Project Completion Report

The Project for Strengthening Health Systems through Organizing Communities in Bangladesh

August 2022

Japan International Cooperation Agency (JICA)

HM
JR
22-073

The Project for Strengthening Health Systems through Organizing Communities
(SHASTO Project)
Project Completion Report

Table of Contents

Acronym

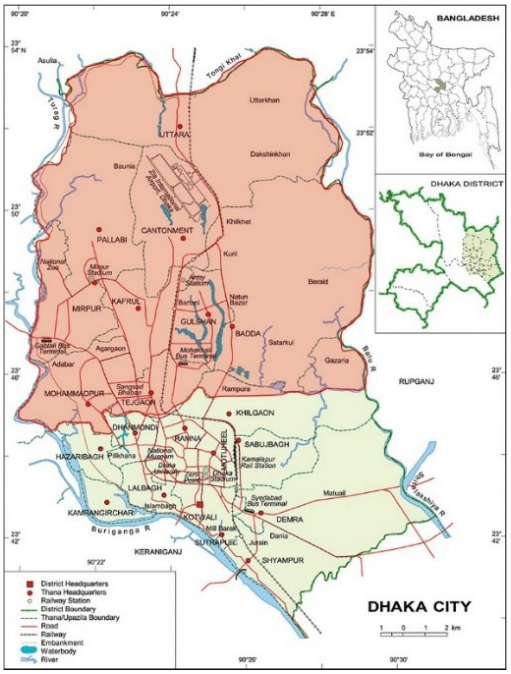
Acronym	Full Form
ANC	Antenatal Care
BCC	Behavior Change Communication
BHE	Bureau of Health Education
BMI	Body Mass Index
BP	Blood pressure
C/P	Counterpart
CBHC	Community Based Health Care
CC	Community Clinic
CCHST	Community Clinic Health Support Trust
CG	Community Group
CHCP	Community Health Care Provider
CS	Civil Surgeon
CSG	Community Support Group
CVD	Cardio Vascular Disease
DAC	Development Assistance Committee
DD-FP	Deputy Director Family Planning
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
DHIS-2	District Health Information System-2
DM	Diabetes Mellitus
FPI	Family Planning Inspector
FWA	Family Welfare Assistant
FWV	Family Welfare Visitor
GDM	Gestational diabetes mellitus
GOD/UD	Government Outdoor Dispensary/Urban Dispensary
HA	Health Assistant
HPNSP	Health, Population and Nutrition Sector Programme
HSM	Health Services Management
HT/HTN	Hypertension
icddr,b	International Center for Diarrheal Diseases Research, Bangladesh
JCC	Joint Coordination Committee
L&HEP	Lifestyle & Health Education and Promotion
LD	Line Director
MA	Medical Assistant
MH	Maternal Health
MHV	Multipurpose Health Volunteer
MI	Motivational interviewing
MO	Medical Officer
MOH&FW	Ministry of Health and Family Welfare
NCD	Non-Communicable Disease
NCDC	Non-Communicable Diseases Control
OP	Operational Plan
PDM	Project Design Matrix
PEN	Package of Essential Non-Communicable (PEN) Diseases Interventions for

	Primary Health Care in Low-Resource Settings
PIC	Project Implementation Committee
PO	Plan of Operation
QI	Quality Improvement
QIC	Quality Improvement Committee
RMO	Residential Medical Officer
SACMO	Sub-Assistant Community Medical Officer
SDGs	Sustainable Development Goals
SHASTO	Project for Strengthening Health Systems through Organizing Communities
SMPP	Safe Motherhood Promotion Project
SOP	Standard Operating Procedures
SSN	Senior Staff Nurse
STEPS	Stepwise Approach to NCD Risk Factor Surveillance
SWPMM	Sector Wide Program Management and Monitoring
TOT	Training of Trainers
TQM	Total Quality Management
UFPO	Upazila Family Planning Officer (DGFP)
UH&FPO	Upazila Health and Family Planning Officer
UH&FWC	Union Health and Family Welfare Center
UHC	Upazila Health Care
UNICEF	United Nations Children's Fund
Upz.	Upazila (Sub District)
UZHC/UHC	Upazila Health Complex
WB	World Bank
WHO	World Health Organization
WIT	Work Improvement Team

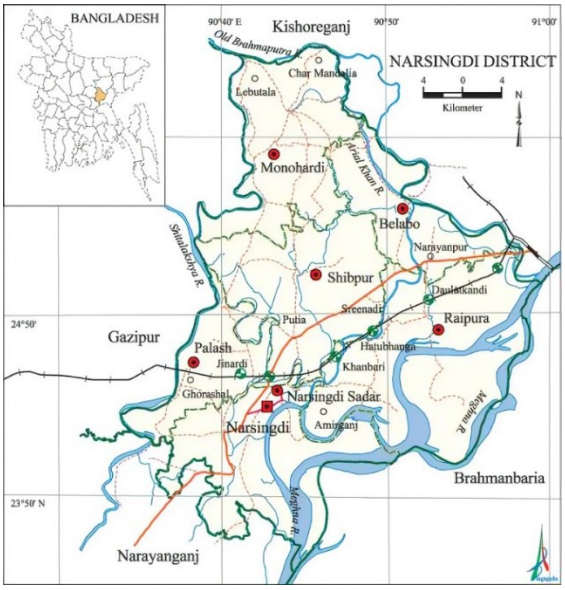
Maps

Bangladesh and Target Area

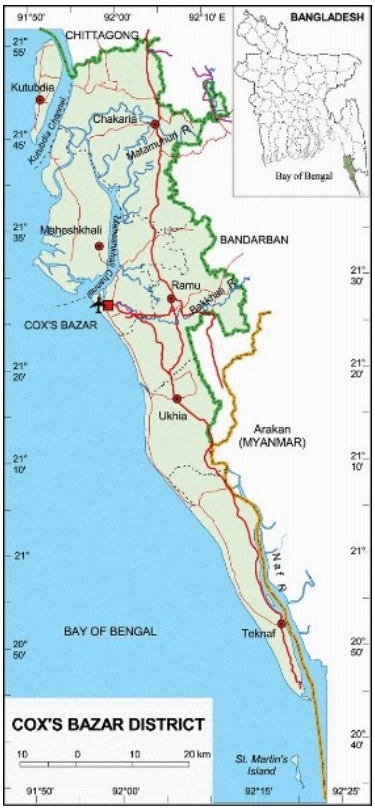
Dhaka North



Narsingdi District



Cox' Bazar District



I. Basic Information of the Project

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1. Country: Bangladesh

Bangladesh has a population of about 160 million people in an area of 147,570 sq. Km. The country is bounded by India on the west-north and northeast, Myanmar on the south-east and the Bay of Bengal on the south. Despite being about 40% of Japan's area, it is the most densely populated country in the world with a majority of the people being Muslim (See the map). The Gross Domestic Product (GDP) per capita is US$ 5,821 (PPP, 2021 World Bank Statistics).

Table: GDP

GDP per capita: 5,821 USD	2021
Nominal	2,122 USD
Purchasing Power Parity: PPP	5,821 USD

Health status of Bangladesh:

Because of changes in lifestyle, dietary habits, and economic development, NCDs are increasing in Bangladesh. The NCDs (cardiovascular diseases, cancer, diabetes, and mental illness) in Bangladesh account for 67% of all deaths and are in the first place[1].

Maternal mortality has declined over the last decades. The uptake of Antenatal and post-natal care services is increasing with the increase in delivery at the health facilities and by skilled birth attendants. However, neonatal, under-five, and maternal mortality requires further efforts to achieve the SDG targets. According to the health facility survey conducted in 2017[2], maternal and child health services are provided at 72% of the health facilities nationwide. Compared to urban areas, the maternal and child health indicators are poorer in rural areas (BDHS17-18).

Obesity and overweight are also increasing. One of the factors associated with increased obesity among women is possibly the booming of garment factories since the early 1990. This has created employment opportunities for women. As a result, there is an increase in family income that has led to higher calorie intake, and it has resulted in improved nutrition and obesity., Due to improvements in communication, accessibility to electricity, TV and mobile phone networks, industrial foods are easily available even in rural areas which are not healthy. Because of this, there is speculation that the risk for NCDs and MCH complications may increase in the future. It is, therefore, necessary to take integrated measures to combat the NCDs and their complications.

[1] World Health Organization (2018). Non-communicable diseases country profiles 2018.

[2] National Institute of Population Research and Training (NIPORT) and ICF. (2019). Bangladesh Health Facility Survey 2017.

2. Title of the Project

"Strengthening Health System through Organizing Community Project (SHASTO Project)"

3. Duration of the Project (Planned and Actual)

The duration of the Project was Five years (from 29th July 2017 to 28th July 2022) and there were no changes to the duration.

4. Background (from the Record of Discussions: R/D)

Bangladesh has made remarkable improvements in the health sector, particularly in the area of maternal and child health during the last decades. Data indicates that there is a reduction of maternal mortality ratio (per 100,000 live births) from 574 in 1990 to 176 in 2015, and the under-five mortality rate (per 1,000 live births) from 144 in 1990 to 41 in 2015. While the SDG related health outcomes show much improvement, challenges remain as regards to ensuring the quality of health care services. Further, the rapid rise in morbidity and mortality caused by non-communicable diseases (NCDs), such as cardiovascular diseases (CVDs), diabetes, chronic respiratory diseases, cancers, and renal diseases are putting an increasing burden on society and the health system. The WHO report of 2014 shows that the NCDs are accounting for 59% of all deaths in the country. Data indicates a significant (20%) increase in ischemic heart disease in the last 20 years. The risk factors for NCDs in Bangladesh are the use of tobacco, household air pollution and unhealthy lifestyles, such as consumption of unhealthy diets and inadequate physical activities.

Japan International Cooperation Agency (JICA) supported the implementation of a technical cooperation project (TCP), the Safe Motherhood Promotion Project Ⅱ (SMPP-II) during 2011-2016. SMPP II consolidated the success of its proceeding TCP, SMPP-I (2006-2011). The "Narsingdi model", originated from SMPP-I, has been expanded to other parts of the country in which MNCH services are strengthened through integrated interventions targeting the communities, health facilities and local government bodies. The 5S-CQI-TQM, which is a tool to improve the working environment and elevate staff motivation was introduced to more than 120 hospitals across the country under SMPP-II. The 5S-CQI-TQM, together with capacity building of staff and support for equipment in the intervention district had increased the use of MNH services and positive changes in women's maternal care seeking behavior.

The SHASTO project is aligned with the country's current sector program (4th sector program). Building on the experiences of SMPP-I and SMPP-II, the project is supporting the bottom-up approach of improving the quality of MNH and NCD services at different levels. It additionally aims at promoting changes in lifestyle and health care seeking behaviors among the targeted population to obtain better health.

5. Overall Goal and Project Purpose (from the Record of Discussions(R/D))

The overall Goal and Project purpose are described below:

Overall Goal The health status of the population in Bangladesh is improved.
Project Purpose The Non-Communicable Diseases (NCDs) and Maternal Health (MN) services are improved in an integrated manner.

6. Implementing Agency

Under the Sector Wide Program Management and Monitoring: SWPMM (MOHFW), The project implementation agencies are:

1) Planning Wing of MOHFW
2) Health Economics Unit of MOHFW
3) Directorate General of Health Services (DGHS)
   a) Non-Communicable Disease Control (NCDC)
   b) Community Based Health Care (CBHC)
   c) Hospital Services Management (HSM) and
   d) Lifestyle & Health Education Promotion (L&HEP).

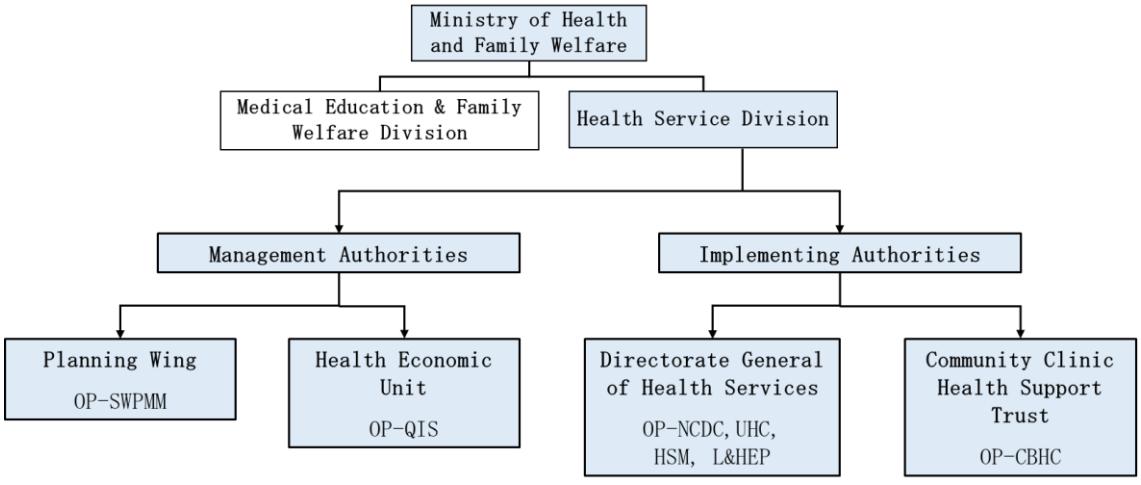

Figure 1: Organogram (Excerpts from relevant departments only)

II. Results of the Project

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1. Results of the Project

1-1 Inputs by the Japanese side (see attachments 1, 2)

The actual inputs from the Japanese side during this period were shown below and there was no difference between planned and actual inputs:

1-1-1 Total Budget

450,000,000 yen

1-1-2 Dispatch of JICA Experts

Table 1 shows the dispatch of Experts with areas and durations.

Table 1. Name, responsibilities, and duration of dispatched experts

Expertise	Name and Duration
Chief Advisor	• Yukie Yoshimura (2017-2019) • Kan Hanzawa (2019-2020) • Izumi Murakami (2020-2022)
Terms and Responsibilities 1. Management of project implementations (activity planning, operation, monitoring as a whole) 2. Preparation of work plans and monitoring sheets and discussion 3. Supervision and management of baseline, endline surveys, analysis, and reporting 4. Project Implementation Committee 5. Monitoring and supervision of output 1-4 6. Coordination with other development partners 7. Preparing and submitting project reports	
NCDs	1. Rie Ozaki (2020-2022)
Terms and Responsibilities 1. Monitoring and supervision of all activities under output 1 (NCD management) 2. Support for conducting the endline survey and its analysis 3. Coordination with related counterparts (NCDC and others) 4. Preparing reports	
Maternal and Child Health Care: MCH	• Rie Ozaki (2017-2020)
Terms and Responsibilities: 1. Monitoring and supervision of all activities related to MCH under output 1, 2, 3 2. Support for conducting baseline survey and its analysis 3. Coordination with related counterparts (NCDC, QIS, CBHC and others) 4. Preparing reports	
Quality of hospital services	• Syuichi Suzuki (2017)
Terms and Responsibilities: 1. Monitoring and supervision of all activities under output 2: Quality of hospital Service 2. Support for conducting an assessment of facilities on quality of health services and its analysis 3. Coordination with related counterparts (QIS and others) 4. Preparing reports	

Health Promotion	• Michiru Suda (2017-2022)
Terms and Responsibilities: 1. Monitoring and supervision of all activities under output 3: Community based NCD prevention 2. Support for conducting the endline survey and its analysis 3. Supervision and monitoring of NGO (contract-out) at the district level 4. Coordination with related counterparts (CBHC and others) 5. Preparing reports	
Coordinator	• Mai Ogawa (2017-2019) • Koji Kanamaru (2019-2020) • Akiko Abasi (2020-2022)
Terms and Responsibilities 1. Account management 2. Supporting all budget related activities 3. Assist all project implementations 4. Public relations	

1-1-3 Training

Three different types of overseas training were conducted during the project period.

(1) Invitation of high-ranking Government officials to Japan

In 2018, four high-ranking government officials were invited to Japan as shown in Table 2 below shows:

Table 2. Name, affiliation, duration, and contents of the training

	Name	Affiliation	Duration	Contents of Training
1	Mr. Zahid Maleque	State Minister for Health, MOHFW	2018/7/22 ～ 2018/7/28	Objective: To learn about health policies, systems, and health services related to NCD and to learn NCD countermeasures in Japan. Establish a strong cooperative relationship between the Government of Bangladesh and JICA in the Health Sector Content: Visited Japanese medical facilities and administrative agencies that conduct prevention, treatment, and diagnosis of NCDs to share their knowledge on how to provide medical services in hospital settings and equipment needed under the government health service facilities.
2	Dr. Mohammad Arifur Rahman Sheikh	Personal Secretary to Senior Secretary, MOHFW		
3	Prof. Dr. Khan Md. Abul Hashem	Line Director, CBHC, Director General of Health Services (DGHS)		
4	Dr. Nur Mohammad	Line Director, NCDC, DGHS		

(2) Third-country Training

In December 2017 and July 2019, KAIZEN training was conducted in Tanzania. There were 10 participants from the Quality Improvement Secretariat (QIS) and Hospital Services Management of DGHS, and the hospitals (district hospitals and others).

