10.6 Economics

Bangladesh's economy, while characterized as a developing country, has experienced rapid growth in recent years. Key economic indicators are as follows:

- Nominal gross domestic product (GDP): approximately USD 460 billion (as of 2023)
- Real GDP growth: around 6-7% (recovering in recent years despite the impact of the new coronavirus pandemic) [191]
- GDP per capita: approximately USD 2,700 (approaching middle-income country)

Table 10-6: Characteristics of Industries

	Ratio of GDP	Employment Rate/Scale	Characteristics
Primary Industry	12-13%	More than 40% of Labor Force[192]	Rice, jute, vegetables, fish
	Decreasing Trend	Majorities are in rural area	Low productivity
Secondary Industry	Approx. 35%	Approx. four million are employed	Clothing and sewing industry leather, pharmaceuticals, ceramics, etc., also growing
			More than 80% of exports related to garment and sewing industry
Tertiary Industry	Approx. 50%	Expanding in Urban Areas	Telecommunications, finance, IT-related industries
		Increase in Middle Class	

[190] thedailystar.net （accessed on 19 March 2025）
[191] World Economic Outlook 2023, https://www.imf.org/en/Publications/WEO/weo-database/2023/October (accessed on 19 March 2025)
[192] http://www.bbs.gov.bd/ (accessed on 19 March 2025)

The mainstay of Bangladesh's economy is garment exports, especially the Ready-Made Garments (RMG) industry, which accounts for more than 80% of total exports[193].These industries have gained international competitiveness on the back of inexpensive labor, but excessive reliance on RMG industries requires policies that consider risks such as the impact on the country's overall economic growth when demand declines. From this perspective, the Bangladesh government has made policies to diversify exports a priority area in its Seventh Five-Year Plan and Eighth Five-Year Plan. It is also trying to diversify its export industry by attracting foreign investment through the development of economic zones and creating linkages with domestic industry. As part of this effort, a special economic zone in Bangladesh is being developed to attract direct investment from Japan by yen loans.

10.7 Climate Change

The measures that relate to health under National Adaptation Plan (NAP)s developed in 2022 is “CRC11 Construction of Climate-Sensitive Health Care Facilities in Urban Areas”, which is part of the strategy for urban areas. The specific activities are as follows[194]. The lead implementing agency is the Health Engineering Department (HED).

- Development of an operational framework for the construction of climate-friendly health care facilities that ensures consideration for women, people with different gender-related identities, children, the senior citizens, and the disabled, in line with the World Health Organization (WHO) guidelines;
- Building climate-conscious healthcare facilities;
- Conduct scenario-based stress tests for health care systems;
- Developing a one-health approach to diseases and infectious diseases that occur and recur in climate disasters;
- Formulation and implementation of climate-sensitive approaches, including WASH, to combat cholera and other neglected diseases (e.g., Ferreria, visceral leishmaniasis);
- Formulation of special measures for prenatal and postnatal crisis services;
- Intensive coping initiatives at community clinics by local health care providers for women, children, disabled, and pregnant women during climate disasters; and
- Expansion of green hospitals and clinics using renewable energy for power supply and private sector.

Comparing the NAP with the 5th Health, Population and Nutrition Sector Programme (HPNSP), the Physical Facility Development Operation Plans (PFD Ops) on facility construction (OPs 4.2 and 4.24) mention the environment and climate change as cross-cutting issues, but their content is limited to compliance with environmental standards. There is no specific reference to addressing climate in the Construction and Rebuild and Upgrade and Expansion components.

[193] https://www.bgmea.com.bd/ (accessed on 19 March 2025)
[194] National Adaptation Plan of Bangladesh (2023-2050) p.165

Similarly, the One Health Approach, cholera and other neglected disease control, prenatal and postnatal crisis services and intensive coping initiatives in community clinic (CC) are also relevant to the OPs on Upazila Health Care (OP 4.8), Primary Health Care (OP 11), NCDs Control (OP 15), Community-based Health Care (OP 4.19), and Lifestyle and Health Education and Promotion (OP 20). In each of these OPs, as in the OP on facility construction, climate change is mentioned as a cross-cutting issue to be considered, but there is no specific mentioning of it in the components and activities. Therefore, it is unclear how climate change measures will be addressed in each OP.

On the other hand, the OP on communicable disease control covers malaria, aedes transmitted diseases, lymphatic filariasis (LF), soil-transmitted helminths (STH), Little Doctors, visceral leishmaniasis, zoonoses, and food and water-borne disease control. The OP on communicable disease control mentions the relevance of maternal, newborn, and child health, primary health care, community-based health care, and health information systems to each OP, but no reference to communicable disease control is found in each activity under the Upazila Health Complex (UzHC) OP, which serves as the entry point for patient acceptance, for example. Therefore, the impression is that references to climate change adaptation measures in each OP are limited only in the text.

Separately from the NAP, the Government of Bangladesh developed the National Health Adaptation Plan (NHAP) in 2018 with the support of WHO. However, the plan prepared in 2018 has not been approved and the Ministry of Health and Family Welfare (MoHFW) is revising it in 2024; the content of the 2018 NHAP is not consistent with the content of the NAP, which was prepared and established later. The NHAP's Operational Framework also does not correspond to the HPNSP's communicable disease OP, even though it was elaborated by MoHFW HSD/ Medical Education and Family Welfare Division (MEFWD), too. Not only that, there is no mention of the HPNSP in the text of the NHAP, even though its initial draft was developed in 2018, during the implementation of the 4th HPNSP. As noted above, there are no elements from the treatment in the 5th HPNSP that would suggest the two plans were developed with consideration of their interrelatedness.

Based on the above, it is judged that the 5th HPNSP does not address climate change adaptation earnestly. The only relevant aspect of the NAP is compliance with environmental standards in urban facilities, but to this extent, it cannot be said that climate change adaptation measures are sufficiently considered. Therefore, when JICA is to support construction of facilities, it is considered necessary to reflect climate change adaptation measures in the scope at the stage of considering support, in addition to ensuring that the facility design specifications meet environmental standards based on the NAP and OP. It is also generally recognized that climate change as an impact on human health will lead to worsening of NCDs symptoms. Therefore, when strengthening the capacity of the medical workers engaging in dealing with NCDs, it is considered necessary to include in the teaching materials the indirect impacts such as the worsening of NCDs symptoms in addition to the direct impacts of climate change.

Chapter 11 Future Cooperation Policies and Assistance Approaches

11.1 Official Development Assistance (ODA) Loan Project

11.1.1 Project Loans Including Results-based Loan

The Survey Team examined the disbursement indicators for the results-based loan with reference to the World Bank's disbursement-linked indicators and the Asian Development Bank's (ADB) proposed results-linked indicators. Taking into consideration the fact that Japan International Cooperation Agency (JICA) has been cooperating in the areas of NCDs control and nursing service and education, appropriate indicators were selected for these two areas. The details are explained in "9.3 Proposal for Candidate Project and Aid Approach for Introducing Results-based Loan, OP Input-based, and DPP" (see Appendix 2 for the proposal). In addition, technical assistance under finance and investment account (Health, Population, and Nutrition Sector Program) was proposed to facilitate the implementation of results-linked loans (see Appendix 7).

In the final stage of the survey, the Bangladeshi side indicated that the implementation of the 5th Health, Population and Nutrition Sector Program (HPNSP) would be suspended, and possible future directions include the following:

- Provision of results-linked loan: a results-linked loan will be provided independently in the form of yen loans, with the disbursement indicators proposed in this survey.
- Development policy loans: In the areas of NCDs control, nursing services, and education covered by the results-linked loans, a development policy loans will be established by adopting the results indicators by converting them into policy objectives. A policy matrix will then be developed.

A results-based loan that was initially considered by assuming co-financing with an ADB loan, which would be provided in parallel with the World Bank loan. Both the World Bank and ADB loans supporting the 5th HPNSP were prepared based on the assumption that the 5th HPNSP would succeed the framework of performance indicator evaluation implemented in the 4th HPNSP. Therefore, it was assumed, when providing results-based yen loans, that both the World Bank and ADB loans would utilize the same framework for performance indicator verification previously utilized by the World Bank loan. However, if the 5th HPNSP is not implemented, the execution of the World Bank's program-for-results loan is uncertain, consequently, ADB loan is highly unlikely to be granted. Under these circumstances, it is estimated that the monitoring and evaluation system established under the 4th HPNSP is unlikely to be maintained. Therefore, if results-based loan is to be provided on a stand-alone basis, it is necessary for Bangladesh to ensure that a mechanism for verification of performance indicators must be in place to replace the monitoring and evaluation system envisioned in the 5th HPNSP. Even if the mechanism for verification of performance indicators is secured, JICA will need to provide support on its own, since the support mechanism for the 4th HPNSP was supported by the donor side, and the other donor support that supported the implementation of the 4th HPNSP is not expected.

If the World Bank loan is to be implemented in the manner and content originally intended, there is a possibility that the framework for the evaluation of outcome indicators of the 4th HPNSP will be maintained in its implementation. Since the proposed disbursement-linked indicators include some of the World Bank's disbursement-linked indicators through those to be selected by the ADB, when the JICA provides its results-based loan, it will be in the form of parallel loan to the World Bank loan. In such a case, it would be possible to use the performance indicator evaluation framework of the World Bank's loan.