Table 3: Participants of third country training

	Training name	identity	Affiliation	Training period	Contents
1	Kaizen	Dr. Mohammad Nazamul Haque	QIS	2017/12/4～8	Objectives: To learn KAIZEN/CQI from TANZANIA which has a good practice of KAIZEN at the health facilities. Contents; In addition to lectures on KAIZEN methods, participants visited the medical facilities where 5S-KAIZEN activities are being carried out. In the end, the participants developed the activity plans for Bangladesh
2		Dr. A N M Mizanur Bahman	Residential Medical Officer: RMO, Narsingdi 250-bed District hospital		
3	Kaizen / Continuous Quality Improvement: CQI	Dr. Md. Helal Uddin	Director-General of Narsingdi Shadar Hospital	2019/7/8～2019/7/12	
4		Dr. Syed Md. Amirul Haque	RMO, Narsingdi District Hospital		
5		Dr. Mohammad Mohiuddin	Director of Cox's Bazaar District Hospital		
6		Dr. Sadia Imdad	Junior Surgeon, Dhaka Medical University Hospital		
7		Dr. Mohammad Alauddin	Resident Surgeon, Shaheed Suhrawardy Medical College Hospital		
8		Dr. Sheikh Daud Adnan	Program Manager, Hospital Service Management		
9		Dr. Mohammad Afzalur Rahman	Physician, QIS		
10		Dr. Md. Abdur Razzaqul Alam	Senior Public Health Consultant, SHASTO Project		

(3) Packaged Group Training in Japan

During the project period, participants from various government counterparts participated in the packaged group training conducted in Japan as shown in Table 4.

Table 4. Packaged Group Training in Japan

	Training name	Contents	Training period	#	Affiliated
1	Quality Improvement of Health Services through KAIZEN approach	Lectures on patient safety, infection prevention, KAIZEN methods, and KAIZEN themes. The participants prepared an action plan for creating a system	2017/8/13-9/9	1	HSM, Directorate General of Health Services

		for continuous quality improvement activities in hospitals, etc.			(DGHS)
2	Preventive Medicine: Learn from Countermeasures of NCDs in Remote Island Regions of Japan for Asia and Pacific Countries	Lectures on measures to prevent lifestyle-related diseases, site-visit at a remote island (nutrition education, practical training on the use of island songs and dances by local residents, practical training in volunteer activities in the community), preparation of action plans, etc.	2017/10/17 -11/17	1	NCDC, DGHS
3	School Health	Japanese school health system, school lunch and dietary education, school health checkups, health education, dental health, school environmental hygiene management, preparation of action plans, etc.	2018/10/14 -11/4	1	Maternal Neonatal Care and Adolescent Health: MNCAH, DGHS
4	Lifestyle Related Diseases Prevention	Lectures and site inspections on policies and systems related to measures against lifestyle-related diseases in Japan and Aichi Prefecture, specific methods for problem-solving, preparation of action plans, etc.	2018/10/14 -11/4	1	NCDC, DGHS

1-1-4 Equipment.

(1) Facilities modification/renovation with equipment：

Under Output 1, to establish the NCD corners, the project renovated health facilities and provided equipment, which are shown in Tables 5, 6 and 7.

Table 5: Modification/Renovation of NCD Corner

Prefecture name	Facility Name	Renovation results
Narsingdi	Palash Upazila Health Complex (UzHC)	Completed, Passed Inspection (2020)
Narsingdi	Shibpur UzHC	Completed, Passed Inspection (2020)
Narsingdi	Monohardi UzHC	Completed, Passed Inspection (2020)
Narsingdi	Sadar District Hospital	Completed, Passed Inspection (2021)
Narsingdi	Belabo UzHC	Completed, Passed Inspection (2022)
Narsingdi	Raipura UzHC	Completed, Passed Inspection (2022)
Narsingdi	Shibpur UzHC (expansion)	Completed, Passed Inspection (2021)
Cox's Bazaar	Ramu UzHC	Completed, Passed Inspection (2021)
Cox's Bazaar	Chakaria UzHC	Completed, Passed Inspection (2021)
Cox's Bazaar	Sadar District Hospital	Completed (2022) Passed

Table 6: Equipment

Equipment name	Items, etc. (Brand / Model Number)	Locations (District hospitals and Upazila hospitals)	Placement status
NCD corner furniture	2 desks, 2 chairs, 1 bench	[Narsingdi: 3] Sadar District Hospital, Belabo, Raipura [Cox's Bazaar: 2] Chakaria, Sadar Province Hospital	Completed
Network Printers	HP LASER JET PRINTER M404DW	[Narsingdi: 6] Sadar District Hospital, Polash, Shibpur, Monohardi, Belabo, Raipura [Cox's Bazaar: 3] Chakaria, Ram, Sadar Province Hospital	Completed
tablet	[Lenovo Tab 4 8 Plus -6 Set] [Lenovo Tab M8- 3 Set]	[Narsingdi: 6] Sadar District Hospital, Polash, Shibpur, Monohardi, Belabo, Raipura [Cox's Bazaar: 3] Chakaria, Ramu ,Sadar Province Hospital	Completed
Scale with height scale	Made in China Maximum weighable weight 160g Model: RZJ160	[Narsingdi: 6] Sadar District Hospital, Polash, Shibpur, Monohardi, Belabo, Raipura [Cox's Bazaar: 3] Chakaria, Ramu, Sadar Province Hospital	Completed
Automatic blood pressure monitor	Pro BP Monitor HBP-1120	[Narsingdi: 2] Raipura, Belabo [Cox's Bazaar: 1] Sadar Province Hospital	Completed
Blood glucose meter	Model: TVC Glu Check, TVC-200	[Narsingdi: 6] Sadar District Hospital, Polash, Shibpur, Monohardi, Belabo, Raipura [Cox's Bazaar: 3] Chakaria, Ramu, Sadar Province Hospital	Completed
3 routers	TP Link TL WR 841N Wireless	[Narsingdi: 3] Sadar District Hospital, Belabo, Raipura	Completed

1-2 Inputs from GoB side (Planned and Actual)

The actual inputs from the Bangladesh government in this period are shown below. They include:

1-2-1 Assignment of counterparts

(Project Director, Project Implementation Committee Members, Officers and health personnel engaged in the project activities, etc.) ➔ assigned as planned. Table 7 shows the names of the counterparts.

Table 7: Name and duration of the Counter Parts

Secretary of Ministry of Health and Family Welfare：

- Md. Serajul Huq Khan (2017–2018/12)
- Md. Ashadul Islam (2018/12 – 03 June 2020)
- Mr. Abdul Mannan (04 June 2020– 03 April 2021)
- Mr. Lokman Hossain Miah (04 April 2021–)
- Dr. Md. Anwar Hossain Howlader (14 June 2022 –till date)

Project Director:	
Additional Secretary (Planning), Health Services Division, MOHFW	• Dr. A.E. Md. Muhiuddin Osmani (2017– 2020/06) • Mr. Md. Helal Uddin (2020/06 – 2022/05) • Mr. Mohammad Jahangir Hossain (2022/05– till date)
Project Manager (all Line Directors)	
Non Communicable Diseases Control：NCDC	• Prof. Dr. AHM Enayet Hussain (2017 – 19 February 2018, 05) (November 2019 – 30 December 2019) • Dr. Nur Mohammad (19 February 2018 – 04 November 2019) • Prof. Dr. Sania Tahmina Jhora (31 December 2019 – 08 February 2020) • Dr. Md. Habibur Rahman (09 February 2020 – 29 November 2020) • Dr. Aminul Islam Miah (30 November 2020 – 09 January 2021) • Prof. Dr. Md. Robed Amin (09 January 2021– till date)
Community Based Health Care：CBHC	• Prof. Dr. Md. Abul Hasem Khan (2017– 31 December 2019) • Dr. Shahadev Chandra Rajbonshi (09 January 2020 – 29 November 2021) • Dr. Hefeyat Hossain (09 November 2020 – 30 November 2021) • Dr. Masud Reza Kabir (30 November 2021 – till date)
Hospital Service Management：HSM	• Dr. Satyakam Chakrabarty (19 March 2019 – 04 November 2019) • Dr. Md. Khurshid Alam (04 November 2019 – 29 September 2021) • Prof. Dr. Md. Mazharul Hoque (29 September 2021 – till date)
Lifestyle, Health Education & Promotion：L&HEP	• Mr. Md. Abdus Salam (2017 – 31 July 2018) • Dr. Md. Rawshon Anowar (01 August 2018 – 05 November 2018) • Mr. Md. Abdul Aziz (06 November 2018 – 19 March 2019, 30 January 2020 – 21 March 2020, 26 January 2022– 27 March 2022) • Dr. Md. Ehsanul Karim (20 March 2019 – 30 January 2020) • Dr. Md. Abu Zaher (22 March 2020 – 22 February 2021) • Dr. Saiful Islam (22 February 2021 – 28 November 2021) • Dr. Md. Mizanur Rahman Arif (27 March 2022 – till date)
Upazila Health Care：UHC	• Dr. Md. Rizwanur Rahman (2017 – till date)
Quality Improvement Secretariat：QIS/Health Economic Unit)	• Dr. Md. Aminul Hasan (2017 – August 2019) • Dr. Md. Akhteruzzaman (September 2019 –till date)

1-2-2 Infrastructure

The project did not support the office facilities, equipment and materials to the government. There was no break in the infrastructure.

1-2-3 Local costs, such as human costs of resource persons/trainers for various trainings

The project covered the cost of transportation and allowances according to the Government's rules and regulations（CIRCULAR・Date: 06 June 2017, Guideline for providing honorarium and other relevant expenditure for attending training/ seminar/ workshop and to conduct research activities under fourth Health, Population and Nutrition Sector Program (HPNSP)、No. 59.177.014.00.00. 003.2017.66）.

1-3 Activities (Activities according to PDM outputs)

According to PDM, the activities of the outputs were related to each other and were targeted to achieve the project purpose as shown in Figure 1.

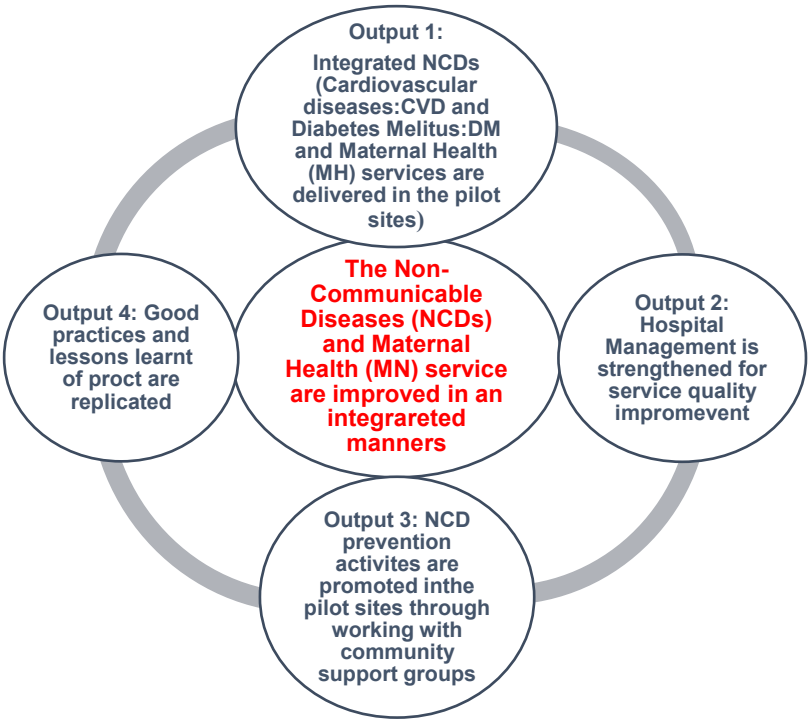

Figure 2: Correlation Diagram of Output and project purpose

1-3-1 Output 0 (see attachments number 3-5)

(1) Joint Coordination Committee (JCC) meeting

The JCC meeting was held at the end of the Project period. It was not possible to organize JCC meetings during the project period due to the difficulty in coordinating the schedule of JCC members and restrictions on movement officials due to COVID-19 pandemic.

The Project Implementation Committee (PIC) is chaired by the Project Director (PD) and meetings were held once a year. In the PIC meetings, there were presentations about the project's activities and progress, and discussion/consultations for solving the problems and barriers. The lesson is that it is difficult to coordinate if the JCC chairperson is in a high government position.

It may be easier to coordinate if the JCC chairperson nominates a representative (i.e., delegates the power to someone to take responsibility of the project) to take care of the project on his/her behalf.

(2) Project Implementation Committee (PIC)

The PIC meetings were held mostly once a year. In the PIC meetings, necessary discussions were held to implement the project. However, the PIC meeting was not held in 2020 due to the COVID-19 situation. Table 8 shows the activities related to Project Management.

Table 8: Project Management related activities

		2017/ 2018	2019	2020	2021	2022
1	Project's Joint Coordination Committee (JCC) *1	×	×	×	×	06/30
2	Project Implementation Committee (PIC) *2	12/12(2017)(1) 09/18(2018)(2)	08/28(3)		03/16(4)	06/26
3	Submission of Monitoring Sheets every six months	• 1. July 2017 ~Jan 2018 • 2. Feb ~ July 2018 • 3. Aug 2018 ~Jan 2019	• 4. Feb~ July 2019 • 5. Aug 2019~ Jan 2020	• 6. Feb~ July 2020	• 7. Nov 2020~ Apr 2021 • 8. May ~ Oct 2021	• Duration from Nov 2021 to Apr 2022 has been integrated into Project Completio n Report

*1: JCC members (by RD): Secretary, MOHFW; Planning wing, MOHFW; DGHS/DGFP; Others
*2: PIC members: Additional Secretary, HSD, MOHFW; Deputy Chief, HSD, MOHFW; Senior Assistant Chief (Health 1), Planning wing, HSD, MOHFW; Others

1-3-2 Output 1

(1) The main purpose:

The main purpose of Output 1 is "the integrated NCDs (CVD and DM) and Maternal Health (MH) services are delivered in the pilot sites".

(2) Target facilities and number, and Activities:

Target facilities of Output 1 are shown below in Table 9.

Table 9. Number of Health facilities

	Narsingdi	Cox's Bazaar	Dhaka North
	3 Upazila (District) (Shibpur, Monohardi, Palash)	2 Upazila (District) (Ramu and Chakaria) (no UHC in Sadar)	
Target health Facilities	District Hospitals: 2, Upazila Hospital (UHC): 3 Community clinics: 92	District Hospitals: 1 Upazila Hospitals: 2 Community clinics: 102	Government Outdoor Dispensary: 8

Activities:

【1-1】Conduct situation analysis on NCDs services including service guideline, protocol and training manual
【1-2】Conduct situation analysis on NCDs related MH services including service guideline, protocol and training manual
【1-3】Conduct facility assessment on NCD service delivery in the pilot sites
【1-4】Develop pilot NCD intervention guideline, protocol and training manual
【1-5】Implement the pilot NCD training in the pilot sites
【1-6】Try out the pilot NCD interventions in the pilot sites
【1-7】Monitor the pilot NCD interventions in the pilot sites
【1-8】Revise the pilot NCD interventions based on the experiences of pilot activities
【1-9】Finalize the NCD intervention guideline and protocol to be expanded in other areas (Completed in an earlier phase)
【1-10】Standardize the NCD intervention guideline and protocol to be provided throughout the country (Completed in an earlier phase)
【1-11】Support the expansion of standardized NCD intervention in collaboration with partners

(3) Overall Achievements of Output 1 (see below each activity in detail):

Output 1, first the NCD situation of the country was assessed in 2017. After assessing the situation, Bangladesh adopted the global NCD approach of WHO-PEN（Package of Essential Non-Communicable Diseases Interventions for Primary Health Care in Low-Resource Settings). The project supported the implementation of the approach in Bangladesh and helped in developing the guidelines for the "NCD management model" for the whole country, NCD management protocols, training materials, etc. in collaboration with the counterparts, and partners. Based on these education materials, the NCD management model training started in 2018 in the targeted project areas. To implement the NCD and screening services at the community clinics and Upazila health complexes, the project also provided necessary furniture, equipment and logistics. To monitor and follow up the NCD patients, the project improved the information system and carried out community awareness programs in parallel.

(4) Achievements:

Since the beginning of the project in 2017, the Project was involved in the formulation of the framework necessary for the implementation of the NCD Management Model across the country. The project closely worked with WHO, NCDC and other partners to develop the guidelines, protocols (procedure manuals, etc.), and training materials.

The project also contributed to the government implementing the NCD management model at the targeted health facilities of Narsingdi and Cox's Bazar. All the achievements are shown in Table 10.

Table 10: Achievements

Developed guidelines, protocols, etc.	1. National Protocols for Hypertension and Diabetes at the Primary Health Care Level (2018) 2. NCD Management Model Training Tool (2019) 3. NCD Management Model Implementation Guidelines (2020) 4. Job aids (Health Education Material): Hypertension and Diabetes Flipchart (2020)

5. Job aids (Health Education Material): Hypertension and Diabetes Animation (2020)
6. Job aids: BMI Measuring Instruments (2020)
7. Guidebook "COVID-19 and Diabetes" (2020)
8. Training Materials "COVID-19 and Diabetes" (2020)
9. National Hypertension Guideline (2022)
10. National Diabetes Guidelines (2022)

<Added NCD information to Community Clinic Guidelines>

11. Revised Community Support Group Training Manual (2018)
12. Revised Community Group Training Manual (2021)
13. Revised Community and Clinic Referral Guidelines (2021)

Training Conducted

Training related to Activities 1-1 to 1-5

Training name	Number of Participants	Implementation rate	Who is eligible?	period
Basic Training on NCD Management Model (for healthcare professionals)	48	100%	Doctors, Senior Staff Nurses (SSN), and Sub-Assistant Community Medical Officer: SACMOs	May 2019
NCD Management Model Basic Training (for Community Health Workers)	662	100%	Nurses, SACMOs, Community Health Care Providers (CHCP), Health Assistants (HA), CORE teams, etc.	March 2020
COVID-19 and Diabetes Training (Online)	150	100%	Administrators and health care workers of Divisional Health offices, Civil Surgeon office staff, and Upazila Health Complexes	August 2020
Training on the introduction of NCD digital systems	562	100%	Nurses, SACMOs, CHCP, HA, CORE teams, etc.	June 2021 - January 2022
NCD Management Model Refresher Training (for healthcare professionals)	65	100%	Superintendents, Doctors, SSN, and CORE team	February and April 2022
NCD Management Model	457	100%	CHCP, HA, CORE teams, etc.	May 2022

	Refresher Training (for Community Health Workers)				
	NCD Management Model Training	54	100%	SACMO, Family Welfare Visitors (FWV)	June 2022
	Basic Training on NCD Management Model (for healthcare professionals)	17	100%	Urban Dispensary Doctors	July 2022

Other

Training related to Activities1-1 to 1-11 (Expanded Support)

Training	Target facilities	Number	Cadres	Duration
Training on NCD Management Model Implementation Guidelines	NCDC targeted Upazilas (for 66 Upazila Health Complexes)	198	UH&FPOs, Doctors, and SSN	January 2020
Basic Training on NCD Management Model (for healthcare professionals)	Three Upazilas of Narsingdi (Belabo, Lapira, Sadar) (those Upazila are not project targets however to expand the NCD management model to the whole Narsingdi District, Project expanded trainings)	19	UH&FPOs, Physicians, SSNs, SACMOs	November 2021
NCD Management Model Basic Training (for Community Health Workers)		262	CHCP, HA, Supervisors	December 2021 - January 2022
Training on the introduction of NCD data integration systems		279	CHCP, HA, Supervisors	February-April 2022
NCD Management Model Workshop	NCDC targeted Upazilas (for 270 Upazila Health Complexes)	270	UH&FPOs	March 2022

IEC materials development

1. BTV program: Hypertension (2019)
2. BTV program: Diabetes (2019)
3. BTV program: Tobacco use (2019)
4. BTV program: Physical Activities (2019)

	5. Animation: COVID-19 and Diabetes (2020) 6. Documentary: COVID-19 and Diabetes (2020) 7. Poster: COVID-19 and NCDs (2020) 8. Online platform: COVID-19 and Diabetes (2020) 9. Animation: World Diabetes Day 2020 (2020) 10. Animation: World Diabetes Day 2021 (2021)

(5) Lessons learnt from the activity:

1) Integration of NCD and Maternal Health services

The project conducted a situation analysis on NCD-related Maternal Health services and found that the issue of hypertension and diabetes during pregnancy was not adequately addressed in the existing Maternal Health Services. Based on this finding, the project targeted the integration of maternal health with the NCD management model. At the project sites, access to the NCD services by pregnant and postpartum women has gradually increased through improved coordination between NCD corner and the outpatient department of obstetrics and gynecology.

The project facilitated discussion among the Maternal, Neonatal, Child, and Adolescent Health department (MNCAH), donor agencies, and NGOs for incorporation of the NCD management measures into public maternal and child health services. The project also proposed the addition of NCD-related information in the existing Standard Operating Procedures (SOP) for Maternal Health Care.

Coordination between the Directorate General of Health Services (DGHS) and the Directorate General of Family Planning (DGFP) at the national level was a challenge. For this reason, the project provided training (on NCD management models) to the DGFP health workers in collaboration between DGFP and DGHS at the District and Upazila levels. At the District and Upazila levels, the relationship between DGFP and DGHS has already been established, and the project was able to obtain support from the DGFP for the introduction and implementation of the NCD management model.

2) Motivation

The strong commitment of the service providers is the key to implement the NCD management model at health facilities. Simultaneously, it is also important to improve the quality of NCD services. The project addressed these issues through raising the awareness of the staff on their roles and responsibilities, capacity building and introduction of 5S and PDCA.

3) Staff Transfer

Regular and periodical transfer of staff is the government policy. The project observed frequent transfer of staff (including the trained staff), such as superintendents, UH&FPOs, doctors, nurses and other staff. At the project target facilities, the team approach was used to involve the nurses and doctors. Collaboration between staff at the NCD corner and other clinical departments and coordination between the community clinics and NCD corners were enhanced through coordination meetings. In order to establish and sustain the NCDs services and to ensure the quality of services, it is recommended to carry out continuous training for all the relevant hospital staff.

4) Promoting Collaboration

The project coordinated with NCDC and other departments of DGHS for providing integrated NCDs services. It sometimes took time to get an agreement on the activities because all the departments had their own targets, priorities and different methods of implementation of the activities. However, the experience and relationship that was built with the CBHC during the previous project (SMPP) period helped the smooth introduction of the NCD management model at the community level.

5) Management Enhancements at the National level

The service package of the NCD management model is planned to be expanded in other parts of the country according to the NCDC operational plan. In addition to site visits, NCDC conducts monitoring and supervision activities using digital information systems and online meetings. However, for ensuring the quality of NCD services, it is necessary to further strengthen the monitoring and supervision system with an uninterrupted supply of medicine (antihypertensive drugs and hypoglycemic drugs) and equipment.

(6) Activities in detail

The activities carried out during the project period are described below.

【1-1】Conduct situation analysis on NCDs services including service guideline, protocol and training manual

A situation analysis on NCDs in Bangladesh was conducted from October 2017 to March 2018. The results of the assessment showed the necessity of establishing an NCD service delivery system at the primary health care level. It was also recommended to introduce the WHO-PEN (Package of Essential Non-Communicable Diseases Interventions for Primary Health Care in Low-Resource Settings), which was implemented as a pilot in Bangladesh in 2012. The findings of this assessment are the basic information for developing an NCD management model.

【1-2】Conduct situation analysis on NCD related MH services including service delivery guideline, protocol and training manual

Situation analysis to assess the NCD and related MH services was conducted in 2018. Reviewing the report, the project found that the issue of hypertension and diabetes in pregnancy was not adequately addressed in the existing MCH services. The Maternal Health Standard Operating Procedures (SOPs) developed in 2017 included the guideline for the management of hypertension during pregnancy (usually occurs after 20 weeks of gestation), such as Pre-eclampsia/Eclampsia. However, there is no guideline for the management of chronic hypertension. Similarly, the government did not have any standard guidelines for the management of diabetes among pregnant women who developed diabetes before pregnancy. Although the number of pregnancies with NCDs is not reported accurately, the number may be increasing as the prevalence of NCDs is increasing in Bangladesh. Therefore, the project recommended incorporating the appropriate guidelines to control NCDs during pregnancy in the maternal health-related SOPs and integrating

maternal health as a target for the NCD management model. Although the consensus was obtained for the incorporation of the NCD management in the existing SOP, the project could not achieve this since the project activities were affected by the COVID-19 pandemic.

【1-3】Conduct facility assessment on NCD service delivery in the pilot sites

The health facility assessment was conducted by the SHASTO Project at the targeted facilities in the pilot districts in collaboration with the project counterparts from April to July 2018. The local healthcare providers and CORE team[3] members were involved in the assessment to ensure their participation in the NCD activities and build their capacity. The assessment was designed based on the HEARTS technical package of WHO. From the assessment, the following issues were identified: (1) Lack of medical equipment and medicines at the facilities to provide NCD services, (2) Lack of health education materials, (3) Lack of trained healthcare personnel, (4) Lack of NCD corners and patient referral system, (5) Not yet conducted the NCD-related awareness-raising activities at the community level, etc. These assessment findings were utilized in developing the activity plans at each health facility.

【1-4】Develop pilot NCD intervention guideline, protocol and training manual

NCDC developed the National protocol for the management of Diabetes and Hypertension in 2018, the training manual on the NCD management model [4]in 2019, and the NCD Management Model Implementation Guideline in 2020 in collaboration with NCD partner organizations [5]and NCD specialists. Meanwhile, the health education materials, such as flip charts, video clips, and BMI calculators were also developed in collaboration with NCDC and NCD partner organizations.

The National Protocol for the Management of Hypertension and Diabetes, developed in 2019, targeted the healthcare facilities at the primary level, such as Community Clinics (CC) and Upazila Health Complexes (UHC). The development of clinical protocols for the secondary and tertiary level health facilities was needed since these are the referral hospitals for the primary care facilities. The initiative was therefore taken to develop a guideline for the secondary and tertiary level facilities. To accomplish the task, a working group consisting of professors and experts from the NCDC and NCD partner organizations was formed in March 2022. The working group then worked together and developed the guideline for the secondary and tertiary care facilities.

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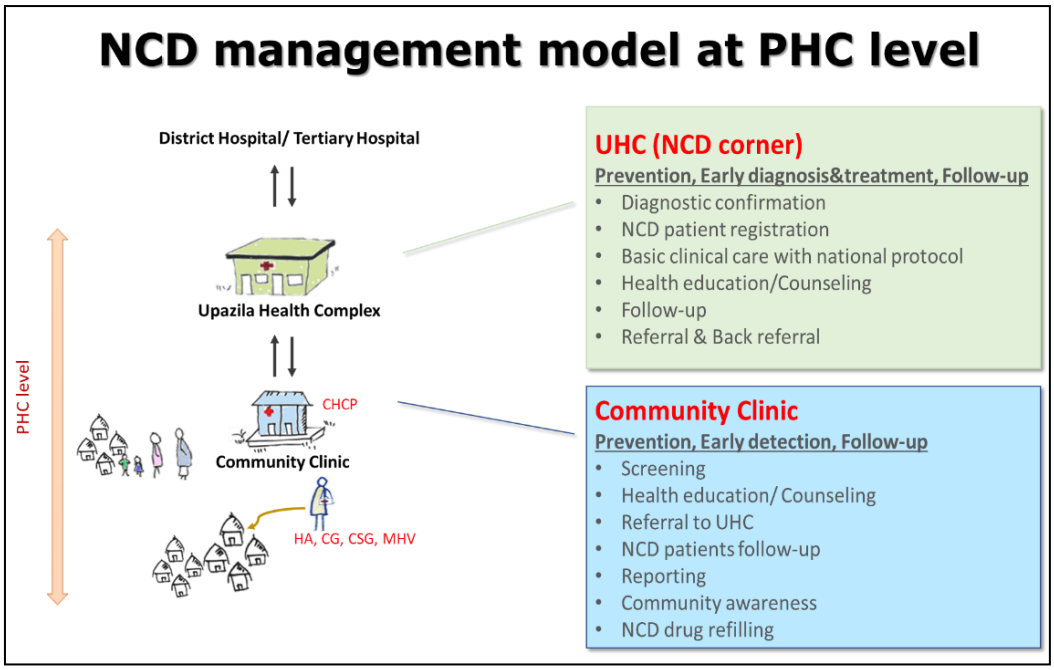
[3] The CORE team consists of selected supervisors to supervise community clinics based on the CORE team strategy (see Activity 3-7). The CORE team supports strengthening the functions of community groups and community support groups through monitoring and supervision to improve the service delivery at community clinics.

[4] Package of essential NCDs interventions for primary health care, which was developed considering the context of Bangladesh based on WHO-PEN.

[5] WHO、National Heart Foundation and Research Institute、Diabetic Association of Bangladesh (BADAS)、International Centre for Diarrheal Disease Research, Bangladesh (icddr,b)、BRAC university、Bangladesh University of Health Sciences, etc.



(Source: NCDC documents)

Figure 3: Service Delivery and Client flow in the NCD management model

【1-5】 Implementation of NCD training in the pilot sites

The NCD management model training was conducted at three levels such as National, District, and Upazila levels by trainers drawn from a level above (cascade type).

1) Training on NCD management model for MO/SSN/SACMO

NCD management model training manual was drafted by WHO Bangladesh and finalized with the technical partners including the SHASTO project. Subsequently, a 3-day training for the hospital staff (MOs, SSNs, SACMOs) was organized by NCDC in collaboration with WHO, the SHASTO project and other NCD partner organizations. In total, 48 hospital staff from 8 hospitals in Narsingdi and Cox's Bazar districts attended the training. In the training, professors and doctors of NCD partner organizations who were involved in the development of the NCD management model participated as master trainers[6].

[6] Master trainers are central-level trainers in charge of NCD management model training. They are selected from NCD partner organizations, doctors and professors specializing in NCDs, who have received WHO-PEN training.

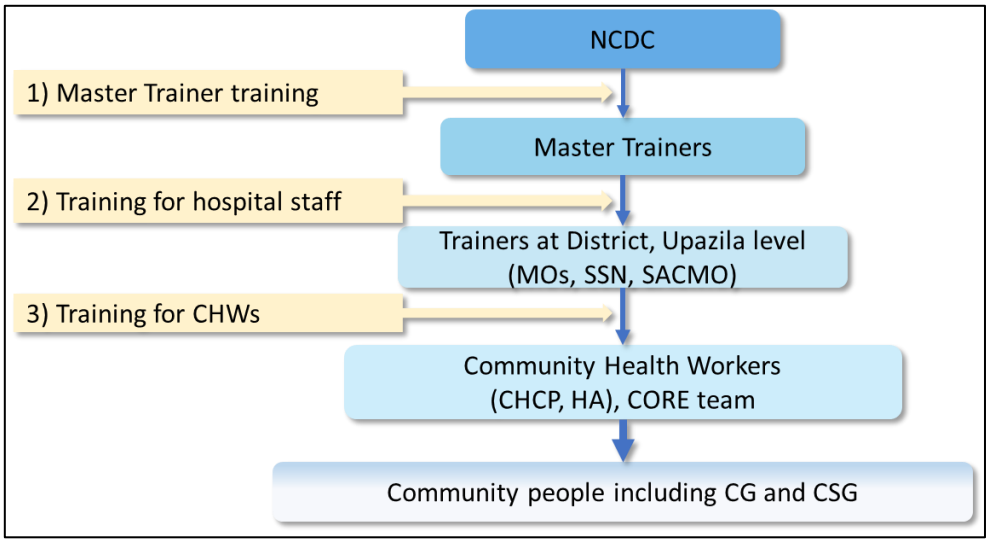


Figure 4: NCD management model training system

【1-6】Try out the pilot NCD interventions in the pilot sites

1) Installation of the necessary equipment and logistics for NCD services

Based on the health facility assessment findings conducted in 2018, SHASTO project provided all the necessary equipment and logistics for NCD services through the government supply system. The CSMD (Central Medical Stores Depot) is responsible for supplying medical equipment and medicines to health facilities. However, it took a long time to process and supply them at the health facilities.

2) Try out the NCD services at targeted health facilities

In implementing the NCD management model, the community clinics provide NCD services such as prevention, identification of risk patients through hypertension and diabetes screening tests, referrals, and patient follow-up. On the other hand, the NCD corners of the UHC provide services such as diagnosis (confirmation) of hypertension and diabetes, patient registration, health education, treatment, referral to higher health facilities, and patient follow-up. The project supported its implementation through the OJT (On the job training). In addition, the project supported the renovation works of the health facilities for the implementation of the NCD management model. The renovation works of the NCD corners have been completed at the pilot sites (Sadar hospital of Narsingdi district, Ramu & Chakaria UzHCs, and district hospital of Cox's Bazar district). At Shibpur UHC of Narsingdi district, the renovation work was completed in 2020. However, due to the increase in the number of clients at the NCD corner, the project supported an expansion of the NCD corner (at Shibpur UzHC) to have more space.

3) Reconstruction of Leda Community Clinic (Assistance for the Rohingyas and host community in Cox's Bazar)

From November 2018 to March 2020, the SHASTO project supported the host communities of Teknaf

and Ukhia Upazila of Cox's Bazar district to take care of the Rohingya population. The project aimed at improving the health status of the entire population by improving the uptake of Primary Health Care (PHC) services from the Community Clinics. As such, the project is supported by the construction of the Leda CC in Ukhia Upazila. Since the number of people seeking services from the CC has increased since August 2017 due to the influx of the Rohingya population, the extension of the clinic space was required to provide appropriate services. The reconstruction works have been completed at the beginning of 2020.

【1-7】Monitor the pilot NCD interventions in the pilot sites

Monitoring and supervision of NCD services and activities were continuously done by the CORE team and other relevant govt. officials (facilitated by project district managers and CARE). The monitoring activities were temporarily suspended from April to early August 2021 due to the COVID-19 situation. Although the situation differs from facility to facility, the system of monitoring and supervision by the UH&FPOs and CORE team has been strengthened. However, the ongoing monitoring and supportive supervision need to be strengthened to further ensure the quality of NCD services.

【1-8】Revise the pilot NCD interventions based on the experiences of pilot activities

1) Introducing the NCD drug refilling system at Community Clinics

Based on the discussions with NCDC, UHC, CBHC, and NCD partner organizations, the project provided the necessary support to introduce the NCD drugs refilling system at the community clinics in Shibpur Upazila of Narsingdi district. The refilling system at community clinics aims to improve medication compliance and reduce the patient load at the NCD corners to ensure service quality. In October 2021, the initiative was expanded to four other pilot sites in Sylhet District.

2) Revision of the Training Manual for Doctors

The first workshop for the revision of the NCD Management Model Training Manual for Doctors was held on 8 June 2021 led by NCDC. The SHASTO project provided the necessary support in organizing the workshop. A total of 24 persons, including doctors and professors who are specialized in NCDs, participated in the workshop. In this workshop, the existing training manual for doctors was reviewed based on the implementation experiences of the NCD management model. The inclusion of prevention and counseling on NCDs in the module was discussed in the workshop. To revise the document, working groups have been set up to review each topic.

3) Revision of NCD management model training modules (translation into Bangla)

The existing NCD management model training module is being used in the areas where the NCD management model is introduced. Translation of the module into Bengali was suggested by the participants during the first training in 2019. The project, therefore, took the initiative to translate

it into Bengali in collaboration with WHO.

4） Addition of NCD information to Community Clinic guideline

The Community Group (CG) training manual and CC referral guideline were revised in 2021 by CBHC. The project provided technical support and added NCD-related information in the guidelines, including the criteria for referring hypertension and diabetic patients based on NCD management model guidelines. The revised guidelines are being utilized in Community clinic-related training since January 2022.