When extending a development policy loan, it is necessary to formulate a new policy matrix and discuss it with the Bangladeshi side, while referring to the results indicators proposed in this survey. In this case, it is worth considering incorporating policy targets that contribute to policy improvement in the health sector more broadly, in addition to the targets of the disbursement-linked indicators proposed by assuming co-financing with the results-based loan of ADB. For example, items, such as optimization of the accreditation system for nursing and midwifery educational institutions mentioned in the chapter on nursing services and education, establishment of a promotion and salary increase system for career paths, review of staff capacity, increase in the number of medical personnel including fulfillment of sanctioned vacant positions, increase of MoHFW’s budget for maintenance in conjunction with asset management through a medical facility and equipment inventory management system, could be considered. Since the proposal in this Survey envisages the provision of technical assistance to achieve results indicators in relation to results-based loan, it is considered possible to examine a support mechanism that links technical assistance to the development policy loan in order to achieve the objectives outlined in the policy matrix. Therefore, when discussing the policy matrix with the Bangladeshi side, it is proposed that technical cooperation projects related to the areas of the results indicators be presented as well. For these reasons, it is necessary to consider an implementation schedule that matches the timing of the extension of a development policy loan and technical cooperation projects.

In either case of extending a results-based loan or a development policy loan, the amount of loan may be adjusted to increase the degree of materialization of results indicators or policy objectives, as the loan supports the Government of Bangladesh’s budget. The outline of the result-based loan is described in Annex 2.

11.1.2 Selection of Target Facilities and Medical Equipment

The target of the loan aid project includes large hospitals that are difficult to cover under the grant aid scheme, as well as hospitals listed in the DPP project list provided by MoHFW, and dormitories of nursing universities (Table 7-1 and Table 7-2). The investigation was conducted with the selection criteria shown below, to examine the suitability of the projects as loan aid projects. Regarding the rebuilding, since inpatients are currently sleeping on the floor, an increase in floor space is considered in conjunction with the rebuilding to ensure an appropriate inpatient environment.

(1) Reconstruction or expansion, NOT a new construction
(2) Construction site is available, no land ownership issue
(3) Have existing plans (drafts) such as Feasibility Study (FS) or Master Plan (MP)
(4) Safe and manageable construction site
(5) Appropriate budget scale for a loan aid project.

(1) Project Purpose and Necessities

The Bangladesh Shishu Hospital & Institute (BSHI), Sir Salimullah Medical College Hospital (SSMCH), and National Institute of Cardiovascular Diseases (NICVD) are all tertiary medical facilities located in the capital city of Dhaka. These facilities should serve as a lifeline for critical patients coming from all over the country. However, due to the vulnerability of their facilities, equipment, and medical devices, they are not functioning adequately.

BSHI attracts pediatric patients requiring advanced medical care from across the nation. As a semi-autonomous hospital, BSHI has received limited government support, resulting in insufficient facilities, equipment, and medical devices to fully function as a tertiary medical facility.

SSMCH is one of the two tertiary general hospitals in the capital, sharing the role of providing comprehensive medical services with Dhaka Medical College Hospital. In Dhaka, there are many trauma and emergency cases due to traffic accidents, making the establishment of a rapid examination and diagnosis system urgent. SSMCH has poor workflow and is aging due to repeated expansions, hindering the provision of prompt and appropriate emergency medical services.

NICVD is a tertiary specialized hospital providing medical care for people suffering from cardiovascular diseases, one of the leading causes of death in Bangladesh. Although efforts have been made to update medical equipment such as catheter labs, the overall facilities and equipment are aging, and the workflow and zoning are not well-considered. Despite being a specialized cardiovascular hospital, it operates under conditions with a high risk of hospital-acquired infections.

Therefore, by renovating the facilities and equipment of these three hospitals and upgrading medical devices, the aim is to enhance the core hospital functions in Bangladesh by enabling advanced and appropriate diagnosis and treatment for a wide range of age cohorts, supported by country's loan aid project scheme.

(2) Outline of the Project

The needs of tertiary hospitals in Dhaka that meet the selection criteria are high, and the following three hospitals will be considered as one unit and targeted for loan aid projects (hereinafter referred to as 'Proposal-1').

- Bangladesh Shishu Hospital and Institute
- Sir Salimullah Medical College Hospital
- National Institute of Cardiovascular Diseases

Additionally, the need for reconstruction or expansion of dormitories at nursing colleges in rural areas is high, and the six facilities will be considered as one unit and targeted for loan aid projects (hereinafter referred to as

'Proposal-2').

Proposal-1（Three Tertiary Hospitals in Dhaka）

Name of the Hospital	Purpose	Floors/Structure	Total Floor Area	Plan	Construction Site
BSHI	Departments, Wards	12-story building with two basement levels, pile foundation, RC structure	32,750 m^2	○	○
SSMCH	Departments, Wards	18-story building with two basement levels, pile foundation, RC structure	41,100 m^2	○	○
NICVD	Departments, Research labs, Training rooms, Lecture rooms	12-story building with two basement levels, pile foundation, RC structure	38,500 m^2	○	○

Proposal-2（Hostels of Six Nursing College in the Rural Area of Bangladesh）

Name of the College	Purpose	Floors/Structure	Total Floor Area	Plan	Construction Site
Nursing College in Chattogram District	Female dorm., Capacity: 304	Nine-story bldg., pile foundation, RC structure	5,857 m2	○	○
Nursing College in Cumilla District	Female dorm., Lecture bldg., Capacity: 226	Dorm: Nine-story bldg., Lecture bldg. : Five-story bldg., pile foundation, RC structure	6,745 m2	○	○
Nursing College in Rajshahi District	Female dorm., Lecture bldg., Capacity: 312	Dorm: Nine-story bldg., Lecture bldg. : Six-story bldg., pile foundation, RC structure	9,880 m2	○	○
Nursing College in Barisal District	Female dorm., Faculty office, Staff residence, Capacity: 406	Dorm: Seven-story bldg., Faculty Office : Five-story bldg., Dorm for staffs : Five-story bldg., pile foundation, RC structure	9,580 m2	○	○
Nursing College in Rangpur District	Female dorm., Male dorm, Capacity: 406(F), 44(M)	Female : Seven-story bldg., Male : Five-story bldg., pile foundation, RC structure	9,374 m2	○	○
Nursing College in Mymensingh District	Female dorm., capacity: 272	Female : Nine-story bldg., pile foundation, RC structure	6,027 m2	○	○

Proposal-3（Large-scale Hospital in Dhaka and District Hospital in Norsingdi）

Name of Hospital	Purpose	Floors/Structure	Total Area	Plan	Construction Site
NICVD	Departments, Research labs, Training rooms, Lecture rooms	12-story building with two basement levels, pile foundation, RC structure	38,500 m2	○	○
NSH	Departments, Wards	4-story building, pile foundation, RC structure	3,100 m2	△	○

(3) Project Implementation

The Directorate General of Health Services (DGHS) or the Health Engineering Department (HED) of the Ministry of Health and Family Welfare (MoHFW) will be the responsible agencies, and a Project Implementation Unit (PIU) will be established. The PIU will coordinate with each hospital and convene relevant agencies to hold regular meetings to ensure smooth project progress, and decide important matters related to project implementation, such as policies, budget measures, personnel allocation, and problem-solving. The specific roles of the PIU are as shown in Table 11-1 below, and consultants will provide operational support as needed.

Table 11-1: Roles of the PIU

- Selection of consultants
- Procurement of equipment suppliers and construction contractors (review of bidding documents, bidding, and contracting procedures)
- Overall project implementation management
- Coordination and communication with other ministries and JICA regarding the project (including the preparation of Project Status Reports)
- Tax exemption procedures

Source: Survey Team

(4) Estimated Cooperation Amount and Proposed Schedule

The estimated cooperation amount was calculated under the following conditions:

- The application of the Special Terms for Economic Partnership (STEP) was not considered.
- Inflation rates were not considered.
- The costs for the removal and demolition of existing facilities associated with construction will be borne by the counterpart and are not included in this estimate.
- The basis for calculating the estimated amount was the area of the plan (draft) prepared by the counterpart, but the area can be reduced through detailed examination of the floor plan.
- The exchange rate was set at BDT 1 = JPY 1.24401."

1) Calculation for Estimated Cooperation Amount of Proposal-1

Table 11-2: Construction Cost of "Proposal-1"（Unit: JPY1,000）

Name of the Hospital	Construction	Equipment	Total
BSHI	7,532,500	1,200,000	8,732,500
SSMCH	9,453,000	1,100,000	10,553,000
NICVD	8,855,000	2,000,000	10,855,000
Total	25,840,500	4,300,000	30,140,500

Source：the Survey Team

Table 11-3: Breakdown of the Project Costs（Unit: JPY 1,000）

Budget Item	Amount	
Consultation fee	900,000	3.4% of the construction cost
Construction cost	25,840,500	
Equipment	4,300,000	
Contingency	1,337,000	Construction cost ＋ 5% of the consultation fee
Price escalation	****	
Total	32,377,500	

Source: Survey Team

The estimated price for the large-scale medical equipment was calculated. However, the maintenance and inspection cost were not included.