【1-9】Finalize the NCD intervention guideline and protocol to be expanded in other areas

The clinical protocol, training manual, and NCD management model implementation guidelines developed under Activity 1-4, were reviewed and finalized based on the implementation experiences and lessons learned from the project sites, including the SHASTO project areas.

【1-10】Standardize the NCD intervention guideline and protocol to be provided throughout the country

The NCDC is expanding the target areas of NCD management model implementation as per their plan. The standardized clinical protocols, training manuals, and implementation guidelines are being used in new areas in addition to the project sites.

【1-11】Support expansion of standardized NCD intervention in collaboration with partners

1) Introducing the NCD management model implementation guideline

With the finalization of the NCD Management Model Implementation Guideline, the SHASTO project supported NCDC to organize an orientation workshop for the hospital staff (UHFPOs, MOs, SSNs) in February 2020. The main objective of the workshop was to introduce the NCD management model implementation guideline to uniformly implement the NCD management protocol. Participants from 66 UHCs (including the UHCs in the SHASTO project sites and 34 newly selected UHCs), attended the workshop.

2) Introduced NCD management model at three Upazilas in Narsingdi

To expand the coverage, the project has introduced the NCD management model at 3 uncovered Upazilas (Belabo, Sadar, Raipura) of the Narsingdi district. Accordingly, the project organized training on the NCD management model for the staff of new Upazilas. In collaboration with NCDC, the training for the hospital staff (in charge of NCD corners) was conducted during 16-18 November 2021. A total of 18 participants (from the Civil Surgeon's Office and UHCs) attended the training. Subsequently, the training for the CHWs in three Upazilas was conducted, which was facilitated by the trained hospital staff as per the following schedule (Table 16). The training included a role-play session the on NCD management model, and practical sessions on the measurement of blood pressure and blood sugar levels. The project provided technical support

in the planning, preparation, and implementation of the training.

Table 15: Training on NCD management model for NCD corner staff

Training on NCD management model for NCD corner staff (3 days)			
Upazila	Date (3 days)	Number of participants	Participants
Belabo Raipura Sadar	Nov.16-18, 2021	19	Civil Surgeon 1, Superintendent 1, UH&FPO 3, Doctor 5, SSN 6, SACMO 3
Training on NCD management model for CHWs (1 day)			
Upazila	Date (1 day)	Number of participants	Participants
Sadar	Dec.28-29, 2021	85	CHCP 31, HA 50, Supervisor 4
Belabo	Jan. 3-4, 2022	53	CHCP 20, HA 29, Supervisor 4
Raipura	Dec.21-23, 2021	124	CHCP 53, HA 65, Supervisor 6
Training on NCD digital system for CHWs (2 days)			
Upazila	Date (2 days)	Number of participants	Participants
Sadar	Apr.18-24, 2022	85	CHCP 30, HA 48, Supervisor 17
Belabo	Feb.19-20, 22-23, 2022	60	CHCP 18, HA 28, Supervisor 10
Raipura	Feb.27-Mar.4, 2022	134	CHCP 53, HA 68, Supervisor 14

3）Introduction of NCD Management Model to new selected Upazilas

To implement the NCD management model, a workshop was conducted in March 2022. A total of 270 UH&FPOs attended the workshop. This workshop was planned to reaffirm the standard framework for the implementation of the NCD management model as there were some gaps in the services at the Upazilas where the management model was already introduced. The workshop was also attended by 126 UHFPOs that were newly selected to introduce the NCD management model.

1-3-3 Output2

(1) Objective of Output 2:

The objective of Output 2 is “Hospital management is strengthened for service quality improvement”

(2) Target Facilities and activities

1) Target Facilities: Narsingdi District: 2 District Hospitals and 3 Upazila Hospitals, Coxbazar: 1 District Hospital and 2 Upazila Hospitals (there is no hospital in Sadar Upazila)

2) Activities:

Under Output 2, there are 6 activities as below:

【2-1】Conduct hospital quality assessment by hospital Quality Improvement Committee

(QIC) in the pilot sites
【2-2】Develop a quality improvement (QI) action plan based on the assessment by the hospitals (DH, UZHC)
【2-3】Implement the QI action plan by the Work Improvement Team (WIT) at the hospital level.
【2-4】Monitor implementation of the QI action plan by the hospital QIC.
【2-5】Train hospital managers and staff on PDCA and Kaizen for the advancement of QI activity.
【2-6】Support the function of the QI mechanism at the National/District/ Upazila level.

(3) Overall achievement of Output 2:

Output 2 aims to improve the quality of services at the hospitals under the project. This activity was implemented under the leadership of the Quality Improvement Secretariat of MOHFW. The project revised or reformed the quality improvement committees (QICs) and work improvement teams (WITs) at the targeted facilities. The staff was then trained on 5S and PDCA, and the activities were monitored by the project. The project also facilitated regular conduction of the QIC and WIT meetings that have strengthened the management capacities of the health managers. Following is the brief history of 5S and its objectives, and PDCA.

1) History:

To improve the quality of services, the Bangladesh government has established the Quality Improvement Secretariat (QIS) and developed the national strategy for quality improvement (QI) in 2015. The approaches for quality improvement (QI) as stated in the strategy paper are the 5S and PDCA.

To address the quality of services, QIS has developed quality improvement (QI) committees at the national, district and Upazila levels including their responsibilities. A number of QI tools have also been developed to monitor the QI activities at the health facilities.

The development partners (UNICEF, WHO, UNFPA, Save the Children, etc.) including JICA has been supporting the government to implement 5S and PDCA. The 5S and PDCA/KAIZEN were introduced by the SMPP of JICA in 2011/2012. The implementation of 5S and PDCA had improved the facility readiness and hospital environment (sorting and setting) at several health facilities in Narsingdi and Shatkhira districts.

2) The objectives of 5S

The objectives of 5S are shown in the following figure (Figure 4) for the improvement of the quality of services. The 5S refers to the following five behaviors that should be thoroughly implemented in the workplace.

Figure 5: The five actions of 5S

3) PLAN-DO-CHECK-ACT (PDCA):

PDCA is an iterative four-step management method used for the control and continuous improvement of processes and services. It is a team approach to thinking about how to solve day-to-day problems.

STEP	CONTENT	EXPLANATION
PLAN	Assortment of problems and planning of improvement actions	• Description of the problem, gathering of information, analysis of the actual state • Formulation of objectives • Assessment of actions to solve, improve or optimize
DO	Realization of concrete actions to solve the problem	• Performing actions subject to the time and resource-plan • Documentation of actions
CHECK	Validation of results and controlling of aims	• Description and controlling of results • Adaption in case of aberration • Comparison of results with objectives
ACT	Improvement of actions of the situation etc.	• Standardization of successful approaches • Starting follow-up actions • Reflecting of processes • Standardization of successful results

Figure 6: PDCA Contents

(4) Achievement of Output 2

The achievements are shown in Table 16.

Table 16 Achievement

<table>
<tr><th></th><th>Activities and Results</th></tr>
<tr><td>Central-level strategy formulation</td><td>1. Invitation to Japan: 2017 and 2018 (see 1-1-3 Acceptance of trainees)
2. Third Country Training : 2017, 2019 (same as above)
3. Group Training: 2018,2019 (same as above)
4. Participated in the development process of the Bangladesh National Healthcare Quality Strategy 2021-2030: 2021-22 ongoing</td></tr>
<tr><td>5S</td><td>1. Revised video for 5S training: 2022
2. Situation Analysis on 5S activities in the Target Areas: 2017
3. QIC at 8 hospitals in the project area, the establishment of WIT for all departments, and refresher training: 2018
4. Reactivation, Supervision and Monitoring: 2020-2021</td></tr>
<tr><td>PDCA</td><td>Training:
To improve coordination between NCD corner and obstetrics/gynecology department of hospitals in the project target areas (functions were enhanced by extracting departments in order to achieve the project goal of "improving NCDs services and maternal health services while linking them together") (details are shown under 2-5)
<table>
<tr><th>Narsingdi</th><th>Cox's Bazaar</th></tr>
<tr><td>Number of Participants: 52</td><td>Number of participants: 46</td></tr>
<tr><td>Facilities:
2 District Hospital
3 Upazila Hospital, Monohordi, Sibpur, Polash Upazila</td><td>Facilities:
1 District Hospital,
2 Upazila Hospital (Chakaria and Ramu)</td></tr>
</table>
• Strengthened Supervision monitoring for QIC and WI T</td></tr>
</table>

(5) Lessons Learned from Activities

1) Risk Management:

The Quality Improvement Committee (QIC) and Work Improvement Team (WIT) of each target facility in the project target areas were established in the previous project. After the initiation of the SHASTO project and facility assessment, 5S refresher training was conducted in 2019 and an action plan was formulated for each of the health facilities. However, all the QI-related activities were suspended due to the rapid increase in a number of COVID-19 patients due to the pandemic, restriction of people’s movement, conversion of hospitals as COVID hospitals, and vaccination program against COVID from December 2020. The project was therefore forced to re-activate 5S activities through re-training with the formulation of the revised action plan. Although it was unexpected, it was a good example for the future to have a risk management plan for quality improvement of health facilities.

2) KAIZEN Training:

The QIS's Operational Plan (OP): The OP specifies the expansion of 5S and PDCA (Plan-Do-Check-Action) nationwide. KAIZEN was not mentioned as a strategy in the QI strategy. Therefore, the project was in a dilemma whether to implement the PDCA or KAIZEN. To come up with a decision, the project consulted the QIS and it was suggested that 5S and PDCA will be the strategy for the improvement of the quality of services as mentioned in the national QI strategy. The project, therefore, adopted the PDCA approach and trained the staff on it. However, the change of Line Director, QIS and the gap created due to the COVID pandemic seriously affected the implementation of the PDCA approach.

3) Supervision and Monitoring:

The establishment of QIC at the district hospitals (target 100%) and Upazila hospitals (target 70%) is clearly shown in the OP. The QICs and WITs have been established at all the facilities in the project areas and they are active. The project regularly monitored the activities in the project areas. However, continuous monitoring and supervision by the QICs are needed to further improve the quality of services. The QIS is aware of this problem issue and needs to take realistic measures.

(6) Details for each activity

Details of each activity are shown below.

【2-0】Activities related to management

(1) Invitation to Japan (QI Observation trip of Hi-ranking Office (see 1-1-3 for detail)

(2) Group training in Japan (KAIZEN)(see 1-1-3 for detail)

(3) KAIZEN training in Tanzania (3rd Country Training) (see 1-1-3 for detail)

(4) Improvement of quality of health facilities (Support for Rohingya Host Community, Cox Bazar Province)

After the initiation of the project, hundreds of thousands of Rohingya population (an Islamic minority group in Rakhine state of Myanmar) from Myanmar moved into Cox's Bazar in August 2017, which is one of our project districts. Along with the previous migration, the total number of Rohingyas who migrated to Bangladesh is about 1 million. It is uncertain when these people will go back to their own country. Considering this, JICA headquarters suggested the Project to support the Rohingya population as well as the Host Community in Cox Bazar. Therefore, the project supported the establishment of a 10-bedded Coronary Care Unit (CCU) at Cox's Bazar district hospital to manage the increased number of NCD patients due to the Rohingya influx. To improve the quality of services, Quality Improvement Committee and Work Improvement Teams have been established. The opening ceremony of the CCU was held in September 2018. It may

be noted that the initial number of beds in the CCU was 4 at the time of opening, which was increased to 10 beds in 2019 with support from the project.

(5) Video review for 5S training

From September 2021 to February 2022, the existing 5S video (developed about 10 years back by the Safe Motherhood Promotion Project) was reviewed and updated in collaboration with Quality Improvement Secretariat (QIS). This video is an educational video used in the 5S training throughout the country by the QIS and partners. To update the video, this activity was contracted out to a professional organization, and shooting was done at the Dhaka Medical College Hospital (the activity was interrupted frequently due to the COVID-19 situation). This hospital has been implementing the 5S activities for quite a long time under the guidance and supervision of QIS.

【2-1】Conduct hospital quality assessment by hospital Quality Improvement Committee (QIC) in the pilot sites

In 2017, the District Quality Improvement Committee and the project conducted an assessment using a tool. Findings of the assessment were, (1) there are facilities that do not have functional Quality Improvement Committee (QIC) or Work Improvement Teams (WIT) even it is required according to the government policy; (2) Many of the QIC/WIT members did not receive training, and (3) there was a need to strengthen the 3S activities (organization, tidying, cleaning). Based on these findings, the project helped the targeted health facilities to review their activity plans.

【2-2】Development of quality improvement (QI) action plan based on the facility assessment by the hospitals (DH, UHC)

Based on the assessment findings, the project organized action plan formulation workshops at all the targeted facilities in 2018. In the workshop, the QIC and WIT members discussed together and developed action plans for their respective facilities. The action plan included a) activation (regular meeting) of QIC and WITs; b) staff training on 5S; c) strengthening of 5S activities; and d) regular monitoring and supervision by the QIC. As a result, the training on 5S was conducted in 2019 and 2020 (see 2-3).

【2-3】Implement the QI action plan by Work Improvement Team (WIT) at hospital level.

The project and the District QIC conducted the refresher training to strengthen the QI activities and implementation of 5S at the targeted hospitals in 2019 and 2020. During the training, the staff reviewed the previous plan and developed a revised action plan. Activities, as planned, were then carried out by QIC and WIT. They (QIC and WIT) also conducted regular monthly meetings. However, due to the COVID-19 pandemic, the staff became engaged with COVID prevention activities and the QI activities were severely restricted. From June 2021 to June 2022, the project reviewed the 5S activities at the facilities and restrengthened the activities by organizing meetings

with the hospital management.

【2-4】Monitor implementation of the QI action plan by the hospital QIC.

After activities 2-3, project staff along with the district QIC members jointly monitored the situation to understand how far the action plan has been implemented at the facilities. The monitoring was done using a checklist developed by the QIS, which is recommended to be used during the monitoring visits for quality assessment. It was observed that due to the busy schedule and COVID situation, the facility QIC and WIT activities were irregular.

【2-5】Train hospital managers and staff on PDCA and Kaizen for advancement of QI activity

From July 2021, after the implementation and achievements of the 5S (when the COVID-19 situation was favorable), the project in collaboration with QIS conducted the PDCA training to further improve the quality of services (see Table 18). The training was focused on improving the quality of NCDs services and the target was the staff working at the NCD Corners and the Department of Obstetrics/Gynecology. The background of selecting the staff from the obstetrics and gynecology department for the PDCA training was to improve the accessibility of pregnant and postpartum women to NCDs services.

The trainers were the project's technical staff and staff from the QIS. Along with the participants from the government health facilities, the training was also participated by the staff from Save the Children. Save the Children also provides training on PDCA to the staff of OG department of the Cox's Bazar district hospital. In total, 98 staff were trained on PDCA under the project.

Table 17: PDCA Training

Narsingdi						
Job	**Sadar Hospital (District Hospital)**	**District Hospital (100 beds)**	**Monohordi Upazila Hospital**	**Sibpur Upazila Hospital**	**Polash Upazila Hospital**	**total**
Hospital Director, Upazila Hospital Director	1	1	0	1	1	4
consultant	1	0	0	1	1	3
Doctor	3	4	1	3	3	14
Nurse	8	8	5	1	4	26
Midwife	0	0	2	2	1	5
Total:	**13**	**13**	**8**	**8**	**10**	**52**

Cox's Bazaar Province				
Job	Prefectural Hospital	Lam County Hospital	Chakaria	plan
Governor, Hospital Director, County Hospital Director	2	1	1	4
consultant	6	1	1	8
doctor	4	1	4	9
nurse	8	6	4	18
midwife	0	4	0	4
Under Save the Children	0	1	2	3
Total:	**20**	**14**	**12**	**46**

【2-6】Support the function of QI mechanism at National/District/ Upazila level.

After the PDCA training, the District QIC conducted monthly monitoring and supervision of activities using a checklist prepared by the QIS with the aim of strengthening hospital management to further improve the quality of hospital services.

However, without the project involvement, it was not regular. The main reasons are; 1) very busy hospital staff and QIC members; 2) lack of supervision and monitoring by the District QIC, and 3) lack of monitoring by QIS at the national level. Comprehensive improvements are needed.

1-3-4 Output 3

(1) Objective of Output 3:

The objective of Output 3 is "NCDs prevention activities are promoted in the pilot sites through working with community support groups"

(2) Target and Activities:

1) Target:

The target of Output 3 is shown in Table 18 below.

Table 18: Activity Targets of Output 3

	Narsingdi District	Cox's Bazar District	Dhaka North
Target Health Facilities	2 district hospitals, 3 Upazila health complex (Shibpur, Monohardi, Polash)	1 district hospital, 2 Upazila health complex (Ramu, Chakaria)	8 Urban Dispensary: Government Outdoor Dispensary
Number of community clinics: CC	**92**: 2022	**102:** 2022	
core teams (teams that monitor community activities)	District Core Team: 1 Upazila Core Team: 3 (Number of members: 7 each)	District Core Team: 1 Upazila Core Team: 3 (Number of members: 7 each)	

Community groups: CG (management body of community clinic) (1 for each CC)	**92:** 2022	**102:** 2022	
community support groups : CSG (mainly engaged in community activities and awareness-raising) (3 for each CC)	**276**: 2022	**306:** 2022	

The role and functions of each group are described in Table 19.

Table 19: Functions of each group

Community Clinic	- Basic healthcare services are provided six days a week, covering the app. 6,000 population (catchment area). - No doctors or nurses are deployed. - A Community Health Care Provider (CHCP) who received a short training is assigned to provide basic healthcare services. In addition to outreach activities, a Health Assistant (mainly responsible for infant immunization, etc.) and FWA (mainly responsible for family planning) provide services in CCs three days a week. - A new intervention with the deployment of Multipurpose Health Volunteer (MHV) has been introduced in 2019 in the pilot areas. Five to seven MHVs are engaged in each CC catchment area. They conduct household visits, collect information, aware the community of health issues, etc. They follow up with the patients and inspire them to get services from the nearby CC and cooperate with other field workers. The MHVs get a small amount of honorarium.
CG	- Community Group is a community level organization involved in the management of the CC. - The CG consists of 13 to 17 members. The president is the elected Union Parishad (UP) member who is supported by two vice presidents; one is the land donor or his/her representative and the other is selected by the community people. Other members are from different sectors i.e., social workers, religious leaders, adolescents, and others. - Each CG is expected to hold a monthly meeting to discuss health issues in the community. It also manages the Community fund that is donated by the local people to support the community problems.
CSG	-Every CC has three CSGs. -CSGs have 17 members including the CG members. They are selected from different economic classes and occupations through a village meeting. -They are expected to hold bi-monthly meetings to discuss activities. -CSG members facilitate utilization of CCs by mobilizing the community, awareness raising on health issues, and facilitating local resource mobilization for CCs.

Core Team	-"Core Team Strategy" was adopted in the Project target areas, which is a strategy to further strengthen the CC activities and functioning of CG/CSG. The core teams are formed at the district and Upazila levels. There is a focal person for each core team, who is responsible for the overall monitoring and supervision of the CC, CG and CSG activities. -Core team members monitor CC/CG/CSG activities. -External Facilitators (NGO staff) were allocated to provide technical assistance to establish the core teams at the district and Upazila level and support the core team in planning, and monitoring CC/CG/CSG activities.

Source: SMPP-2 Newsletter (6th ed. 2014), CBHC leaflet (2019), document on Core Team Strategy

2) Activities:

Activities of the Output 3 are:

【3-1】 Assess the status of the activities of health promotion and Community Support Group (CSG).
【3-2】 Update the CSG training manual to include NCD management.
【3-3】 Support national ToT for CSG.
【3-4】 Support organizing CSG training (development of CSG action plan) in the pilot sites.
【3-5】 Support Implementation of the CSG action plan in the pilot sites.
【3-6】 Support resource mobilization for CSGs/health facilities and local government bodies.
【3-7】 Monitor the CSG activities by the Core Team in the pilot sites.
【3-8】 Establish the CSG monitoring and support mechanism through Core Teams.
【3-9】 Facilitate mobilization of community activities in Dhaka city.

(3) Overall Achieved:

1) Contract-out Community Activities to NGOs:

Activities 3-1 (partial), 3-4 to 3-8 were contracted out to local NGOs and implemented through core team members. There are 92 and 102 CGs in Narsingdi and Cox's Bazar respectively, and 276 and 308 CSGs in Narsingdi and Cox's Bazar respectively in the project target areas. Because of the big numbers, it was difficult to directly monitor all the groups. The project decided to contract-out these activities to an NGO with wide knowledge and experience in community-based activities.

During the project period, community level activities were contracted out to two NGOs. Through this, there are findings such as; a) The NGOs which has a people-centered approach with encouragement of the community has contributions to improve the CSG activities, and some of the CSGs successfully mobilized resources (raised funds) from the community for the operation of community clinics, b) supports and funds for CC operation were obtained from the local government through coordination, and c) NCD Prevention and awareness activities encouraged community to utilize the services at health facilities and increased the number of people who are aware of NCD risk factors.

There was a discussion about the sustainability of the support provided by the NGOs since it is dependent on the availability of external funds. The government needs to find a sustainable system

(without external support) for monitoring the CC, CG and CSGs.

In order to strengthen the monitoring system, it is suggested to: a) share data and experiences during monitoring visits to CC/CG; b) encouragement by supervisors; c) practical advice by the supervisors, sharing the challenges at the CCs; and discussion on the actions to be taken to fill up the gaps.

2) Framework Formulation:

The project facilitated incorporation of the NCD Prevention messages (mainly focused on the NCD risk factors) in the training manual for CSG to raise awareness of NCD prevention in the community.

3) Capacity Building for CG and CSG Members:

In order to improve the quality of services, CG and CSGs were trained. On-the-job training was also provided by the NGOs, core team and other supervisors at Upazila levels. The CSG trainings were organized by CBHC at the late stage of the Project. The reason for the delay was the emergence of COVID-19 pandemic.

4) Enhancing coordination with government administration:

The project promoted field visits to monitor the CG and CSG activities by the high ranking officials of the MOHFW, such as the officials of BHC. This strengthened the monitoring and supervision at the local level as well. Most of the visits were conducted at Narsingdi because of its proximity to the capital.

5) Improvement of the operation of community clinics:

The project promoted the collaboration of the local government to support the CC, CG and CSGs by inviting the local government representatives to visit the CCs. This was done in consultation and cooperation with counterparts and partner NGOs.

(4) Achievements:

Table 20 below shows achievements of output 3.

Table 20: Achievements

	Narsingdi	Cox's Bazar	
Number of CCs	92(2022)	102 (2022)	**Summary of Monthly Activities** ・Support for improving PHC services at community clinics ・Support for CG/CSG activities (Including OJT)
Number of CGs	92(2022)	102 (2022)	
Number of CSGs	276(2022)	308 (2022)	
Developed guidelines, etc.	< Community Clinic Related Guidelines: Inclusion of NCD information> 1. Revised Community Support Group Training Manual (2018) 2. Revised Community Group Training Manual (2021)		

	< Multipurpose Health Volunteers (MHV） Training > (2019) 1. Guide for Master Trainers, Multipurpose Health Volunteer: for Multipurpose Health Volunteer Training 2. MHV Training Manual
Support for strengthening the capacities of core teams (supervisors who monitor CC/CG/CSG)	1. Core Team Training (3 days, Cox's Bazar: 43 participants) (2018) 2. Core Team Training (2 days, Narsingdi: 33 participants) (2019) 3. Core Team Refresher Training (1 day, Cox's Bazar: 36 participants, Narsingdi: 33 participants) (2021)
Capacity Building Support for the CC/CG/CSG and Other Community People	2019: CG training (by NGO CARE Bangladesh) (2 days) Cox's Bazar: 770 participants (3 project target districts, Ukiya and Teknaf districts), Narsingdi: 268 participants 2020: Orientation on NCD (Participants: Religious Leaders, Village Doctors) 2022: CSG Training (by CBHC), Master Trainer Orientation, ToT, Upazila Level Training (for CSG Members)
Promoting NCDs Prevention through Schools	2020: Orientation on NCDs, Participants: 95 school teachers Sessions on NCDs prevention for students, Participants: 720 secondary school students (15 sessions) 2022: Implementation and promotion of health education on NCD prevention for secondary school and madrasa students (1) National Level Advocacy Workshop, 21 participants (2) District Level Advocacy Workshop (Cox's Bazar: 35 participants, Narsingdi: 31 participants) (3) Training for School Teachers at the district level (1 day) (Cox's Bazar : 52 participants, Narsingdi: 56 participants) (4) Health education sessions on NCD prevention for secondary school students, Participants: 6,138 secondary school students (71 sessions)
IEC materials, etc.	2019: 4 BTV programs (high blood pressure, diabetes, tobacco, exercise (also mentioned under Output 1) 2021: ・"High Blood Pressure" vinyl posters:3,400 sheets, 599,000 flyers ・"Diabetes" vinyl posters: 3,400 sheets, 599,000 flyers ・"Lifestyle modifications for healthy life" vinyl poster, 3,050 sheets ・”Family Health Knowledge Book”, approx. 23cm x 16 cm (9.3" x 6.4"), 90,000 volumes
COVID-19 Awareness Activities	2021: COVID-19 awareness raising for the community ・"COVID-19 Prevention Awareness" 1,400 paper posters, 300 vinyl posters ・"COVID-19:Prevention Awareness" 71,500 flyers ・Miking (street miking by auto-rickshaw) Cox's Bazar: 98 times, Narsingdi: 52 times

(5) Lessons learned from the activities

- **NCD prevention and health activities, and collaboration with local government led by community people:**

It was not an easy task to activate CSG activities and its collaboration with local authorities uniformly as each community had different local needs and diversity of local stakeholders'

characteristics. Nevertheless, community organizations such as CG/CSG, which were established with a spirit of public-private partnership, were developed to promote community mobilization and awareness. The contracted-out NGO directly worked with the CG and CSGs along with the government health authorities. In parallel to the CG and CSG, there were MHV in the project areas who were also engaged in the community awareness activities. It was observed that, in some cases, the MHV activities were interrupted due to the delayed disbursement of funds from the government. It is recommended to further strengthen the community awareness activities, which may reduce the out-of-pocket expenditure and contribute to the achievement of Universal Health Coverage (UHC).

- **Incentives for community people in prevention and awareness-raising activities:**

For NCD prevention and awareness-raising activities at the community level, the project did not offer financial incentives considering the ownership and the sustainability of the activities. Some of the NGOs, however, offer incentives (such as snacks) for organizing the meetings. Such kind of incentives increases the expectations of the community groups. They also expected such kind of support from our project, which we could not provide. However, discussions may be needed to decide what kind of incentives should be appropriate to promote the community level activities for future programming.

- **Prevention and awareness-raising activities in the community:**

Prevention and awareness-raising activities in the community may be conducted by the stakeholders through schools (including students), religious leaders and local elites (who have a great influence on the population), pharmacies and village doctors (access points close to the population), in addition to the community clinics/CGs/CSGs and MHVs. Social network services and mass media can also be effective in raising awareness by providing up-to-date NCD-related information.

It was observed that the focus of community awareness activities at the beginning of the project was screened at the CCs. Gradually the awareness activities were expanded to the prevention of NCD risk factors. All these activities may gradually change the lifestyle and behaviors of the community for the prevention of NCDs. It is also important to create enabling environment for the prevention of NCDs, such as the availability of a safe space for physical exercise, availability of safe and affordable fruits and vegetables, etc.

- **Prevention and awareness-raising activities through schools and resource utilization:**

The project activity, 'NCDs prevention awareness-raising activities through secondary schools' was carried out in collaboration with the CBHC. In view of the sustainability of the activities, it is related to the 'healthy schools' approach. A multi-sectoral approach is needed for NCD prevention involving the Maternal, Neonatal, Child, and Adolescent Health Care (MN&CAH), Lifestyle & Health Education and Promotion (L&HEP), as well as other relevant departments.

- **Core team strategy, supervision monitoring:**

Monitoring of CC/CG/CSGs by the core team has improved CC/CG/CSG activities, such as more community clinics remaining open from 9 am to 3 pm as per regulations. However, in some cases, the transportation cost for monitoring by the core team was borne by the team members individually, which is a barrier to sustaining continuous monitoring. Discussions may be held at the national and district levels to solve the problem with the allocation of funds to support the monitoring visits of the core team.

Although the core team strategy is not an approach endorsed and adopted by the MOHFW, it is introduced as a good practice in the supervisor's training manual of CBHC. Monitoring of the community clinics/CGs/CSGs by the core teams needs to be continued under the leadership of the Civil Surgeon and UHFPO.

(6) Activities

A summary of the activities conducted is described below.

【3-1】 Assess the status of the activities of health promotion and Community Support Group (CSG).

(1) Conducted situation analysis on health promotion activities

In 2018, a situation analysis of health promotion activities was done by reviewing the reference materials and interviewing counterparts and relevant organizations. Based on the results, IEC materials on NCD prevention were developed (TV programs, etc.). The SHASTO project collaborated with another project of JICA "Project for Capacity Building on Human Development Television (HDTV) Program" (March 2015 to April 2019) and produced four TV programs on NCD prevention and management for the awareness of the general population (hypertension; diabetes; smoking cessation; and physical exercise). The programs were aired in the "Jante-chai" educational TV series on Bangladesh Television (BTV). They are also widely accessible on Facebook and other websites and are being used by NCDC in training and workshops. The video clips are also distributed to hospitals in the project areas for health education at the NCD corners and in the hospital premises.

(2) Conducted a situation analysis on the status of CSG activities

Situation analysis/assessment (all CCs in target Upazilas) was conducted on CC/CG/CSG in five Upazilas of Cox's Bazar (three target Upazilas, plus Ukiah, and Teknaf, from January to March 2019) and Narsingdi districts (from May to July 2019) by Upazila level supervisors including the Core team members (facilitated by the contracted out NGO). At the time of Project completion, an endline assessment was done by the core team supervisors (n=50, 25 CCs were selected by random sampling in respective districts). Monthly data from DHIS-2 were collected and analyzed to examine the changes in the utilization of services. The results are shown in Table 21 below.

The following results indicate that community clinics and CG/CSG activities in NCDs prevention and management have improved and increased compared to baseline, and it may be said that the project activities have contributed to some extent.

Table 21: Assessment on community activities

SL	Item	Baseline	End line	Result / Remarks	Data source
1	CC functionality				
1.1	Percentage of CC where service hours of CC (from 9 am to 3 pm[7]) were followed	CXB: 57% NAR: 27%	CXB: 100% NAR: 100%	Improved	A
2	Utilization of services, referral to higher facilities				
2.1	# of patients in the last month	CXB: 499 NAR: ND	CXB: 607 NAR: 1,046	Increased	A
2.2	# of blood glucose test in last month	CXB: 1.3 NAR: ND	CXB: 10.7 NAR: 7.7	Increased	A
2.3	# of suspected DM referrals (per year) (aggregated for respective 3 Upazilas/district)	CXB: 461 NAR: 1,524	CXB: 2,810 (510% increase) NAR: 3,140 (106% increase)	Increased	B
2.4	# of suspected HTN referrals (per year) (do)	CXB: 541 NAR: 2,516	CXB: 2,536 (369% increase) NAR: 4,569 (82% increase)	Increased	B
3	CSG activities related[8]				
3.1	Percentage of CSG which has a social map	CXB: 11% NAR: 42%	CXB: 81% NAR: 75%	Improved	A
3.2	Percentage of CSG which has the annual action plan	CXB: 6% NAR: 28%	CXB: 92% NAR: 66%	Improved	A
4	Community mobilization and health promotion				
4.1	Percentage of CC where CG/CSG are engaged in Community mobilization on NCD prevention & control	CXB: 33% NAR: ND	CXB: 100% NAR: 100%	Improved	A
4.2	# of Health Education session (inc. NCD) by	ND	CXB: 0.88 session NAR: 0.47	Unknown, but it may be presumed as improved, as	C

[7] This is a standard opening hour for community clinic, according to government guideline.

[8] CSG is expected to develop a social map and an annual plan. Respective CSG is expected to hold a bi-monthly meeting, but the result is not included here due to the following reasons. The three sources (A, B, and C) showed; non-availability of data (source B) and a great inconsistency with data quality issue (source A and C).

	CG/CSG (per month)		session	the number of NCD referrals from CC (SL#2.3 & #2.4) has increased, which health education in the community has contributed to some extent.	
5	Support & Supervision				
5.1	Percentage of CC where received support & monitoring visits by Upazila level supervisors in the last 6 months	CXB: 55% NAR: 81%	CXB: 97% NAR: 100%	Improved	A

<Abb> CXB: Cox's Bazar (data of three targets Upazilas), NAR: Narsingdi, ND: Data not available
Data source: A: Assessment by Core team (BL data: Oct. 2018, EL data: Dec. 2021, unless mentioned specifically); B: DHIS-2 (BL: 2017, EL: 2021, unless mentioned specifically); C: CARE monthly report (data: Mar. 2022)

【3-2】 Update the CSG training manual to include NCD management.

Health topics, such as maternal and child health, and communicable diseases, were included in the previous version of CSG training manuals developed by CBHC. The manual did not have any information on NCDs. The discussion was held with CBHC to add NCD related topics in the manuals at the time of revising the CSG training manuals in 2018. As a result, CBHC took the lead and incorporated the NCD related topics. The manuals were then finalized and printed, and are being used in the CSG training.

【3-3】Support the national ToT for CSG.

CSG training (at all levels: master trainer training, TOT, Upazila level) was planned with the financial support of JICA's Yen loan project. A master trainer training was conducted with the newly revised CSG training manual (under Activity 3-2) in 2018. For the project target areas, there was a plan to conduct TOT[9] in the Annual Development Plan (ADP) of 2020-21 under the CBHC with the financial support of JICA's Yen loan project. Due to the COVID-19 pandemic, it was not possible to organize the TOT within the timeframe set in the ADP. Therefore, it became necessary to revise the ADP. CBHC took the initiative, revised (extended the duration) the ADP and got it approved by the MOHFW in March 2022. Master trainer's orientation (40 participants), The TOT (216 participants from 54 Upazilas in 7 districts) and Upazila level trainings (for CSG members, Cox's Bazar: 5,202 expected, Narsingdi: 4,641 expected, in respective three project

[9] Participants in the ToT training are UHFPO, medical officers (two) and UFPO who are trainers in the Upazila level training.

Upazilas) have been conducted in June and July 2022[10].

As the NCD issues (NCD management model, risk factors and prevention) have been incorporated recently in the CSG training, the project consultant (National NCD consultant) provided necessary technical support to the TOT.

As mentioned before, activities 3-4 to 3-8 have been contracted out to NGOs. The contractors and contract duration are shown in the table below (Table 22). CARE Bangladesh was also a partner NGO in the preceding project (SMPP) and is an NGO with expertise in community engagement and Core team strategy. The national level advisors in the CARE team have extensive experience in working with CBHC and contributed significantly at the field level.