- BSHI

Table 11-4: Proposed Medical Equipment（Shown Large-scale Equipment Only）
（Unit: JPY 1,000）

No	Medical Equipment	Qty.	Price（est.）
1	Angiography	1	300,000
2	MRI	1	300,000
3	CT	1	200,000
3	Digital X-rays	2	100,000
4	Surgical C-arms	2	100,000

Source: Survey Team

- SSMCH

Table 11-5: Proposed Medical Equipment（Shown Large-scale Equipment Only）
（Unit: JPY 1,000）

No	Medical Equipment	Qty.	Price（est.）
1	Angiography	1	400,000
2	MRI	1	300,000
3	CT	1	200,000

Source: Survey Team

- NICVD

Table 11-6: Proposed Medical Equipment（Shown Large-scale Equipment Only）

（Unit: JPY 1,000）

No	Medical Equipment	Qty.	Price（est.）
1	Angiography	3	1,200,000
2	MRI	1	300,000
3	CT	1	200,000

Source: Survey Team

2) Proposed Schedule

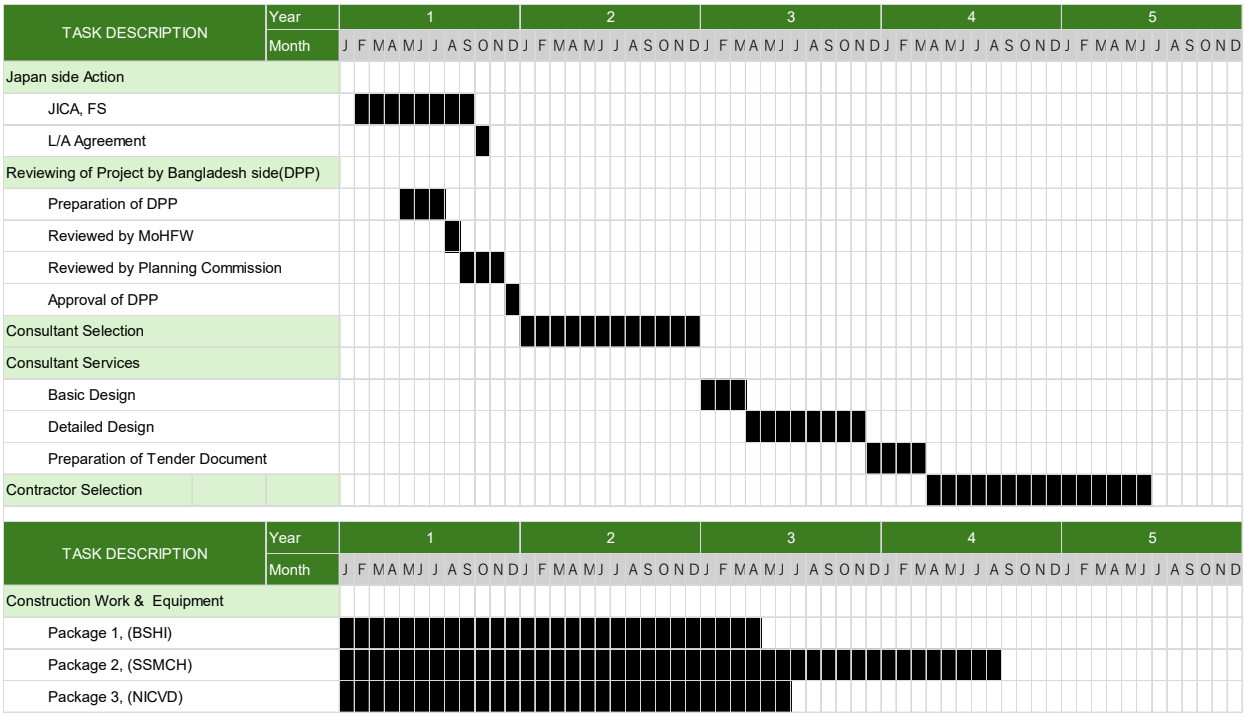
Considering the financial and contracting capabilities of local contractors, the construction work and equipment procurement for each hospital will be divided into packages. Therefore, the facility construction will be divided into three parts, and the equipment procurement will be consolidated into one, making a total of four packages.

Table 11-7: Procedures and Durations after L/A

Procedures		Necessary Periods
Approval of the project by Bangladesh	Documentation for the project approval	3 months
	Project evaluation	8 months
Selection of consultancy agency	Proposal development, Tender, Contract	12 months
Consulting service	BD・DD, Tender support	15 months
Selection of construction company	PQ, Tender, Evaluation	15 months
Construction/procurement of medical equipment	Package 1 (BSHI) Package 2 (SSMCH) Package 3 (NICVD)	28 months 44 months 30 months

Source: Survey Team

Table 11-8: Proposed Schedule for Proposal-1



Source: Survey Team

3) Calculation for Estimated Cooperation Amount of Proposal-2

Table 11-9: Construction Cost of Proposal-1（Unit: JPY 1,000）

Name of the College	Construction	Medical Equipment	Total
Nursing College in Chattogram District	1,128,139,000	43,720,000	1,171,859,000
Nursing College in Cumilla District	1,205,017,000	144,054,000	1,349,071,000
Nursing College in Rajshahi District	1,815,284,000	160,720,000	1,976,004,000
Nursing College in Barisal District	1,870,411,000	45,667,000	1,916,078,000
Nursing College in Rangpur District	1,815,834,000	59,054,000	1,874,888,000
Nursing College in Mymensingh District	1,162,868,000	42,560,000	1,205,428,000
Total	**8,997,553,000**	**495,775,000**	**9,493,328,000**

Source: Survey Team

Table 11-10: Breakdown of the Project Costs（Unit: JPY 1,000）

Expense Item	Amount	
Consultation fee	400,000	4.5% of the construction cost
Construction cost	8,997,553	
Medical equipment	495,775	
Contingency	449,000	Construction cost ＋5% of the consultation fee
Price escalation	****	
Total	10,342,328	

Source: Survey Team

4) Proposed Schedule

For the construction work of the project for Proposal-2, the construction sites are dispersed in rural areas. In addition to considering the financial and contracting capabilities of local contractors, to ensure efficient implementation of the construction, the sites will be divided into three packages: two sites in the northern region, two sites in the northeastern region, and two sites in the southern region. The procurement of contractors will follow the same procedure as Proposal-1, but the construction periods will differ for each site.

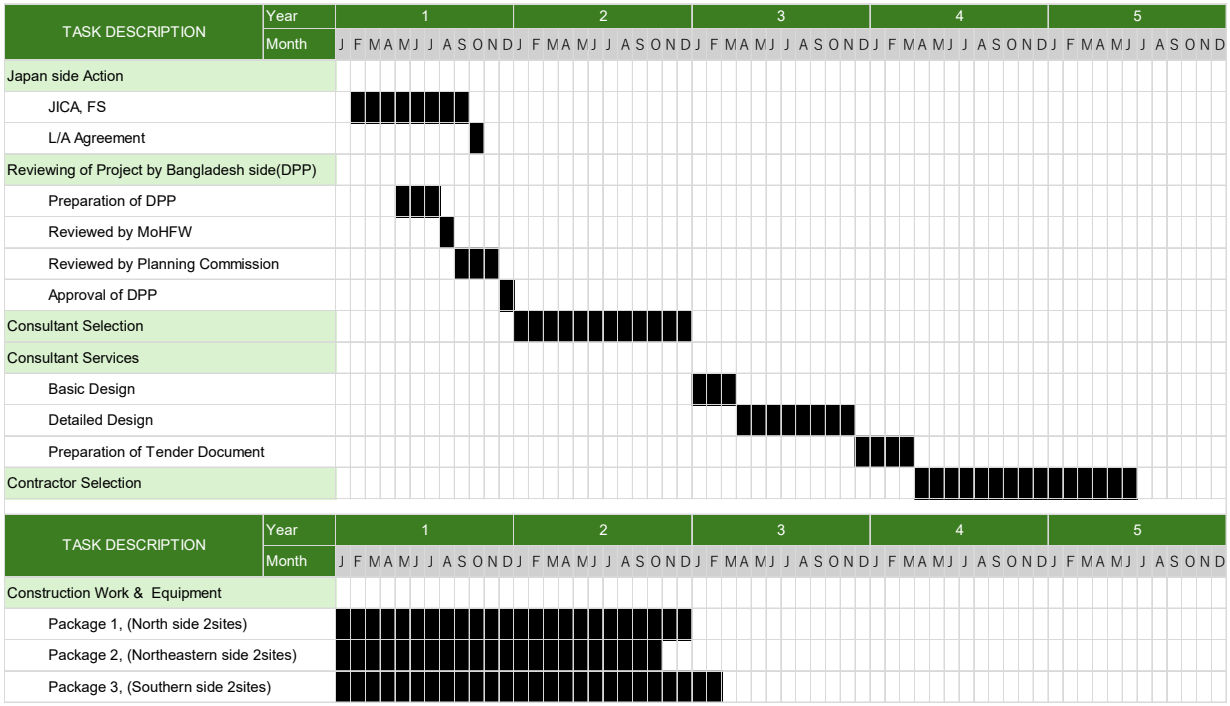
- Two sites in the northern region: Nursing College in Rajshahi District, Nursing College in Rangpur District
- Two sites in the northeastern region: Nursing College in Mymensingh District, Nursing College in Cumilla District
- Two sites in the southern region: Nursing College in Chattogram District, Nursing College in Barisal District

Table 11-11: Procedures and Duration after L/A

Procedures		Necessary Period
Approval of the project by Bangladesh	Documentation for the project approval	3 months
	Project evaluation	8 months
Selection of consultancy agency	Proposal development, Tender, Contract	12 months
Consulting service	BD・DD, Tender support	15 months
Selection of construction company	PQ, Tender, Evaluation	15 months
Construction/procurement of medical equipment	Package 1 (northern two sites) Package 2(northeastern two sites) Package 3 (southern two sites)	24 months 22 months 26 months

Source: Survey Team

Table 11-12: Implementation Schedule for Proposal-2



Source: Survey Team

5) Calculation for Estimated Cooperation Amount of Proposal-3

Table 11-13: Construction Cost of Proposal-3（Unit: JPY 1,000）

Name of the Hospital	Construction	Equipment	Total
NICVD	8, 855, 000	2, 000, 000	10, 855, 000
NSH	1, 054, 000	500, 000	1, 554, 000
合計	**9, 909, 000**	**2, 500, 000**	**12, 409, 000**

Source: Survey Team

Table 11-14: Breakdown of the Project Costs（Unit: JPY 1,000）

Expense Item	Amount（JPY1,000）	
Consultation fee	550,000	4.5% of construction fee
Construction cost	9,909,000	
Medical equipment	2,500,000	
Contingency	523,000	Construction fee＋5% of consultation fee
Price escalation	****	
Total	13,482,000	

Source: Survey Team

Development details for Narsingdi Sadar District Hospital:

- **Development Content:** Expansion and reconstruction of the medical departments and wards (70 to 100 beds)
- **Floors and Structure:** Four-story building, reinforced concrete construction
- **Total Area:** 3,100 m² (first and second floors: 865 m², third and fourth floors: 640 m², PH floor: 90 m²)

- **Medical Equipment:** This medical facility is the central healthcare facility in the Narsingdi Region, and it also receives trauma patients from traffic accidents and emergency transport. Therefore, the installation of computed tomography (CT) imaging equipment is essential. For the maintenance and management of large equipment such as CT, it is necessary to install them in rooms with radiation protection and to manage appropriate temperature and humidity through air conditioning. However, since it is not recommended to have equipment maintenance personnel (currently not assigned) stationed at the medical facility to perform repairs in case of failure, it is crucial to ensure budget allocation for maintenance costs after the free service period provided by grant aid. Additionally, for accurate diagnosis, it is considered important to enhance the capabilities of CT imaging and reading techniques through training provided by the manufacturer, as well as further capacity building within the scope of follow-up cooperation.