Table 22: Contracted NGOs, contract period and activities (Output 3)

Contractor	Contract period	Activities
CARE Bangladesh	1. November 2018 - March 2019 2. April 2019 - May 2019 3. June 2019 - March 2020	1. Supported strengthening of primary health care (PHC) service delivery in host communities affected by the influx of Rohingya refugees in 5 Upazilas of Cox's Bazar District (three project target Upazilas, Ukhiya and Teknaf) 2 & 3. Supported strengthening of PHC service delivery at existing community clinics in the project target Upazilas (three each in Narsingdi and Cox's Bazar district); Health promotion through working with the Community Groups (CGs) and Community Support Groups (CSGs) (All the activities were supported through district / Upazila core team members)
Dushtha Shasthya Kendra （DSK）	June 2020 - November 2020	Supported strengthening of PHC service delivery at the CCs in the six-project Upazilas of two project districts; Health promotion through working with CGs and CSGs (All the activities were supported through district / Upazila core team members)
CARE Bangladesh	January 2021 – June 2022	Same as the above

From January 2021 to June 2022, the Project contracted out to CARE Bangladesh to provide implementation support to community clinics in order to improve the PHC services and CG/CSG activities. During the first 12 months (Mar 2021-Feb 2022), two Community Health Coordinators (CHCs, responsible for district and Upazila levels), and four Assistant Community Health Coordinators (ACHCs, in charge of Upazila level) were assigned as external facilitators.

From March to June 2022, only CHCs were assigned in each district, in order to enhance the activities of the core team supervisors and to facilitate the sustainability of the activities. The major events held were kick-off meetings at the beginning, core team refresher trainings and district-level core team review meetings. Based on the action plans developed by the district and Upazila core teams, core team supervisors conducted supervision visits to CC/CG/CSG and held core team meetings. From

[10] As the Upazila-level CSG trainings have not been completed at the time of this report writing, the number of participants is not an actual but expected figure. According to the training plan of CBHC, all CSG members in the respective three Upazilas in Narsingdi (91CC) and Cox's Bazar (102CC) are scheduled to attend the training.

April 2021 to May 2022, the Upazila core team supervisors conducted 1,020 visits (average 12 visits per month per Upazila) and 101 visits by district core team supervisors (average 3.6 visits per month per district). 24 CHCP monthly meetings[11] were held at Upazila level in the said period and feedback from the supervision visits was shared in the meetings. Likewise, 43 Upazila core team monthly meetings and 13 district core team monthly meetings were held at the project target areas.

【3-4】Support organizing CSG training (development of CSG action plan) in the pilot sites.

As mentioned before, implementation of the CSG trainings by CBHC were delayed, and the project has provided support to develop the CSG action plans through on-the-job training. The action plans that include the NCD related activities were developed for all the community clinics[12] in September 2019. The project also conducted the CG trainings in the target areas prior to the CSG trainings. After organizing the ToTs for district and Upazila core teams in Cox's Bazar (December 2018) and Narsingdi (July 2019) districts, a two-day CG training was organized for the selected CG members from all the community clinics in the target areas. [Cox's Bazar (5 Upazilas): 770 participants, Narsingdi: 268 participants]

【3-5】Support Implementation of the CSG action plan in the pilot sites.

The core team and NGO field staff supported the CSGs to implement the CSG action plan through on-the-job training and technical support. Such support was provided to the CSGs throughout the project period. The awareness raising activities in the community by MHVs (see below), and CSG members in collaboration with union parishad, religious leaders, schoolteachers, etc. were planned and implemented through CSGs.

【3-6】Support resource mobilization for CSGs/health facilities and local government bodies.

Coordination of resource mobilization and support at community levels was managed by the CHCPs, CG/CSG members and Core team supervisors. Local government bodies (union/Upazila parishad) have been engaged for the material or other kinds of support to the CCs, monitoring of CCs and participation in the CC/CG/CSG activities, as shown in Table 23.

[11] Due to the COVID-19 pandemic and vaccine campaigns, the meeting were held less frequently for several months, but in March 2022 it took place in all six Upazilas.

[12] 130 CCs in 5 Upazilas in Cox's Bazar, 90 CCs in Narsingdi as of September 2019

Table 23: Cash or In-kind support from Union / Upazila Parishad (April 2021 – Mar. 2022)

Dist.	Upazila	No. of CC	Contents & (No. of CC received support)	Union / Upazila Parishad
CXB	Sadar	3	Aug. 2021: Oxygen cylinder (3) (3CC: Mohuripara, Sikdarpara & Khurolia CC)	Jilongja Union
	Ramu	7	July 2021: Oxygen Cylinder (2) (2CC: Monjirjil and Ukhiargona CC)	Kawarkhop Union
			Nov. 2021: oxygen cylinder (4) (4 CC: Uttar Fatekharkul CC, Purbodip Fatekharkul CC, Tachchipul CC & Badsha Nurjahan CC).	Fatekharkul Union
			Feb. 2022: Electricity connection (1 CC: Mazirkata CC)	Garzonia Union
	Chakaria	1	Oct. 2021: boundary wall (1CC: Pohorchada Sabuzpara CC)	Baroitali Union
NAR	Monohardi	13	July 2021: tube well (1), chair for the patient (11) (1 CC: Bondukshipara CC)	Charmandalia union
			Mar. 2022: financial support (BDT 1,000 per CC) for the COVI-19 vaccination campaign at the community clinic (12 CC)	All unions (12)
	Shibpur	39	May 2021: digital BP machine (5) (5CC)	Masimpur Union
			July 2021: ceiling fan (8), chair (7), tube well (3) (12CC. support from 3 Union Parishad)	Sadarchar, Aiyubpur & Joynogor union (3)
			Aug. 2021: refrigerator (9) (9CC)	Shibpur Upazila Parishad
			Oct. 2021: Table (4), chair (16) (4CC: Kudilaya CC, Noadia CC, Bongshirdia CC, Aliyabad CC)	Aiyubpur union
			Mar. 2022: financial support (BDT 1,000 per CC) for the COVI-19 vaccination campaign at the community clinic (9CC)	All unions (9)
	Polash	10	July 2021: chair for clients (18), revolving chair for a service provider (3), table (3), steal Almira (3) (3CC: Noakanda CC, Joypura CC, Rampur CC)	Gojaria union
			Oct. 2021: Earth raising work at CC courtyard (1CC: Rampur CC)	Gojaria union
			Nov. 2021: glucometer strip purchase (1CC: Noakanda CC)	Gojaria union
			Jan. 2022: Earth raising at CC courtyard (1CC: Joypura CC)	Gazaria union
			Mar. 2022: financial support (BDT 1,000 per CC) for the COVI-19 vaccination campaign at the community clinic (4CC)	All 4 unions, excluding municipality under Upazila)

Source: CARE monthly report (Feb. 2021 to Mar. 2022)

【3-7】Monitoring of CSG activities by the Core Team in the pilot sites.

The Core teams have been formed at the district and Upazila levels. The main objective of the core team approach is to strengthen the monitoring and supervision to improve the performance of the CCs and support the CGs and CSGs. This approach was developed and piloted in the Safe Motherhood Promotion Project Phase II (SMPP II). The core team consists of staff who are responsible for the monitoring and supervision of CCs at Upazila and district levels (such as medical officer-disease control, health inspector, assistant health inspector, sanitary inspector, and family planning inspector). External facilitators also play a role to strengthen the capacity of the core team.

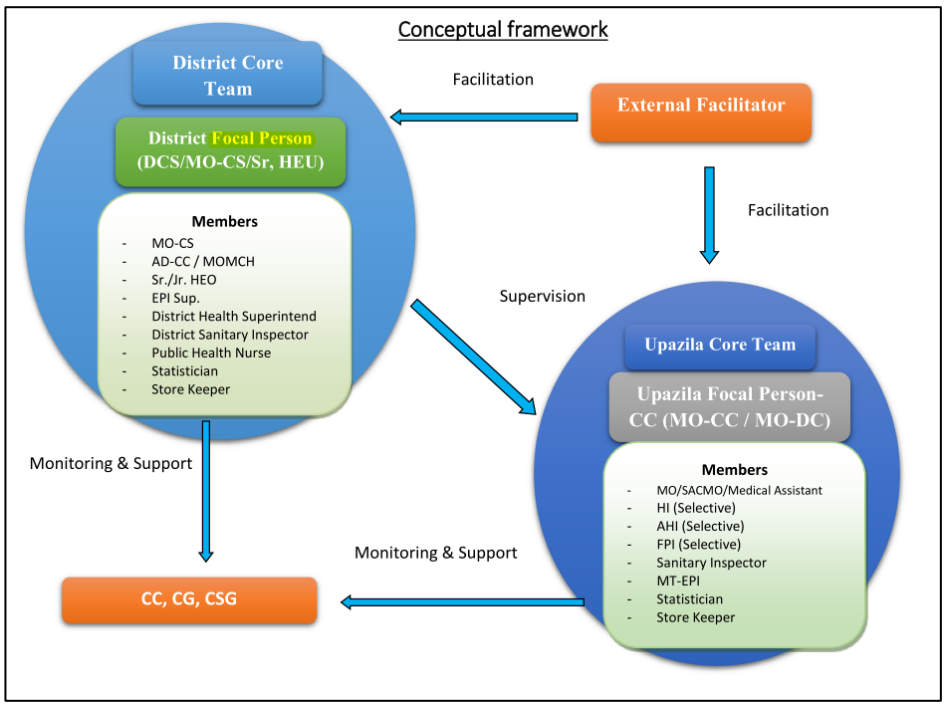


Figure 6: Conceptual framework of Core team strategy

< Abbreviations of members of core team in the figure above>

Abb.	Full form	Abb.	Full form
District		Upazila	
DCS	Deputy Civil Surgeon	MO-CC	Medical Officer Community Clinic
MO-CS	Medical Officer Civil Surgeon	MO-DC	Medical Officer Disease Control
HEO	Health Education Officer	SACMO	Sub-Assistant Community Medical Officer
AD-CC	Assistant Director Clinical Contraceptive (DGFP)	HI	Health Inspector
MO-MCH	Medical Officer Maternal and Child Health (DGFP)	AHI	Assistant Health Inspector
EPI Sup.	EPI Supervisor	FPI	Family Planning Inspector (DGFP)
DHS	District Health Superintendent	MT-EPI	Medical Technologist -EPI
DSI	District Sanitary Inspector		
PHN	Public Health Nurse		

The district and Upazila core teams were trained [Core team training: Cox's Bazar district (December 2018, 3 days): 43 participants; Narsingdi district (July 2019, 2 days): 33 participants] during the first half of the project. The core team action plans were developed in each Upazila and district. Based on the action plan, the core teams monitor and supervise the CC/CG/CSG activities in the field. The monthly core team meetings were held to share the monitoring findings, revise the action plan if necessary, and discuss measures for improvement. Refresher trainings for the district and Upazila Core team members were held in the project districts (March 2021 in Cox's Bazar, September 2021 in Narsingdi; Delay in Narsingdi was due to the COVID-19 pandemic). The Core team supervisors were monitoring and providing necessary support to CC/CG/CSG to implement the activities. However, the monitoring activities were hindered by the COVID-19 outbreak and other parallel programs of the government, such as the COVID-19 vaccination campaign.

Table 24: Core team refresher training, number of participants

District	Date	Participant
Narsingdi	30 September 2021	33 persons (district / Upazila core team supervisors)
Cox's Bazar	29 March 2021	36 persons (district / Upazila core team supervisors)

The core team review meetings were held in both districts in June 2022. The meetings were attended by high officials from CBHC and CCHST, where monitoring and supervision achievements by the core teams were shared and discussed. The following points were raised and discussed in the meeting: a) importance of CC/CG/CSG supervision visits was reaffirmed, b) the issue of transportation costs for supervision visits was raised, c) the request to provide snack budgets for CG/CSG meetings, d) insufficient supply of essential logistics related to NCD services, e) request for scaling up of NCD prevention activities in secondary schools, and f) request for scaling up of NCD screening services in antenatal check-ups at union-level facilities under DGFP. As a whole, the participants shared a positive and favorable attitude towards the core team strategy and its implementation.

Table 25: Core team review meetings, number of participants

District	Date	Participant
Narsingdi	7 June 2022	26 persons (CBHC, district / Upazila officers and core team supervisors, Upazila officer from DGFP, district / Upazila officers in the education sector)
Cox's Bazar	15 June 2022	32 persons (CBHC, CCHST, district / Upazila officers and core team supervisors, district / Upazila officer from DGFP, and district / Upazila officers in the education sector)

【3-8】Establish the CSG monitoring and support mechanism through Core Teams.

District/Upazila core teams have been established and they are monitoring the CC/CG/CSG

activities in the field. Advocacy for the national adoption of the Core team approach by CBHC was undertaken by the partner NGO, CARE Bangladesh.

Government officials from the CCHST and CBHC who are responsible for the management of the community clinics participated in core team training and field visits to exchange views with the officials at the Civil Surgeon Offices, Upazila Health Complex and core team supervisors in the field. The effectiveness and challenges of implementing the core team strategy [such as the increased number of supervision visits including participation in CG/CSG meetings, information sharing and feedback on supervision visits, and travel costs for supervision visits] were shared. Many stakeholders have positive opinions about the strengthening of community clinics, CGs and CSGs by the core team through the implementation of the core team strategy.

Furthermore, CBHC has developed a training manual for the training of CC supervisors (first line supervisors) (2022). In the document, the core team strategy is incorporated as a good practice to activate and support the CC/CG/CSGs.

Other activities

1) MHV

In 2019, CBHC introduced the Multipurpose Health Volunteers (MHVs) on a pilot basis in 19 Upazilas (106 Upazilas have the MHVs as of March 2022). MHVs are a new cadre of voluntary service providers in the community. The MHVs are selected from the community by a selection committee. They receive an honorarium for providing services defined in the protocol. The initiative has been taken to use the digital platform, especially for data collection, task reporting and monitoring using personal smartphones. In March 2019, a local consultant hired by the project developed the MHV training package and supported the conduction of training for the master trainers at the national level. The MHV trainings were then rolled out in a cascade manner and were completed for initially selected 19 Upazilas by June 2019.

The trained MHVs are collecting data through household visits in their assigned areas and conducting awareness-raising activities. The MHV program has been introduced in all the six projects Upazilas. The Upazila core teams support and monitor all the community level activities, such as MHV training and their activities, holding meetings with MHVs, CHCPs, HAs and FWAs, and participating in CG/CSG meetings. While HAs and FWAs were very busy with the COVID-19 related activities, MHVs played an important role in raising awareness of the community people.

2) IEC material

The needs assessment of NCD related IEC materials at CCs was conducted in 2021. It was found that the posters and flipcharts were available at the CCs, but there was no leaflet for general people (at-risk population of NCDs, such as 40 years and above). There was also a demand from the field

for the IEC materials.

The project has printed some government-approved NCD-related IEC materials (posters and leaflets) in order to improve community awareness on NCD prevention. The posters were hung in the CCs and public places, such as local markets, hospitals, CCs, GO/NGO offices, schools, and bus stands. union parishad and others (October 2021). The leaflets were used in the health education sessions during household visits by the CHWs and health volunteers.

Table 26: BCC activity on NCD prevention & control: Number printed

	Narsingdi	Cox's Bazar	Total
1. Poster / leaflet on hypertension	1,800	1,600	3,400
	286,000	313,000	599,000
2. Poster / leaflet on Diabetes	1,800	1,600	3,400
	286,000	313,000	599,000
3. Poster on promoting a balanced diet and physical activity	1,500	1,550	3,050

The Family Health Knowledge Book (FHKB) is an IEC booklet for the general public, developed by compiling the government-approved messages on NCDs, MCH, child immunization, nutrition, and COVID-19. The booklet was printed and distributed to the project areas with support from CBHC. In total, 90,000 copies of the booklet were printed and distributed to NCD and MCH related health facilities, and schools (March 2022). The distribution list is shown in table 27.

Table 27: Family Health Knowledge Book: Distribution list

Facility name (300 copies each)	Narsingdi	Cox's Bazar	Total
NCD corner (DH, UHC)	1,500 (2 DH & 3 UHC)	900 (1 DH & 2UHC)	
UH&FWC	7,500 (25 UH&FWC)	9,900 (33 UH&FWC)	
Community Clinic	27,600 (92 CC)	30,600 (102 CC)	
School / Madrasa	5,850 (9 schools/Madrasas)	5,850 (9 schools/Madrasas)	
Others (Workshops, etc.)			300
Total	42,450	47,250	90,000

3) Multisectoral approach for prevention and control of NCDs

For the prevention of NCDs through a multi-sectoral approach, NCDC has developed the "Multisectoral Action Plan for the Prevention and Control of Non-communicable Diseases (2018-2025)" in 2018. The National Multisectoral NCD Coordination Committee for the prevention and control of NCDs was set up in May 2018. NCDC plays the secretarial role and the committee meeting was held twice at the national level. The committee has not been very active after the transfer of a responsible staff from NCDC. The committee (Multisectoral NCD Coordination

Committee) has not yet been formed at the district and Upazila levels. However, some of the activities in the Action Plan, such as anti-smoking measures, school health, healthy cities and activities involving the Ministry of Religious Affairs, are being carried out in collaboration with relevant stakeholders.

As part of the multi-sectoral approach, the project provided orientation on NCD prevention to the school teachers, religious leaders and village doctors in the target areas. The UH&FPOs and core team members provided orientations on NCD prevention to the school teachers (headmasters), religious leaders and village doctors during January and February 2020. The orientation was provided to 95 school headmasters, 150 Muslim religious leaders and 18 village doctors in Cox's Bazar and Narsingdi utilizing the existing monthly meetings. The religious leaders and village doctors who received orientation are delivering the NCD prevention messages to the community. The core team members conducted sessions on NCD prevention at five secondary schools (15 sessions, approximately 720 students participated). However, these activities could not be continued, since the schools remained closed during the COVID-19 pandemic (from March 2020 to February 2022).

4) Promotion of NCD prevention through secondary schools

Awareness raising and community mobilization for NCD prevention and control at the communities through a multisectoral approach is one of the project activities under Output 3. In order to improve community awareness, the project decided to introduce a provision of providing NCD related information at the secondary schools in the project areas. To implement this activity, the project organized advocacy meetings at the national and district levels, and trained the school teachers. The training materials (presentations and flipchart) have been developed based on the WHO PEN training module and NCD management model for community health workers. The project closely worked with the CBHC and the education department to implement and monitor the activities.