Table 11-15: Proposed Medical Equipment（Shown Large-scale Equipment Only）

（Unit: JPY 1,000）

No	Name of Equipment	Qty.	Price（est.）
1	CT	1	200,000
2	Digital X-rays	2	100,000
3	Surgical C-arms	1	50,000
4	Other general equipment	1	150,000

Source: Survey Team

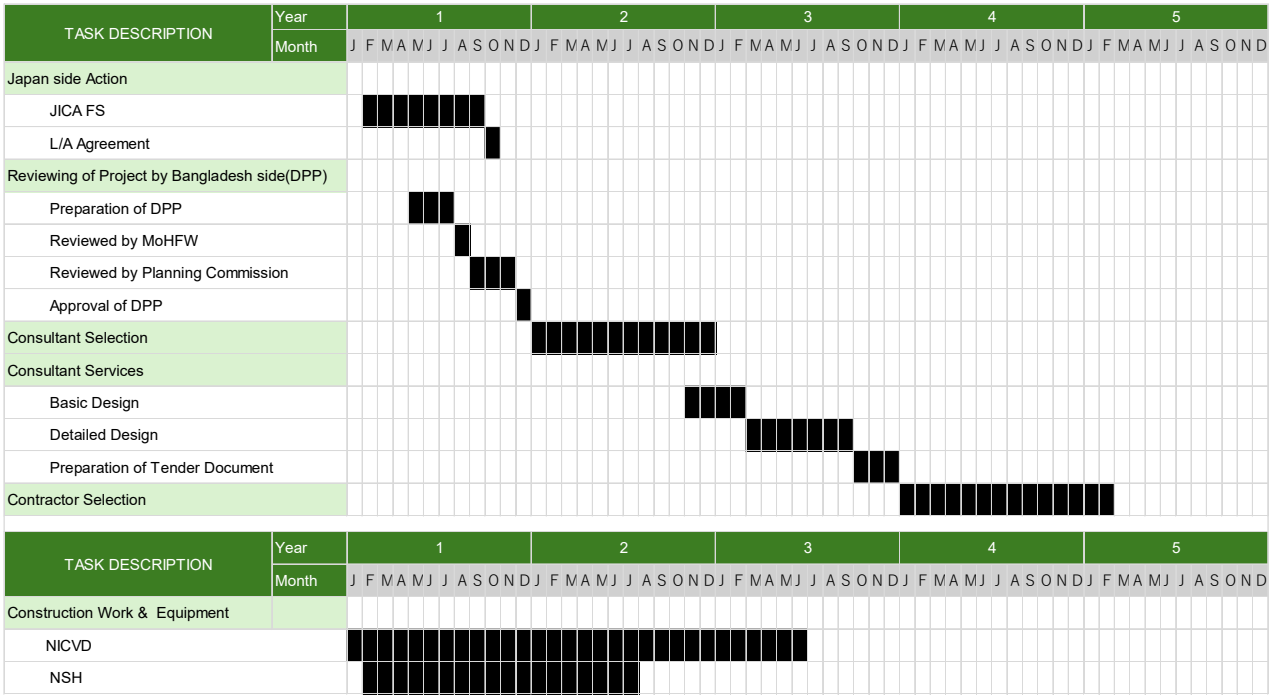
6) Proposed Schedule

Table 11-16: Procedures and Duration after L/A

Procedures		Necessary Period
Approval of the project by Bangladesh	Documentation for the project approval	3 months
	Project evaluation	8 months
Selection of consultancy agency	Proposal development, Tender, Contract	12 months
Consulting service	BD・DD, Tender support	15 months
Selection of construction company	PQ, Tender, Evaluation	13 months
Construction/Procurement of medical equipment	NICVD NSH	30 months 18 months

Source: Survey Team

Table 11-17: Implementation Schedule for Proposal-3



Source: Survey Team

11.1.3 Medical Waste Treatment Facility

In the provision of equipment, the installation of medical waste treatment facilities was initially considered as grant aid project because the issue of medical waste treatment in Bangladesh had been pointed out in previous surveys, it was included in the OP for UzHC, and it was adopted as a performance indicator for the results-based loan being considered by ADB.

As a result of the field survey, it was mentioned that all medical facilities surveyed and interviewed had contracted specialized companies, which regularly come by car to collect and properly dispose of waste. Even large facilities like Bangladesh Shishu Hospital did not feel burdened by the cost of medical waste disposal, which is about BDT 6,000 per month. For general waste, simple incinerators were observed on the premises of some hospitals. It was also found that the non-governmental organization (NGO) collects and centrally processes medical waste from both public and private medical institutions. The NGO handles medical waste for 16% of all medical institutions and is the only one in the country that meets Bangladesh's domestic environmental standards for segregation and incineration. According to the NGO, other medical institutions have their medical waste collected by waste disposal companies contracted by the city authorities, but these companies dispose of the waste at the city's waste disposal sites without separating it from general waste. Other NGOs that handle medical waste also dispose of it without separating it from general waste, and some private medical university hospitals bury their waste on their premises, and the abovementioned situations indicate a need for support in waste disposal management. However, according to the NGO, considering the volume of medical waste generated, it is not economical to install medical waste treatment facilities in individual hospitals. Additionally, constructing numerous treatment facilities would increase the environmental impact, making centralized treatment through collection preferable. The NGO

currently conducting centralized treatment charges medical institutions based on the number of beds for hospitals and according to their classification criteria for non-hospital institutions, but it is not profitable and relies on the revenue from its main business, microfinance, to cover operational deficits.

Currently, the Bangladesh government has not established policies or a solid system for medical waste treatment. As a result, there is a choice between relying on NGO treatment or treating it like general waste. When considering support by JICA for medical waste treatment, centralized treatment through collection is preferable. The method for medical waste treatment requires the construction of centralized treatment facilities, the establishment of a collection mechanism, and commercialization. Furthermore, financial support is needed to ensure profitability. This would require a survey to formulate a business plan, likely exceeding the scope of the initially envisioned grant aid. It may also not fit into any of the support schemes considered in this survey. Considering the reasons mentioned above, the Survey Team will not propose a project in medical waste management though the need is high. Furthermore, it is recommended to use materials, building materials, and equipment with low environmental impact during facility construction, and proper disposal of medical waste is essential from the perspective of planetary health (mitigation measures), which is also a current trend in the healthcare field, and considering that the 5th HPNSP mentions the construction of facilities that do not burden climate change. Therefore, the support to medical waste management should also be considered in the proposed projects for expansion and reconstruction of hospitals by the survey, whether the medical waste of the targeted medical facilities can be included in the collection mechanism implemented by existing NGOs.

Considering future support for medical waste disposal, the possible implementation schemes are as follows: (1) Installing disposal facilities at each medical facility, (2) Utilizing existing waste collection mechanisms, (3) Launching new collection projects, including public-private partnership (PPP), and/or (4) Outsourcing to NGOs currently engaged in medical waste disposal. It is proposed to determine which implementation scheme is most suitable and feasible by conducting the following investigations:

- Confirmation of the policies and guidelines from MoHFW regarding medical waste management
- Measurement of the types and quantities of medical waste at each medical facility in the specified region
- Assessment of the current state of medical waste disposal within the target medical facilities
- Verification of the existing disposal mechanisms, including the status of final disposal sites and waste collection contractors
- Coordination and alignment with relevant laws and policies of the Ministry of Environment, Forest and Climate Change, and local governments
- Business scheme and financial analysis of the medical waste collection project

As mentioned in the analysis of “4.5.4 DLI”, the action plan for the World Bank's Health, Nutrition and Population Sector Development Program-for-Results loan includes an item for MoHFW to establish on-site medical waste disposal facilities at district, county hospitals, and UH&FWC. The details of this item are unclear, so it is necessary to investigate its content and consult with MoHFW and the World Bank to ensure consistent policy among donors.

11.2 Grant Aid Projects

11.2.1 Selection of Target Facilities and Medical Equipment

Regarding the grant aid project, considering the scale of the facility and the project cost, the Survey Team proposes the equipment provision for the National Gastroliver Institute and Hospital (NGIH) in Dhaka. NGIH is the only advanced medical facility in the country specializing in the treatment of gastrointestinal diseases. While JICA has continued to support the health sector with a focus on NCDs, its assistance has primarily emphasized prevention and health management. However, it is inevitable that a certain number of NCD patients will develop severe conditions. Therefore, it is important for JICA to provide comprehensive support for NCDs, from prevention to treatment, in order to accelerate improvements in health indicators of NCDs. NGIH treats patients with severe gastrointestinal diseases such as ulcers, enteritis, cirrhosis, pancreatitis, and cancer. In particular, for diabetic nephropathy, a complication of advanced diabetes, dialysis is required. However, due to a shortage of dialysis machines, NGIH is unable to adequately provide dialysis services. NGIH has submitted a DPP to MoHFW for equipment provision, including facility expansion, reconstruction, and renovation of the Surgical Department. However, vertical expansion and partial renovation do not align with JICA's aid scheme, thus, the equipment provision is proposed as a grant aid project.

（1） Outline of the Project

National Gastroliver Institute and Hospital (NGIH):

- Requested Medical Equipment List

No	Name of Equipment	Qty.	No	Name of Equipment	Qty.
1	Therapeutic Endoscope	1	7	Manometry Machine Full Set	1
2	Endoscope Re-processor	1	8	Blood Bank Refrigerator	1
3	Diathermy with APC	1	9	Apheresis Machine	1
4	Diathermy	1	10	Platelet Agitator with Incubator	1
5	Medical Gas Pressure Monitor	1	11	Blood Collection Monitor	1
6	ECG Machine	6	12	Plasma Thawing Bath	1

Source: Survey Team based on the list provided by NGIH

（2） Calculation for Estimated Cooperation Amount

Table 11-18: Breakdown of Cost（Unit: JPY）

Name of Hospital	Construction	Medical Equipment	Total
① National Gastroliver Institute and Hospital	—	800,000	800,000

Source: Survey Team

Table 11-19: Breakdown of the Project Costs（Unit: JPY 1,000）

Expense Item	Amount	

Consultant fee	48,000	6% of the procurement cost
Medical equipment	800,000	
Price escalation	****	
Total	848,700	

Source: Survey Team

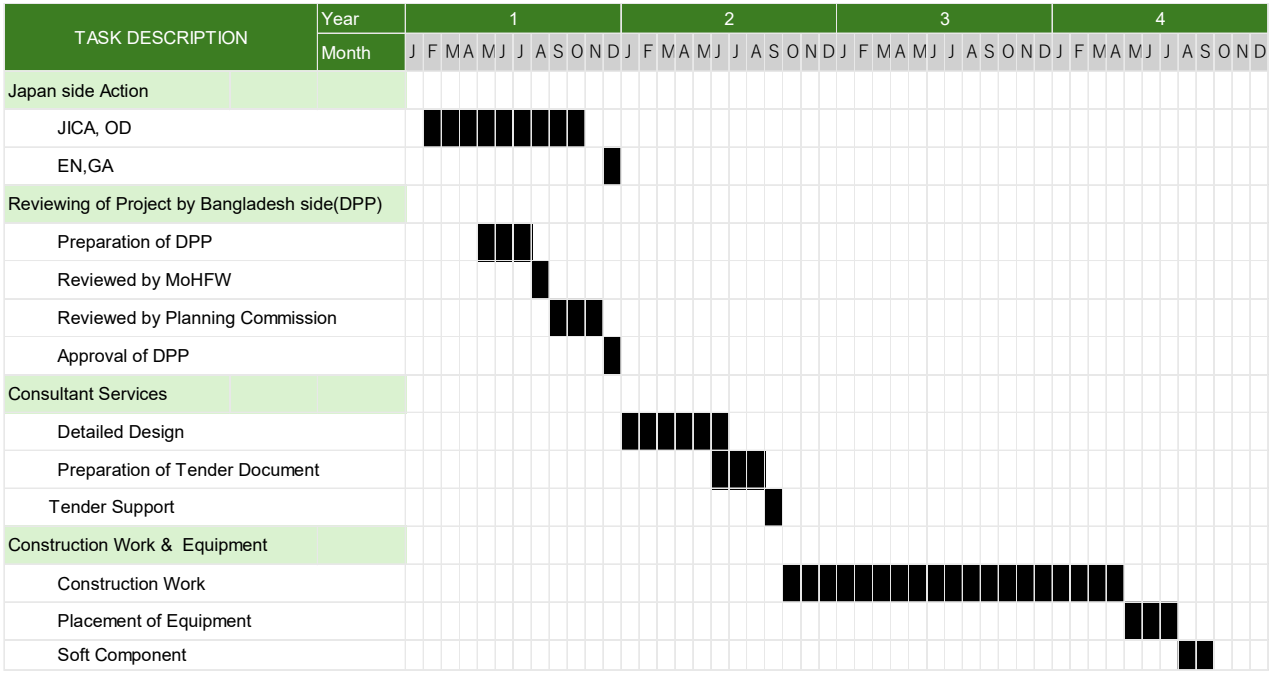
（3） Proposed Schedule

Table 11-20: Implementation Procedure and Duration

Procedure		Duration
Preparatory survey		8 months
Approval by Bangladesh	DPP evaluation・Approval	5 months
DD・Tender documentation	DD・Tender documentation	6 months
Selection of construction company	PQ, Tendering, Evaluation	2 months
Construction/procurement of medical equipment	Separate tendering on construction and medical equipment	10 months
Soft component	Training for maintenance and utilization of medical equipment	2 months

Source: Survey Team

Table 11-21: Implementation Schedule



Source: Survey Team

11.3 Technical Cooperation Projects

As a technical cooperation project, the Survey Team proposes support for NCD measures, improvements in nursing education and services, and initiatives addressing aging, along with the dispatch of policy advisor who can oversee the interrelated fields of health and social welfare.

The list of proposals is shown in Table 11-22.

Table 11-22: List of Proposals by Survey Team

Yen Loan	Technical assistance under finance and investment account "Health, Population and Nutrition Sector Programme"	Appendix 2
Technical Cooperation	Strengthening the Referral System in NCD Service Provision	Appendix 3
	Proposal 1: Strengthening Continuous Professional Development for Nurses Proposal 2: Development of Specialized Clinical Nurses Proposal 3: Strengthening Subject-based Nursing in Nursing Education	Appendix 4
	Support for Aging Society Initiatives	Appendix 5
	Policy Advisor	Appendix 6
	Technical Assistance under Finance and Investment Account: Health, Population and Nutrition Sector Program	Appendix 7
	The Project for Strengthening of Hospital Management	Appendix 8
	In-Hospital Digitalization Implementation Subproject (tentative name) - Equivalent to Output 2 of the Hospital Operational Management Capacity Strengthening Project	Appendix 9

Source: Survey Team

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Appendix 1

List of Candidate project regarding Large-scaled Infrastractures

Name of Project (Period of Implementation)	Construction plan	Scale	Relates with JICA's support	Japan's Contributuion: Presence	Area/Location
Bangladesh Shishu Hospital and Institute Expansion-phase-2 (2023-2025)	Scale; 2 floors underground. 12floor above. Total floo are 9,800m2 Large-scaled medical	681 to 1300or1500 beds plan.Specific zoning or layout haven't been developed.	Technical assistance such us hospital management, maintenace capacity building , should be	・40m roads in front of the hospital.Facing to Sayed Mahbub Morshed Rd. 12 stories building supported by japan stands out. ・Only one pediatric top referral hospital in Bangladesh. Support for volnerable	Sher-E-Bangla Nagar, Dhaka-1207
Expansion of Sir Salimullah Medical College Hospital (2024-2027)	2 stories underground, 18 stories on the ground.	900 to 1500 beds	None	SSMCH is the second scale hospital in Dhaka. The building's presence is high due to the current deteriorated condtion of	Mitford Rd, Dhaka
Liver transplant Unit under National Gastroliver Institute and Hospital (2024-2026)	MRI,CT, dialysis(10)、other equipment and surgical toos for liver transplant ※Space expansion, radiation protection will be	Vertical expansion plannning	-	medium	Mohakhali, Dhaka, Bangladesh
Dhaka Medical College Hospital Modernization (2024-2027)		1,000→5,000→4,000		The most well known hospital. current existing buildings are layed out in the property without well considered planning. The support for master plan development seems necessary.	Secretariat Rd, Dhaka 1000
NICVD, Sher-e-Bangla Nagar, Dhaka Academy building and middle block expansion	12 stories building	250→750 beds	NICVD is for NCD leading disease: cardiac diseases.	The site is behind of the main building and the presence would be lower than the sice (garden) in front of the building. It is possible to propose 14 stories instead of 12 stories for the presence of Japan's	Sher-e-Bangla Nagar, Dhaka-1207, Bangladesh
Stengthening of Norsindi District Hospital （Norsingdi Sadar Hospital)	100→200 beds		Technical cooperation for NCDs has been conducted.		Narsingdi 1600
Re-construction of Old Female Hostel (Condempt) at Nursing College in Chattogram	A dormitory for nursing students	A nine-story reinforced concrete building Total floor area: 5.855㎡	The Project for Capacity Building of Nursing Services,Phase1 and 2	Improving the nurse dormitories scattered across the country is expected to enhance the surrounding environment for learning and development of nurses—who are the target beneficiaries of JICA's support for nursing technical programs. This, in turn, may lead to an increase in the number of students aspiring to become nurses, thereby contributing to the alleviation of the shortage of healthcare personnel in the country. In this regard, JICA's support can be utilized more effectively.	Chattogram, City Corporation
Construction of Administrative & Academic Building at Nursing and Midwifery College in Cumilla District	A building for lecture, A domitory for nursing students	Lecture Building: A five-story reinforced concrete structure with a total floor area of 2,324 ㎡. Dormitory: A nine-story reinforced concrete structure.			Cumilla、Sadar
Re-construction of Old Administrative Building and Hostel at Rajshahi Nursing College in Rajshahi District	A building for lecture, A domitory for nursing students	Lecture Building: A six-story reinforced concrete structure with a total floor area of 3,600 ㎡. Dormitory: A nine-story reinforced concrete structure.			Rajshhi, Sadar
Re-construction of Female Hostel Bhaban-1 & Bhaban-2 at Barishal Nursing College in Barishal Distric	A dormitory for nursing students, residencil buildings for the faculty and staffs	Dormitory: A seven-story reinforced concrete structure with a total floor area of 7,927㎡. Faculty Housing: A five-story reinforced concrete structure with a total floor area of 1,012 ㎡. Staff Housing: A five-story structure with a total floor area of 636 ㎡.			Barishal, Sadar
Re-construction of Male and Female Hostel at Rangpur Nursing College in Rangpur District	domitories for nursing studens (male and female)	Female Dormitory: A seven-story reinforced concrete structure with a total floor area of 7,872 ㎡. Male Dormitory: A five-story reinforced concrete structure with a total floor area of 1,443 ㎡.			Rangpur, Sadar
Construction of Female Hostel and other remaining works of Nursing College in Mymensingh	A domitory for nursing students	Female Dormitory: A nine-story reinforced concrete structure with a total floor area of 6,024 ㎡.			Mymenshngh、Sadar

Appendix 2

Results based loan "Health, Population and Nutrition Sector Program

1. Project Objective

To support the achievement of the goals of the Health, Population and Nutrition Sector Program developed by the MoHFW, which is to improve health and well-being by embodying health, nutrition and population goals to achieve universal health care.