The activities included in the school health program are; (1) national level advocacy workshops, (2) district level advocacy workshops and (3) training for the secondary school teachers. The school teachers, during the training, developed an ‘action plan' for health education for students. The teachers were providing health education to the students in the respective schools, based on the plan.

Table 28: Workshops and trainings on "promotion of NCD prevention through secondary schools", number of participants

Title	Date	Participants
① Advocacy workshop at the national level	7 March 2022	21 persons (CBHC, CCHST[13], NCDC, MNC&AH[14], MIS, representatives of District health and education authority, CARE Bangladesh)
② Advocacy workshop at the district level	20 March 2022 (Narsingdi) 23 March 2022 (Cox's Bazar)	Narsingdi: 31 persons Cox's Bazar: 35 persons (Representatives of district/Upazila health and education authority, head teachers of selected schools, principals of selected madrasas, School/Madrasa Management Committee Chairmen/presidents of selected schools)
③Training of Teachers 1 day training 2 batches per district	11 & 12 May, 2022 (Narsingdi) 22 & 23 May 2022 (Cox's Bazar)	Narsingdi: 56 persons (Teachers: 43 persons, others: 13 persons) Cox's Bazar: 52 persons (Teachers: 45 persons, others: 7 persons) *Others: representatives of district/Upazila health and education authority, academic supervisors, etc.
④ NCD prevention session for secondary school students	May and June 2022	Narsingdi: 10 sessions (Boys: 470 students, girls: 671 students) Cox's Bazar: 61 sessions (Boys: 1,907 students, girls: 3,090 students) Total: 70 session, 6,138 students

【3-9】 Facilitate mobilization of community activities in Dhaka city

(1) Government Outdoor Dispensary: GOD Guideline:

The final approval review of the GOD guideline was held on May 29, 2022. The review meeting was attended by about 30 officials and was led by the Additional Secretary (Planning), Health Services Division, MOHFW. This guideline has been revised about 10 times (two times under the current project director) so far with the Upazila Health Care Division, responsible for the activity. In the review meeting, the guideline was reviewed vividly page by page and finalized. This guideline will serve as the guideline for all the GODs in Bangladesh, though it was first developed for 8 GODs under the DNCC. However, the guideline was finally signed (approved) by the ministry on 31st May 2022.

(2) Activities leading up to the completion of the project:

The activities include; (1) consultation with the Upazila Health Care Division to utilize the

[13] CCHST: Community Clinic Health Support Trust. CC is under management of CCHST after an enactment of "Community Clinic Health Assistance Trust Act 2018"（2018）.

[14] MNC&AH: Maternal, Neonatal, Child, and Adolescent Health Care

guidelines, such as the formation of committees, revision of the current operational plans, and (2) NCDs measures. Train health workers on the NCD management model at the eight GODs under the Dhaka North City Corporation.

(3) Urban Health Partners:

A number of development partners (DPs) are supporting the government to improve the urban health situation of the country. The main DPs supporting the government include UNICEF, Asian Development Bank (ADB), World Bank and USAID. Table 29 below shows their activities.

Table 29: Activities of the development partners in urban health

<table>
<tr><th>DP Name</th><th>Activity</th></tr>
<tr><td>UNICEF</td><td>UNICEF has been supporting the government to implement several urban health projects with the aim to improve the health situation of urban dwellers.
<table>
<tr><th>Name of Project</th><th>Interventions</th><th>Area</th><th>Duration</th></tr>
<tr><td>Strengthening Urban Health Systems for PHC for the Most Deprived Women & Children (GP model)</td><td>• Health systems are strengthened
• Innovative model
• Improved coverage
• Evidence of good practices</td><td>Gazipur City Corporation (CC), Dhaka North CC, Dhaka South CC, Narayanganj CC, Kurigram & Cox's Bazar Municipalities.</td><td>2019-23</td></tr>
<tr><td>Multisectoral response to Covid-19</td><td>Health: Improved readiness in health facilities for COVID-19 case management and resilient MNCAH service delivery at communities</td><td>Gazipur CC</td><td>July 2020-June 2021</td></tr>
<tr><td>Strengthening Urban Immunization in low performing CC</td><td>Individual tracking (Immunization); PHC Service Delivery Modeling; Strengthening urban HMIS, innovative approach for service delivery and demand generation</td><td>Sylhet CC, Narayanganj CC, Rangpur CC & Khulna CC</td><td>2020-23</td></tr>
<tr><td>Health System Support-3 GAVI</td><td>Support selected CC for revitalization immunization. innovative approach for service delivery and demand generation</td><td>Dhaka North CC, Dhaka South CC, Gazipur CC & Chittagong CC</td><td>2020-24</td></tr>
</table></td></tr>
<tr><td>ADB</td><td>Urban Primary Health Care Services Delivery Project (UPHCSDP-II) (2018-2023)
It covers 45 partnership areas in 11 city corporations and 15 selected municipalities. The ADB loan is financing for Civil works for urban PHC infrastructure, Equipment and furniture, Vehicles, Consulting services, PPP</td></tr>
</table>

	contracts, and Contingencies. This UPHCSDP aims to establish in each of the partnership areas (PA) to have at least 1 Comprehensive Reproductive Health Care Center (CRHCC) and 3 PHC Centers (PHCC) for each CRHCC. In the municipalities, there will have 2 PHCCs and 1 CRHCC in each partnership area. The project is financing the construction of 8 CRHCCs and 24 PHCCs into green clinics (with solar panel and solar water heater) and supporting their operation and maintenance (O&M), including the medical waste management. Total investment costs for civil works under UPHCSDP is about $15.65 million.
WB	**Bangladesh Urban Health, Nutrition and Population Project (Planed)** The target area is Chittagong 1. Improving urban health, especially in slum areas and providing primary health and nutrition services for the economically needy people 2. Improve environmental health in collaboration with City Corporations, HSD of MOHFW, and MOLGRDC (Ministry of Local Government, Rural Development and Co-operatives). 3. Conduct monitoring and evaluation
	•

1-3-5 Output 4

(1) Purpose: Good practices and lessons learnt on the Project are replicated

(2) Activities

Below are Output 4 activities

【4-1】Conduct the base-line, mid-line, and end-line survey of the Project
【4-2】Conduct the studies to identify good practices and lessons learnt generated from the Project and document them
【4-3】Reflect good practices, outcomes, and lessons learnt on the Project to national policies and strategies.

(3) Summary of Output 4 activities

From 2020 to early 2021, all the project activities were slowed down due to the spread of the coronavirus. Because of the spread of the disease, there were restrictions on the staff for attending the office and travel restrictions were imposed on the Japanese experts. The office activities were therefore shifted to remote operations. However, the project took the advantage of the situation when the infection rate was low and performed the activities as planned in collaboration with the government.

The end-line survey for the project was conducted in January 2022. The results of the endline survey including the recommendations were shared with the stakeholders in the PIC meeting. In addition, good practices emerged from the project were shared on the JICA homepage and Facebook.

(4) Achievement

Through the activities of Output 1 to 3, several strategies, training manuals, and guidelines for

Noncommunicable Diseases Prevention were developed in collaboration with the Government (see the results of Results 1-3). These will be part of the policies and strategies of the Non-Communicable Diseases Control program, which are shown below in chronological order.

- Implemented the Core Team Strategy through Care Bangladesh in 2018
- Revised CSG Training Manual with the addition of NCD management in 2018
- Developed Hypertension / Diabetes Protocol for Primary Health Care Level Medical Institutions in 2018
- Developed NCD Management Model Training Manual in 2019
- Developed NCD Management Model Implementation Guidelines in 2020
- Established the Working Group and supported to formulate the Hypertension / diabetes
- Protocol (2018) as a protocol of Secondary and Tertiary medical institutions
- Revised NCD Management Model: Training Manual for Doctors in 2021
- Revised NCD Management Model Training Module in 2021
- Participating in developing Urban Clinic: GOD (Government Outdoor Dispensary) Guideline in 2022

(5) Lessons learnt from activities

Due to the spread of the new coronavirus infection in 2020 and 2021, activities were restricted. Therefore, we could not share many good practices which were seen in the communities. Furthermore, we made a progress in the formulation of the framework for all the Outputs. As a lesson learnt for the future, we need to consider how to increase the number of viewers of JICA homepages on which our activities were introduced.

(6) Details of Activities of Output 4

Details of the activities conducted are described below.

【4-1】Conduct the baseline, midline, and end-line surveys for the project

(1) Baseline survey

The baseline survey was contracted out to BRAC University and was conducted from February to May 2018. The results of the baseline survey were disseminated in Bangkok in January 2019. The findings were also shared in the "International Symposium on Community Health Workshop in 2019" held in Dhaka in October 2019.

Summary findings of the baseline Survey:

The baseline survey was a cross-sectional study with mixed methods (both quantitative and qualitative methods). The main objective was to assess the prevalence of hypertension and diabetes as well as the prevalence of risk factors (lifestyle) among the adult population in the project sites. An overview of the findings is provided in Table 30.

Table 30: Baseline Survey Overview

Item	Substance
Target	Data were collected both from intervention and comparison areas. The intervention areas from where data were collected include: Sibpur Upazila of Narsingdi District; and Dhaka North City Corporation. Data collected from the comparison areas included: Kaliganj Upazila of Gazipur district; and Dhaka South City Corporation Data collection: Data were collected from randomly selected adults above the age of 30 years. The number of samples collected was: **Intervention areas (n=2,462):** • Shibpur Upazila of Narsingdi district: 1,266 • Dhaka North City Corporation: 1,196 **Comparison areas (n=2,468):** • Kaliganj Upazila of Gazipur district: 1,275 • Dhaka South City Corporation: 1,193
Quantitative survey	**Method:** Data were collected using a pre-tested questionnaire, which was developed based on the WHO-STEP survey. Data were collected to assess the: (1) Sociodemographic characteristics (2) Knowledge, attitudes and practices on NCD risk factors (unhealthy eating habits, tobacco use, lack of exercise, etc.) (3) Knowledge, attitude, and practice on hypertension and diabetes (4) Measurement of physical conditions (blood pressure, height, and weight). **Results:** 70.8% of the subjects did not consume enough fruits and vegetables (more than 5 servings per day) and 68.0% said they added salt, sauce, and other salts before and during meals at all times. In addition, 52.0% of men and 38.0% of women used tobacco (smokeless, smoking, both). In regards to physical activity and exercise, 68.7% said they did not have the habit of regular exercise, especially women. The prevalence of hypertension was 23.7% in men and 38.1% in women, while the prevalence of diabetes (self-reported) was 8.5% in men and 10.6% in women.
Qualitative investigations	**Method:** Data were collected through focus group discussions (FGD) to understand the NCD risk factors, adherence to medication, and treatment seeking behavior. The target group for the qualitative survey was the patients with hypertension and diabetes (n=60). **Results:** The factors/obstacles identified that influenced the adherence to medication for the management of NCDs were: lack of motivation and awareness, economic factors and physical access to pharmacies. Many participants stated that the use of private and other facilities is high.

(2) Midline Survey

The midline survey was not conducted due to the delays in community level interventions, the time required for the survey, and the COVID-19 situation.

(3) Endline Survey

The endline survey was conducted by the Heart Foundation (contracted out) from September 2021 to January 2022. Due to the COVID-19 pandemic, the scale of the survey was reduced (did not collect data from the comparison and urban areas). The survey results showed improvement in most of the indicators despite the Corona pandemic (see PDM indicators and the attached summary report). The key findings of the end-line survey are provided in the following table.

Table 31: Baseline, Endline Survey Comparison on the target population

	Endline Survey		Baseline Survey
	Narsingdi	Cox's Bazar	Intervention areas: Shibpur Upazila of Narsingdi district, and Dhaka North City Corporation Comparison areas：Kaliganji Upazila of Gazipur district, and Dhaka South City Corporation
Quantitative survey（questionnaire）			
Resident（Men and Women below 30 years old）	460 people（at Shibpur Upazila where the baseline survey was conducted）	Not to be conducted（as the baseline survey was not conducted）	4930 people
Qualitative survey			
Focus Group Discussion (FGD)	3 times（one time per Upazila）	3 times（one time per Upazila）	8 times（targeting a total of 60 patients with Diabetes / Hypertension）
Interview to medical service providers	10 people	10 people	Not to be conducted

Table 32: Summary findings of quantitative and qualitative methods of end-line survey

Quantitative survey:

<Overview>

The subjects were 461 adults aged 30 and above who lived in the same area as the baseline survey (covered by three community clinics in Sibpur Upazila). A two-stage random sampling method was adopted for the survey of the subjects. To select the study subjects, the study selected 475 households randomly from a list of 4506 households in the study areas. Data were collected from a total of 461 subjects through a questionnaire interview and physical measurement of BP, height and weight. The questionnaire (developed by adopting the PEN survey) that was used in the baseline survey was used in the endline survey. Data were collected on (1) Socio-demographic characteristics, (2) NCDs risk factors (unhealthy eating habits, tobacco use, lack of exercise)) Knowledge / attitude / practice, (3) Knowledge / attitude / practice regarding hypertension / diabetes, (4) Physical condition (blood pressure, height, weight) was evaluated.

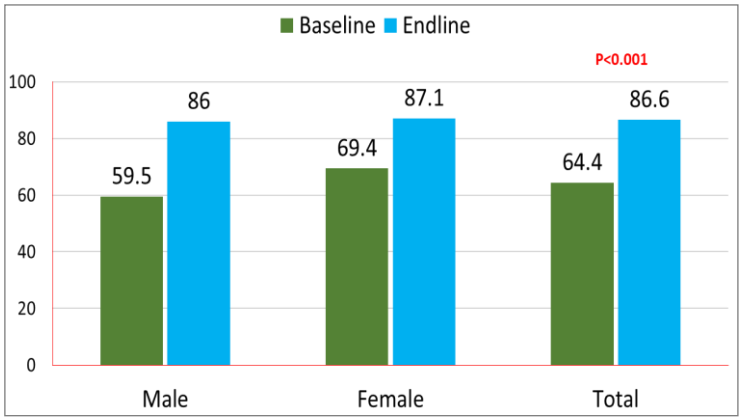
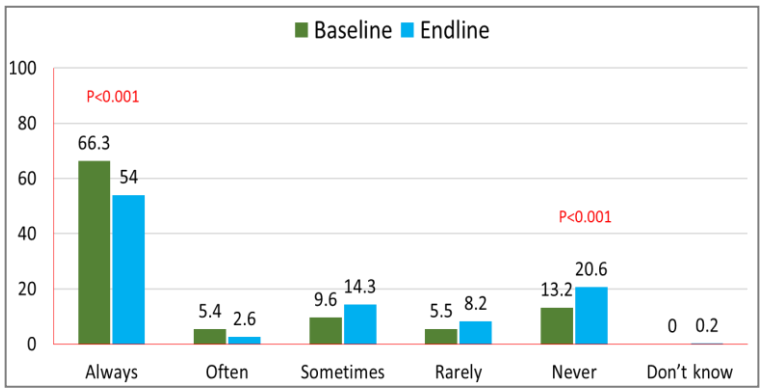
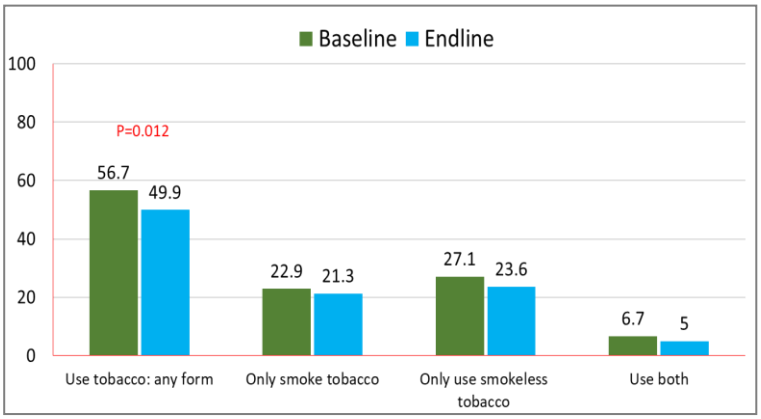
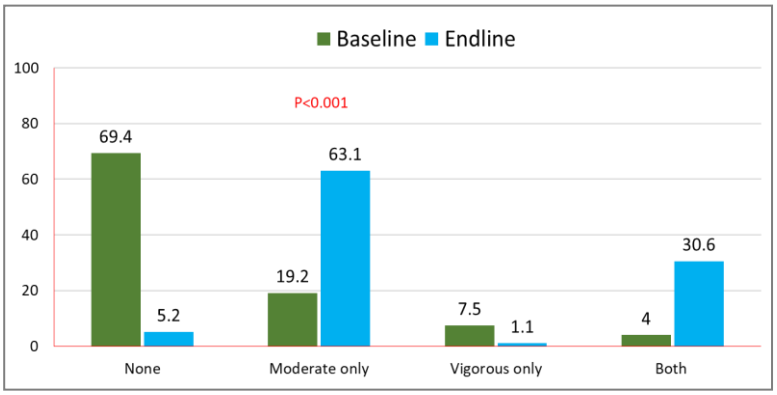
<table>
<tr><td colspan="2"><Result>
A comparison was made with the results of the baseline survey. Compared to the baseline survey conducted in 2018 there was an increase in knowledge about NCDs risk factors, a reduction in the prevalence of hypertension, and NCDs risk factors such as salt intake, tobacco use, and physical activity. Behavioral changes were also seen. In addition, among hypertensive and diabetic patients, the proportion of health-seeking behaviors has increased. However, there was no improvement in the intake of healthy diet (fruits and vegetables) and the use of smoked tobacco by women.</td></tr>
<tr><td>Socio-demographic characteristics</td><td>461 adults aged 30 and over (221 males and 240 females) participated in the survey. The average age of men and women was 47.7 and 46.1 years, respectively. The average number of years of schooling was 5.5 years. Most of the men were farmers (29.9%), followed by businessmen (22.6%), day laborers (15.8%), and many women were housewives (77.9%). The median monthly household income was 15,000 Bangladesh taka</td></tr>
<tr><td>Intake of fruits and vegetables</td><td>Approximately three-quarters (73.1%) of the surveyed subjects had inadequate intake of fruits and vegetables. In addition, 80.9% recognized that the intake of appropriate amounts of fruits and vegetables was very important, and 17.1% recognized that it was important. On the other hand, the percentage of those who did not meet the WHO recommended amount (5 servings or more per day) of fruits and vegetables was 86.8%, which was significantly higher than that of the baseline survey (64.4%) (64.4%; p <0.001).
 