2. Project Overview

The Government of Bangladesh's 5th Health, Population and Nutrition Sector Program is a set of individual projects to be implemented by the MoHFW over a five-year period beginning July 2024. The program will be implemented by MoHFWs under the government's budget and procurement system, funded by the government budget and support funds from development donors.

Within the 5th HPNSP, this project will support activities in these areas by limiting its assistance to the two areas that JICA has traditionally targeted: noncommunicable diseases control and nurse training, and by using the results linked indicators. Specifically, the results linked indicators are chosen, in the area of noncommunicable disease control, (1) increase screening, patient registration, and medication use at the primary health care institution level; (2) strengthen referrals at the primary health care institution level and in the area of nursing, (3) improve the quality of education for nurses and (4) establish and implement continuing and specialized education systems for nurses in-service.

3. Implementation Scheme

The 5th HPNSP has an action plan for each policy area called the Operational Plan, and a Line Director is appointed for each Operational Plan. Under the supervision of the Line Director, the activities described in the Operational Plan are compiled and reported to JICA through the respective planning units of HSD and ME&FWD, to which Line Directors or medical institutions at each level that implement the relevant part of the activities in the relevant Operational Plan reports its activities under 5th HPNSP.

4. Proposed loan amount and schedule

Proposed loan amount : 5,000 million Japanese Yen

Temporary schedule: Starts in July 2025 and ends in June 2029

5. Remarks for implementation

This loan will support the implementation of the 5th HPNSP. However, as of February 2025, the 5th HPNSP has not been approved by the Executive Committee of the National Economic Council (ECNEC) thus has not yet become an official government program. In addition, the provision of the yen loan is contingent on co-financing with ADB's results-based loan, which also covers the 5th HPNSP. Therefore, it is necessary that ADB provides its results based loan.

Appendix 3

The Project for Strengthening NCDs Measures

1.**Background of the Project**

In Bangladesh, diseases related to NCDs account for about 70% of deaths, and NCDs control has been actively promoted since 4th HPNSP with the support of international organizations and donors from various countries. As a result, a standardized NCDs management model has been established, training has been provided to health care workers, and NCDs Corners have been set up in more than 30 DH and more than 400 UzHC as of February 2025. In the field survey, it was confirmed that NCDs corners are functioning to a certain extent, with basic medical equipment such as blood pressure monitors and glucometers, and trained doctors and nurses providing medical services based on standardized protocols.

However, during the field survey, it was confirmed that the number of patients visiting NCDs Corners of DH/UzHC is densely concentrated, and the number of patients visiting is increasing day by day. This over-concentration can make it difficult to see new patients and to continue the treatment of regular patients, so a more appropriate referral system is needed to disperse medical resources and provide efficient services. On the other hand, there is a government policy to utilize Community Clinics (CC) for NCDs including refilling of drugs, and training and other support is being provided, but CC have only non-medical specialists such as community health care providers (CHCP), making it difficult to provide medical treatment.

Here, a referral system (including counter-referral) between "DH/UzHC―USC―CC" could be established by utilizing Union Sub Centers (USC), which are located between Upazila hospitals (upper primary medical facilities) and CC (lower primary medical facilities) and staffed by SACMO and pharmacists. This referral system can avoid over-concentration of patients in the DH/UzHC. Therefore, a pilot project is proposed to restructure the system of referral and service delivery incorporating USC in Narsindi or other district, where SHASTO-2 project is being implemented, with the aim of improving the accuracy of screening, diagnostic treatment and follow-up.

2. Framework of the Project

To strengthen the referral system in NCDs measures, the following will be implemented.

<Activity 1: Inclusion of USC in the NCDs measures>

- Clarification of roles of DH/UzHC, USC and CC in NCDs measures
- Development and approval of a referral structure for NCDs measures, incl. USC
- Training for district and upazila health officers on the referral system
- Training on the referral system for doctors and nurses in UzHC

<Activity 2: Support for USC to NCDs measures>

- Provision of NCDs-related equipment and NCDs drugs to USC
- Training for SACMO and pharmacists on NCDs measures

<Activity 3: Support for CC to NCDs measures>

- Training for community healthcare providers (CHCP) on NCDs measures (promoting awareness, improving screening accuracy, understanding the referral system and enhancing follow-up)

3. Project Implementation Structure

Implementation by MoHFW/DGHS/NCDC

4. Estimated amount of cooperation and proposed schedule

Estimated amount: 350 million yen
Implementation schedule: 2026 onwards (as a subsequent project of SHASTO-2)

5. Considerations of implementation

- The Project will be implemented in the target districts of SHASTO-2 to establish model cases. It would be preferable to start with a pilot in Narsindi district, which has been supported for many years.
- It is the prerequisite that the NCDs corners of the DH/upazila hospital in the target district are functioning. If they are not functioning adequately, priority need to be given for supporting the NCDs corners in the DH/upazila hospitals.
- The feasibility of utilizing the USC needs to be reconfirmed by government intentions at the appropriate time.

Appendix 4

Technical cooperation for Nursing service and education

Proposal 1 ： Strengthening the quality of Nursing Education

1. Background

According to the CBNSII Baseline Survey, the results of the evaluation based on the accreditation criteria of 10 nursing colleges (eight CBNSII target colleges and two non-target colleges) showed that some of the colleges may not be providing sufficient quality education. In addition, it was identified that the majority of nursing faculty members are teaching without subject-based expertise, teachers are required to teach multiple subjects due to staff shortages, and that videos are used as alternative methods of lab practice, indicating that there are fundamental problems with the quality of education. Nursing faculty members of public nursing colleges also belong to the public sector, and with no prospect of a dramatic increase in the number of faculty members, it will be difficult to assign subject based faculty members for the time being. Therefore, the development of teaching materials and teacher manuals for particularly important subjects in nursing education would be beneficial to improve the current situation to assist teachers to teach multiple subjects.

It was observed that theories taught in nursing colleges are not sufficiently practiced in the field, and clinical supervision is insufficient. Therefore, nursing manual and standard operating procedures (SOP) will be developed, which will enable to link the course content to clinical practice, and will serve as a guidance for nurses in the field. By creating these manuals, new graduate nurses will be able to perform their duties based on what they have learned when they work in the field. The manual will also be used not only by new graduate nurses, but also by in-service nurses in their continuing education to improve their work.

2. Project Objective

The project aims to improve the quality of nurses and nursing services through the improvement of the quality of nursing education in coordination with DGNM, BNMC and public nursing colleges by developing subject-based teaching materials for teachers, education materials for students, and nursing manuals for clinical nurses. The development of teaching and education materials will contribute to the improvement of teaching methods of teachers and raise the quality of nursing education. The development of nursing manuals and SOPs will enable nurses to link what they have learned in nursing colleges into practice.

3. Project overview

- Development of instructional materials (modules for theory, lab, and clinical practice) for teachers for subject-based nursing education
- Training in the use of teaching materials for faculty members of target nursing colleges
- Implementation and monitoring of subject-based teaching using the teaching materials by faculty at target nursing colleges
- Develop subject based education materials for students
- Develop nursing manuals and SOPs that will be utilized as guidance for nurses when performing their duties in the field

4. Project implementation structure

The project will be implemented by collaboration with DGNM, BNMC and teachers from CBNSII target colleges. In the development process of the nursing manual and SOPs, stakeholders from the nursing colleges and hospitals supported by CBNSII will take part.

5. Estimated cost and schedule

- Estimated cost：Approximately JPY 300 million
- Project period and schedule：End of 2026 (2 years project)

6. Points to consider upon implementation

- It is necessary to confirm the assistance of other donors related to improving the quality of teachers in nursing institutes (diploma course) and collaborate and coordinate with them.
- It is necessary to confirm the progress of activities of Outcome 3 of CBNSII
- It is necessary to consider that the approval process within MoHFW may take time.

Proposal 2：Improvement Nursing Service through Continuing Professional Development for Nurses

1. Background

In Bangladesh, there is no existing framework for continuous professional development (CPD) for nurses and there is no established system for nurses to advance their professional development. Since it is difficult to find employment in the government health facilities, it is common for students to find employment in private nursing institutes after graduating from nursing colleges and nursing institutes, thus they may not always have the opportunity to gain clinical experience soon after graduation. Since the background of nurses working in the public sector varies in terms of years since graduation and clinical experience, the nursing care provided is based on their individual experiences because there are no SOPs. As a result, standardized nursing care is not being provided. In addition, nurses are not able to provide nursing services In addition, nurses are unable to provide adequate nursing services due to the chronic shortage of nurses. Since it is unlikely that the number of nurses will dramatically increase in a short period through the recruitment of new nurses, it is considered that the capacity development of in-service nurses and the improvement of the efficiency of the current services will contribute to the improvement of nursing services. Therefore, it is necessary to improve the existing system for continuing education to enable nurses to enhance their skills and capabilities through their experience, and ensure the provision of quality assured nursing care. Currently, regional nursing and midwifery training institutes attached to the nursing colleges are utilized for training purposes of current in-service nurses and nursing college faculty also participates as trainers in the training. In this context, we will utilize the teaching materials and nursing manuals developed as part of the project for Strengthening the quality of Nursing Education (Proposal 1) to simultaneously improve the quality of education considering the situation of shortage of teachers.

2. Project Objective

The project aims to improve the competencies of nurses and improve the quality of nursing services in Bangladesh through the strengthening the systematic continuing education system for nurses based on the CPD framework, and the establishment of a system to ensure the quality of nursing services,

3. Project Overview

Project purpose : A system for continuous professional development for in-service nurses is established.

Outcome 1：Continuous education for in-service nurses is improved

Outcome 2：The implementing system for continuing education will be improved.

Outcome 3：Service delivery based on SOPs will be established at the target hospital.

＜Activities of Outcome 1＞

- Develop the curriculum for continuous education programs in accordance with the CPD framework
- Review and revise the existing training programs of DGNM
- Develop training plans and tools for continuous education based on the curriculum of continuous education program

＜Activities of Outcome 2＞

- Review the implementation status of existing programs for continuous education, and identify areas for improvement
- Examine methods to improve existing programs for continuous education
- Planning, training, monitoring and evaluation of the implementation of the revised continuous education programs in target hospitals
- Strengthening the management of nursing managers in target hospitals

- Strengthening the monitoring capability of training management by DGNM
- Addition of CPD items in BNMC's registration system of nurses for license renewal

＜Activities of Outcome 3＞
- Monitoring of nursing services based on standard operating procedures
- Improvement of nursing services through the utilization of nursing manuals and standard operating procedures developed in the project for Strengthening the quality of Nursing Education (Proposal 1)

4. Project implementation structure

The project will be implemented by collaboration with DGNM, BNMC and HSD. The nursing manual and standard procedures will be utilized in medical facilities including facilities that are not targeted by CBNSII, in order to verify the general applicability of the content. Managerial staff from medical facilities that are not part of the CBNSII will also participate in the implementation.

5. Estimated cost and schedule

- Estimated cost：Approximately JPY 500 million
- Project period and schedule：

This project will initiate after the nursing manuals and SOPs are developed in the project of Strengthening the quality of Nursing Education (Proposal 1). The project period is 4 years.

6. Points to consider upon implementation

- It is necessary to consider strategies taking into account the heavy workload of nurses, so that . the workload of all staffs will not significantly increase during the training period.
- It is necessary to confirm the progress of the CPD framework being developed by DGNM and other donors.
- It is necessary to consider an incentive system in which the improvement of knowledge and skills through continuous education leads to promotions.
- It is necessary to coordinate with DGHS.

Appendix 5

Project for Strengthening Measures Against Aging Society

(Technical Cooperation Project) (tentative)

1. Objectives

Bangladesh has a population of approximately 170 million (2024), and the aging rate (population aged 60 and over) is 8% as of 2023, but is expected to rise to around 22% by 2050. The aging of the population is believed to be primarily due to a decline in the birth rate and an increase in life expectancy due to improvements in the quality of health care services (MoHFW).

Decline in the birth rate: Women used to have an average of six or more children, but this has declined to less than two today Increased life expectancy: Improved medical care has increased the average life expectancy from about 47 years in the 1970s to about 72 years today.

As the aging of Bangladesh's population is inevitable in the future, it is necessary to develop a social welfare system through policy planning and step-by-step institutional development for the care of the elderly and persons with disabilities in anticipation of the aging of the population.

In addition, the Ministry of Health and Family Welfare, in order to address this situation as a measure against aging, the Fifth HPNSP presents specific activities to address aging in the following OP.

OP Number	Contents
4.9 Hospital Services Management (HSM)	Component 5: Comprehensive and Innovative Care
4.10 Primary Health Care	Components 5: Healthy Aging
4.30 Maternal, Child, Adolescent and Reproductive Health (MCRAH)	Component 6: Disability and Neurodevelopmental disorders (NDDs) & Mental Health and Elderly people health service

Of these, 4.9 and 4.30 provide considerations for the elderly (palliative care and monitoring of the health status of the elderly) in the current supply of medical services and health promotion activities, etc., and are an extension of the policies under implementation.

2. Outline

In general, the difference between healthy life expectancy and average life expectancy represents the period of time during which daily life is limited due to health problems. Therefore, reducing this gap will lead to an increase in the healthy life expectancy of the population and a reduction in medical and long-term care costs.

To achieve this, it is necessary to take continuous measures for (1) daily diet and exercise habits, (2) self-management of health to promote health and prevent lifestyle-related diseases, and (3) early detection of diseases.

In Bangladesh, the project results and activities were reviewed from the perspective that it is very important to prepare for the future aging society/super-aging society, as it is envisaged that health promotion activities for the elderly will be conducted under OP 4.10 Component 5, Healthy Aging.

Outcome 1: Conduct a survey to identify the current status of caregivers in urban and rural areas

Activity 1: Identification of the current situation of elderly persons
Activity 2: Identification of the current situation of elderly disabled persons
Activity 3) Analyze community and social service needs
Activity 4: Compilation of report

Outcome 2: Public long-term care services are defined

Activity 1) Examination of the content of long-term care services by the national and local governments based on the survey in Outcome 1
Activity 2: Requirements for using long-term care services are examined and developed
Activity 3) Formulation of day care packages and government approval
Activity 4) Development and government approval of a home nursing service package

Outcome 3: Healthy Aging activities are strengthened

Activity 1) Promotion of healthy activities for the elderly (e.g., prevention of frail, etc.)
Activity 2) Conduct screening for NCDs (overlap with other activities?)
Activity 3) Support SBCC activities (promotion of understanding of health, etc.)
Activity 4) Promotion of community participation (measures against loneliness and dementia prevention)

SBCC	Social and behavioral change communication

Outcome 4: Improve the quality of services by collaborating with the nursing project's activities in the field of gerontological nursing.

3. Project Implementation Structure

Under the Line Director of OP.4, the above activities will be implemented in several pilot provinces with the NCDC Division as a counterpart.

(Bangladesh side)
Project Director: DGHS Additional/Joint Secretary
Project Manager: LD, NCDC
Deputy Project Manager: Contact person in the pilot site

(Japanese side)
Team Leader/Aging Policy
Elderly Support(1)
Elderly Support(2)
Disabled Elderly Support
Service Package Development(1)
Service Package Development(2)

4. Estimated Budget Amount and Proposed Schedule

4 Years (1st term: 2 year, 2nd term: 2 year)
Expected MM: 80MM/4 years
Estimated Budget Amount : 370 Million Yen

Outcome1：Commencement of Project～18th months
Outcome 2：from 12th month ～24th months
Outcome3：2nd term of the project

5. Special Note

(1) Clarification of the duties under the jurisdiction between the NCDC Division of MoHFW and the Ministry of Social Welfare (MSW) (especially the Department of Social Services (DSS)), as healthcare and social services (including long-term care) are inherently continuous.
(2) Identification of the content of services to be provided as NoHFW, given the limited budgets of the ministries concerned.

Appendix 6

Policy Advisor

(long-term or short-term expert)

1. Objectives

As Bangladesh's economy has developed, the population has shifted to nuclear families as a result of the influx of population into urban areas, and the population has aged due to the declining birthrate and increasing average life expectancy. The structure of the labor market is dominated by informal sector workers, such as BPL and agricultural workers, who are still numerous.

In the overall healthcare policy under the jurisdiction of the MoHFW, there is a need for improvement in both quantity and quality in terms of hardware and software, such as the shortage of doctors and nurses in absolute numbers, in addition to the shortage and aging of healthcare facilities. In addition, the disease structure has changed from a situation in which the majority of diseases were caused by infectious diseases to one in which non-communicable diseases are rapidly increasing. Under these circumstances, financial resources for the health sector are chronically inadequate, and policy implementation has been enhanced through the use of development programs such as the HPNSP, with financial support from donors.

The Ministry of Health and Family Welfare (MoHFW) includes the Directorate General of Health Services (HSD), which is responsible for overall health services, the Directorate General of Medical Education and Family Welfare (ME&FWD), and the Directorate General of Nurses and Midwives (DGNM), which is responsible for training nurses and midwives, but coordination among the departments is not always smooth. In addition, in dealing with the future aging of the population, cooperation with the Ministry of Social Welfare, which has jurisdiction over social services and the pension system, is also required.

Thus, the Policy Advisor will provide support for policy formulation and coordination with various policies.

2. Outline

This advisor will provide technical advice to ensure the smooth implementation of the health system, including policy planning and institutional reform. Currently envisioned tasks include the following.

1) Reexamination of the medical supply system (thorough referral system when receiving and treating patients at tertiary medical institutions and, if necessary, a reverse referral system to the secondary level)

2) Examination of how hospitals should be functionally differentiated (acute care, convalescent, chronic care, rehabilitation, etc.)

(a) Easing the concentration of patients in tertiary care hospitals

(b) Support for study of the possibility of establishing base hospitals (tertiary level) in rural areas

(c) Support for consideration of the establishment of future chronic care wards/hospitals

3) Effective utilization of private medical institutions

(a) Consideration of the role of private medical institutions (assignment of social responsibility: imposing an obligation to contribute to rural areas at the time of approval for establishment, etc.)

(b) Study on how medical expenses should be paid by private medical institutions

4) Support for the nationwide development of SSK (with reference to past experiences of MFIs, etc.)

(a) Understanding of insurance and the relationship of benefits to enrollment

(b) Consideration of whether it makes sense to purchase insurance even though medical services up to the county hospital level are free of charge.

(c) Examination of the possibility of insurance coverage for private medical institutions

5) Others

3. Implementation Structure

Long-term expert dispatch (3 years) or short-term expert dispatch (about 24MM in 3 years)

4. Special Note

Should he/she be policy advisors to MoHFW or should he/she also include MoSW as a counterpart, with an eye to addressing the aging population?

Appendix 7

Technical Assistance

under Finance and Investment Account: Health, Population and Nutrition Sector Program

1. Project Objective

To provide the necessary technical assistance to facilitate progress on results based loan that support the achievement of the goals of the 5th Health, Population and Nutrition Sector Program developed by the MoHFW which aims to improve health and well-being by embodying health, nutrition and population goals to achieve universal health care.

2. Project Overview

To provide technical assistance to facilitate the implementation of the activities of the 5th Health, Population, and Nutrition Sector Program in the respective OPs on the noncommunicable diseases control, nursing and midwifery services and education components. Specifically, the project will support the following tasks:

NonCommunicable Diseases Control: 1) Coordination with relevant units and institutions within MoHFW for smooth implementation of JICA technical assistance to include USC in NCDC, and identification and collection of evidences as a basis for performance indicators.

Nursing: 1) Support for MoHFW's approval of teaching materials and teacher guidance documents to improve nursing education, 2) Support for creating an institutional settings for the implementation of JICA technical cooperation which provides continuing and specialized field education to in-service nurses.

3. Implementation Scheme

Under the supervision of the project manager, two consultant sub-teams will be formed, each dedicated to a specific field, and will be assigned respecrtively to the Line Director's office for noncommunicable diseases control, nursing and midwifery services, and nursing and midwifery education. However, since the work related to nursing and midwifery services and nursing and midwifery education OP requires work and coordination between HSD and MEFWD, a sub-team leader will be assigned, who will be in charge of both HSD and MEFWD LD offices.

4. Proposed loan amount and schedule

Proposed loan amount : 600 million Japanese Yen

Temporary schedule: Starts in July 2025 and ends in June 2029

5. Remarks for implementation

Assistance for the part of the indicators shared with the ADB's results based loan will be provided by the technical assistance to be provided by ADB. Therefore, this technical assistance will be provided for activities related to the achievement of JICA's own disbursement linked indicators. Particularly significant is guidance and support for MoHFW institutional reforms, including participation of USC in NCDs program, approval by MoHFW of nursing education teaching materials and teacher instruction manuals, and the establishment of systems for the implementation of continuing and specialized education for in-service nurses.

Appendix 8

The Project for Strengthening of Hospital Management

1. Background

In Bangladesh, there is a significant shortage of medical personnel at district hospitals in rural areas. Although the number of doctors and nurses is somewhat sufficient in urban tertiary hospitals, the overall management system of the hospital is not established, and the quality of service provision in diagnosis, treatment, and nursing care is low. In many public hospitals, excluding private hospitals and clinics, patient records are piled up, making it difficult to diagnose and treat patients based on their medical history and medication status. The hospital premises, both inside and outside, are crowded with patients and their families, leaving no room to move. There is no system for calling patients or determining the order of consultations, leading to arguments and disputes among patients waiting for their turn in the consultation room, and the privacy of patients during consultations is not ensured.

2. Project purpose

This project aims to improve the quality of service at secondary and tertiary medical facilities established through both grant and paid projects. It focuses on strengthening hospital management, enhancing hospital information systems, and introducing approaches to improve service quality. It seeks to contribute to the continuous utilization of grant and paid projects at the target hospitals, thereby improving the quality of medical services.

3. Project Outline

Project Goal: The quality of medical services at the target hospitals is enhanced.
Outcome 1: Governance and hospital management at the target hospitals function effectively.
Outcome 2: Hospital information systems at the target hospitals are strengthened.
Outcome 3: The functionality for the use and maintenance of facilities and equipment is enhanced.
Outcome 4: Approaches to improve service quality are effectively implemented at the target hospitals.

Activity 1 (for Outcome 1):

- Conduct training for hospital staff on the methods and intentions of formulating annual activity plans for the target hospitals.
- Hold regular meetings of existing institutions and committees related to hospital management, such as the Hospital Board (CA), Hospital Medical Committee (CME), Hospital Technical Committee (CTE), Hygiene and Occupational Safety Committee (CHST), and Infection Control Committee (CLIN).
- Summarize recommendations from the previous year's management reports and, based on the accounting, personnel, and equipment information collected in Activity 2, formulate and approve the annual activity plan (PTA) involving relevant departments and stakeholders.
- Monitor the annual activity plan (PTA) quarterly at the hospital level.
- Share the implementation status of the annual activity plan (PTA) at quarterly coordination meetings with the State Health Bureau.
- Prepare and submit reports (hospital quarterly activity reports, quarterly budget monitoring reports, hospital management reports) within the deadlines.

Activity 2 (for Outcome 2):

- Establish and operationalize a medical information unit at the target hospitals.
- Conduct training for hospital staff on data analysis, optimal use of hospital information systems and medical information systems, physical and electronic archiving systems, and proper filling and maintenance of management tools (registers, records, forms, booklets, etc.).
- Collect and analyze data on accounting, personnel, equipment, etc., through the use of hospital information systems.

Activity 3 (for Outcome 3):

- Establish a facilities and equipment maintenance department at the target hospitals.
- Appropriately allocate medical engineers and other personnel using the information from various committees in Activity 1 and personnel, financial, and asset information from Activity 2.
- Formulate activity plans for facilities and equipment maintenance and create daily, monthly, and quarterly checklists.
- Conduct training on equipment maintenance.
- Update information on facilities and equipment requiring repairs and reflect it in the hospital information system from Activity 2.
- Establish a communication system with manufacturers and agents for repairs and maintenance when necessary.

Activity 4 (for Outcome 4):

- Establish a quality department at the target hospitals.
- Conduct training on QMS (Quality Management System) for quality managers at the target hospitals.
- Provide orientation on QMS to hospital staff.
- Under the responsibility of the quality department, formulate activity plans for improving the quality of hospital services (based on the activity plans of each department).
- Implement the activity plans for improving the quality of hospital services.
- Conduct annual satisfaction surveys at the target hospitals.

3. Implementation

・Project Director： MOHFW service department

・Project Manager：General Director of the hospital

4. Estimated cost and schedule

4 years (divided to 2 phases) right after the completion of facility and medical equipment,

480 million yen

5. Considerations

In Bangladesh, various hospital information systems and medical information systems are used indiscriminately in private hospitals and some public hospitals. It is necessary to thoroughly examine the systems to be introduced in the project through sufficient consultation with the Health Services Division.

Appendix 9.

In-Hospital Digitalization Implementation Subproject (tentative name)
- Equivalent to Output 2 of the Hospital Operational Management Capacity Strengthening Project -.

1. Improving the Quality of Medical Services and Enhancing Operational Efficiency through the Digitalization of Hospital Services

Objective: By introducing existing HIS into public hospitals and promoting the digitalization of medical records, pharmaceutical management, and patient management, this initiative aims to improve the quality of medical services and enhance operational efficiency.

Background and Issues:

- The loss or incorrect recording of medical records, which have traditionally been managed on paper, has become a serious issue, making it difficult to track patients' treatment histories.
- The management and aggregation of health service statistical data are conducted manually, resulting in significant delays in their reflection as official statistics.
- Existing systems such as OpenMRS+ have been partially introduced, but different hospitals use different systems, and there is no standardization.

Specific Support Actions:

1. **Support for HIS Introduction and Standardization**
   - Customize OpenMRS+ based on the current conditions of model hospitals and support the introduction of HIS.
   - Develop a standardized electronic medical record format to ensure consistency in medical information.
2. **Support for Infrastructure Development**
   - Improve network environments (e.g., establishing Wi-Fi connectivity and constructing data centers).
   - Ensure that health statistics are automatically reflected in DHIS2-DGHS through system linkage.
3. **Support for HIS Operation and Maintenance**
   - Assign HIS administrators to the model hospitals and provide training programs supported by JICA.
   - Provide technical support for system maintenance and updates.

2. Support for HIS Operation through Improving the Digital Literacy of Healthcare Workers

Objective: To improve the quality of care and operational efficiency by equipping healthcare workers with basic digital tool skills, enabling them to appropriately use HIS and electronic medical records.

Background and Issues:

- Many healthcare workers are accustomed to paper-based operations and are resistant to using electronic medical records and data entry systems.
- There is a low level of awareness regarding data privacy in clinical settings, highlighting the need for education on personal information protection.

Specific Support Actions:

1. **Implementation of a Phased IT Training Program**
   - Basic level: Operation of PCs and tablets, data entry, and electronic medical record viewing
   - Advanced level: Clinical data analysis, report generation, and data sharing
2. **Development and Provision of e-Learning Materials**
   - Provide online training materials to allow busy healthcare workers to learn at their own pace
   - Utilize videos and simulations to ensure content is practical and task-oriented
3. **In-Hospital Trainer Development**
   - Appoint a "Digital Health Promotion Leader" in each model hospital to establish a sustainable training structure
   - Develop a system in which in-house trainers provide guidance on HIS use to other staff members in each model hospital
4. **Awareness-Raising on Data Security and Privacy Protection**
   - Establish rules for handling personal information and conduct related training
   - Educate staff on the importance of proper access management to prevent the misuse of medical data