Figure 6: Insufficient intake of fruits and vegetables (less than 5 servings a day)</td></tr>
<tr><td>Salt intake</td><td>88.9% said that excessive salt intake is harmful to one’s health and that excessive salt intake is a factor that causes increased blood pressure (54.4%), and edema (36.1%). However, 1.7% said that excessive salt intake was not harmful to their health. About two-thirds (64.9%) of the surveyed people are consuming an appropriate amount of salt. 54.0% of respondents answered that they constantly added extra salt, such as salt and sauce before and during meals, which was significantly lower than that</td></tr>
</table>

	of the baseline survey (66.3%) (p <0.001).  Figure 7: Salt Intake: How often salt is added to the diet
Tabaco Use	94.8% said they had heard about the harmful effects of tobacco, such as tobacco use causes lung disease (57.7%), cancer (54.9%), tuberculosis (43.5%), cough (41.9%), hypertension (23.3%) and heart disease (19.0%). The overall prevalence of tobacco use (smoke, smokeless, both) was 49.9% compared to 56.7% at the baseline (p=0.012). By gender, the tobacco use rate for men was 58.8%, down from the baseline survey results of 71.3%. The use of tobacco by women has decreased slightly compared to the baseline (41.7% vs. 42.6%). 40.5% of smoking tobacco users and 34.1% of the smokeless tobacco users said that they had tried to quit smoking in the last 12 months.  Figure 8. Tobacco utilization
Exercise	72.8% said that physical inactivity is harmful to their health, and inadequate physical activity is associated with weight gain (52.4%), diabetes (26.2%), and hypertension (24.7%). The study showed that 63.1% of the respondents did moderate physical activity regularly, which was only 19.2% at the baseline (p <0.001). The proportion who did both "intense" and "moderate" physical activity has increased from 4.0% at the baseline to 30.6% at the endline.

	 Figure 9: Physical activity / amount of exercise
Obesity and prevalence of hypertension / diabetes	a) Overweight [BMI25.0-29.9kg / m2) / Obesity (BMI ≧ 30kg / m2)]: 23.4% of the respondents were overweight, while 5.6% were obese. The prevalence of overweight and obesity by gender was 32.9% and 8.8% among females compared to 13.1% and 2.3% among males, respectively, showing a higher prevalence among females than males. Compared to baseline survey results, the proportion of overweight has increased from 29.3% to 35.5% and the proportion of obesity decreased from 12.2% to 12.0%. No significant difference was observed in either case. b) Hypertension (HBP ≧ 90 mmHg and / or SBP ≧ 140 mmHg): The prevalence of hypertension was 25.2% (17.6% for men and 32.1% for women), a decrease from the baseline survey (29.8%), though it was not statistically significant. 74.7% of the hypertensive patients received services from health facilities during the last one year. Of the hypertensive patients (n=95), 49.5% had their blood pressure controlled. The percentage of hypertensive women who received services from health facilities was 75.0%, which is a significant increase when compared with the baseline survey (60.5%; p <0.05). 70.9% of the respondents stated that had measured their blood pressure during the last 12 months. c) Diabetes: The prevalence of diabetes (self-reported) was 10.8% (8.1% for men and 13.3% for women), an increase from 7.5% at the baseline survey. 82.0% of diabetic patients received services from health facilities during the last 12 months. The service providers from where they received services include doctors (80.5%) and pharmacists (26.8%). 90.2% of patients were taking medication and 30.4% had their blood glucose checked during the last 12 months.
Qualitative research: Focus Group Discussions (FGD) were conducted on 120 hypertensive and diabetic patients enrolled in the targeted community clinics in Sibpur and Chakaria Upazilas. Information was	

collected to understand the (1) facilitators and inhibitors that influence behavioral changes like eating habits, exercise, and tobacco use, (2) facilitators and inhibitors that influence medication compliance (3) health-seeking behavior and the quality of NCDs services. Data were also collected through KII (key informant interview) from 20 health service providers at Sibpur Upazila Health Complex and Chakaria Upazila Health Complex on the same issues mentioned above. The survey showed similar responses from patients and health service providers who participated in the study. Advice from healthcare professionals and support from family members have been identified as the common facilitators, while lack of knowledge and awareness, and lack of motivation were the inhibitory factors that influence behavioral changes related to eating habits, exercise, and tobacco use. The lack of cooperation from the family was extracted as an obstacle. Similar factors were cited for compliance with medication, but it is noteworthy that free medical care for hypertension and diabetes (prescription of therapeutic drugs) at public health facilities was confirmed as a factor promoting compliance with medication. Physical access to medical services, as well as the availability of equipment and quality of services were influencing factors in selecting health facilities for services.	
Promoting and Inhibiting Factors Affecting Behavior Modifications Related to Eating Habits, Exercise, and Tobacco Use	a) Healthy eating habits: Homemade chapati, egg whites, milk, dal beans, fresh fruits, vegetables, etc. were recognized as healthy food for the prevention of hypertension and diabetes. On the other hand, foods like rice, sweets, sweet drinks, salt, snacks, soft drinks, red meat (beef), pumpkin, potatoes and fat were recognized as harmful to health. Most FGD participants said they were reviewing their eating habits after having NCDs and were careful about taking too much carbohydrates. They also reduced their intake of salt and were eating more fruits and vegetables. Advice from medical professionals and knowledge gained from patient notebooks were the promotive factors for behavior change related to eating habits, lack of knowledge and awareness, lack of motivation, etc. b) Tobacco use: almost all the participants reported that smoking and smokeless tobacco use are harmful to health and can cause cancer, hypertension, lung disease and others. Many patients stated that had quit smoking after being informed that it is harmful to health by health care providers. Some of the participants stated that they had quit smoking after a serious illness in the part. The obstacles to quitting smoking as cited by the participants were stress, lack of knowledge, and lack of support from family and society. Participants stated that proper counseling by doctors, awareness programs, anti-tobacco law enforcement, involvement of influential people, and family support can help in reducing the use of tobacco.

	c) Exercise: Participants answered that physical activity / exercise such as fast walking, running, swimming, cycling, freehand exercise (exercise without equipment), and farm work are effective in preventing and controlling NCDs. Many of the patients mentioned that they were doing regular physical exercise after the diagnosis of NCDs. Advice from health care workers and the support from their families were the promoting factors. On the other hand, lack of self-motivation, non-cooperation from family members, lack of enabling environment, lack of time, etc. were cited as the obstacles.
Promoting and impeding factors affecting treatment-seeking behavior and medication compliance	The surveyed respondents said they chose the nearest health care facility / provider for the care of NCDs. They also take services from pharmacies and village doctors. Some participants said they prefer private clinics and hospitals because public health facilities do not have adequate infrastructures such as waiting areas, toilets, and testing facilities. Long waiting times at public facilities were one of the important factors for seeking care from private hospitals. Regarding compliance with medication, individual awareness, decision-making ability, support from family members, and free medical care (prescription and drugs) were the promoting factors. On the other hand, financial inability, lack of awareness, frustration caused by the inability to improve the condition even after taking medication, unstable supply of free medicines in public facilities, and lack of family support were the obstacles identified by the participants.

【4-2】Conduct search to derive best practices and lessons learned from the project

The experience and lessons learnt from the project were shared on the following sites.

(1) JICA homepage

The project provided relevant information on all the major project activities such as training manual revision workshop for doctors at the primary health care level (held on June 8, 2021) and other activities on the JICA website.

(2) JICA Bangladesh Office FACEBOOK

We have uploaded information related to NCDs management model training, NCD corner equipment support, and other activities such as printing and distribution of BCC materials.

(3) JICA Governance Project JIGO NEWSLETTER

SHASTO project was involved with the JIGO newsletter, published by the JICA governance project, from June 2020. The objective was to introduce and disseminate good practices at the SHASTO project sites, especially the activities related to the community clinics, CH/CSG and local government activities. The newsletter is widely distributed to the related organizations of

the Ministry of Health and the Ministry of Local Government. The followings are some of the good practices that were published in the JIGO newsletter after 2021.

- January 2021 “Contribution to Community Clinic by Kurshukuru Union Council, Sadar Upazila, Cox's Bazar District,” Collaboration between Union Council and Community Clinic (Community Clinic Renovation Work Cost Support, Awareness-raising Activities) Participation) was posted. Introduced that the services of community clinics have improved in collaboration with the Union Parishad, which has increased the utilization of services by the community for NCD services.
- February 2021 “Union Parishad Efforts to Improve the Service Quality of Community Clinics”. At the Fatehpur Union, Ramu Upazila, Cox's Bazar District, the community was encouraged by CG / CSG to reach the Union Parishad. As a result, it became possible to improve the access road of the clinic and the supply of safe water.
- Support for the implementation of the NCD management model in the May 2021 “Implementation of the NCD Management Model at Monohordi Upazila Health Complex in Narsingdi District”. There was an improvement in services at the NCD corner after the project supported the maintenance of the NCD corner, and capacity building of health personnel.
- June 2021 “Good practices of the Kenduab Community Clinic” A community health care worker at the Polash Community Clinic in Narsingdi Invited the Chairman of the Union Parishad to visit the clinic. During the visit, the staff presented obstacles to improve service. As a result, the Chairman provided the necessary equipment to the CC for smooth service delivery.
- July 2021 “Campaign to Promote Behavior Change: COVID-19 Preventive Awareness” This case study showed how the awareness activities were carried out through the distribution of posters and leaflets related to COVID prevention.
- March 2022, “Efforts to Encourage Local Government Officers to Participate in Community Clinic Activities”. The community clinic, which operates closest to the community, provides health promotion, disease prevention, maternal and child health and family planning services to the community. In February 2022, using the NCD training manual, a master trainer training for local government officials was conducted for the purpose of further promoting NCD prevention in the region.

(4) Contribution to Co-Creation 2, a booklet of the JICA Governance Project:

The project facilitated cooperation between Upazila Health Complex and community clinics in the project area and local government agencies.

- “Collaboration with the JICA Governance Project at Chakaria Upazila Health Complex” and
- "Distribution of “Matir Bank” to improve access to NCDs services (hypertension and diabetic patients) at the Gajirdail Community Clinic"

【4-3】Reflect the confirmed best practices, achievements and lessons of the project in national policies and strategies

Until now, it has not been confirmed that the results and lessons learned will be reflected in national policies and strategies, but at the district level, some measures have been taken to improve the NCD drug distribution system through CCs. In addition, the project has proposed some recommendations to the government (Planning department of MOHFW) in the last PIC meeting in June 2022 for future programming.

1-4 Additional activities (including those already described in the activities for each result)

1) Additional activities associated with the spread of new coronavirus infections

・Ddistribution of personal protective equipment (PPE): As a countermeasure against the new coronavirus disease, the project distributed PPE to medical facilities in the targeted project areas in two phases. Table 33 shows the PPEs provided in the first phase (May-June 2020). With the request of NCDC, the project provided 1500 medical gowns in the second term (August 2020) to 32 health facilities including the project areas.

Table 33: Breakdown of distribution of Phase 1 Personal Protective Equipment (PPE)

Name of Facility	Number of Facility	Mask	Gown	Gloves	Goggles	Antiseptic solution
Narsingdi District						
100 Beds District Hospital	1	200	200	200	150	150
Sadar District Hospital	1	200	200	200	150	150
Monohardi Upazila Health Complex	1	200	200	200	150	150
Shibpur Upazila Health Complex	1	200	200	200	150	150
Polash Upazila Health Complex	1	200	200	200	150	150
Cox's Bazar District						
Sadar District Hospital	1	500	500	450	500	450
Sadar Upazila Community Clinic	29	0	0	0	0	0
Chakaria Upazila Health Complex	1	250	250	150	250	150
Ramu Upazila Health Complex	1	250	250	150	250	150

• Development of guidebooks and educational tools related to "COVID-19 & Diabetes": In response to the spread of the new coronavirus in 2020, many hospitals limit the number of

consultations at the health facilities to prevent spread of the disease. The Government also imposed a lockdown which restricted the movement of the general people. Both these factors reduced accessibility to health care facilities. The NCD patients, who require regular care and treatment found it difficult to get medicines (especially free of cost) and visit the care providers. Studies show that there is an aggravation of diabetes and hypertension if the person is infected with coronavirus disease.

The project in collaboration with NCDC and the Diabetic Association of Bangladesh developed a guidebook named "COVID-19 and Diabetes" for the care providers, NCD patients and their family members. The project also developed a video on COVID-19 and diabetes. The guidebook and the educational materials were distributed to the districts, Upazilas and medical institutions and broadcasted through television, radio, social media and newspapers.

• Implementation of "COVID-19 and Diabetes" training (repost: see Result 1)

• COVID-19 awareness campaign for the community: The epidemic of COVID was coming at time intervals. There was an increase in the number of infections in March 2021. To generate community awareness, the project carried out awareness raising activities at the project sites for the prevention of COVID-19. The community awareness activities were done with the partner organization (CARE) and in collaboration with the government. Even though there were restrictions of the movements of staff, the project staff worked voluntarily and participated in the community awareness campaign. To improve community awareness, the project printed and distributed posters and leaflets and provided COVID prevention messages through miking directly in the community. The dissemination of messages through miking was held three times at each project site (June to August 2021).

Table 34: COVID-19 infection prevention, number of distributions of IEC tools and number of miking

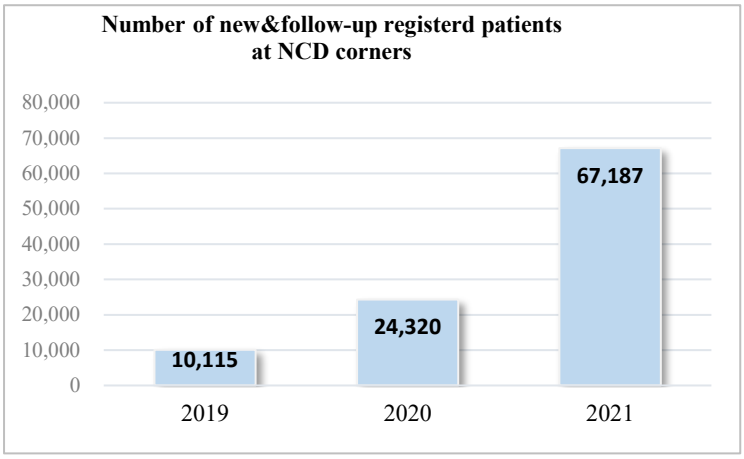
	Poster	Flyer	Vinyl Poster	Street promotion (Mike)
	Number of Sheets	Number of Sheets	Number of Sheets	Number of times
Narsingdi District	800	41,000	150	52
Cox's Bazar District	600	30,500	150	98
Total	1,400	71,500	300	150

2. Project Achievement

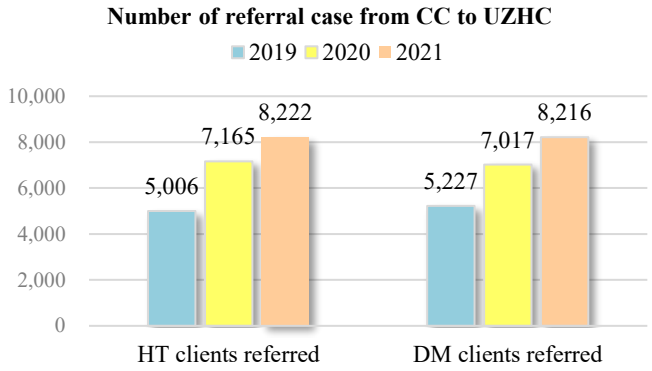
2-1 PDM Outputs and indicators

According to PDM, Table 35 shows the achievements of output indicators.

Table 35: Achievement of Output Indicators

<table>
<tr><th>Indicator</th><th>Achievement</th></tr>
<tr><td>Indicator 1:
Increase in the number of HT and DM patients registered in the pilot sites</td><td>1. Achievement degree: High
 

※Base-line: July 2017: N.D.
2. Considerations and Challenges
Following the project interventions, there is an increase in the number of screenings at the NCD corners, at the community clinics and Upazila hospitals.
Although an e-Data system that accumulates patient information has been introduced, it is necessary to further strengthen the operation of the data collection system (confirmation of input method, use of data, etc.) in the future.</td></tr>
<tr><td>Indicator 2:
The proportion of health facilities (district hospital: DH, Upazila Hospital: UPZH and community clinic: CC) comply with the standardized HT and DM Protocol in pilot sites (Target: District Hospital 3, Upazila Hospital 5, Community Clinics: 194, GOD in Dhaka North 8)</td><td>1. Achievement Degree: High
<table><tr><th>2017</th><th>2022</th></tr><tr><td>District Hospital : 0%
Upazila Hospital : 0%
Community Clinic : 0%
Dhaka North: 0%</td><td>District Hospital : 100%
Upazila Hospital : 1000%
Community Clinic : 100%)
Dhaka North: 100%</td></tr></table>2. Considerations and Challenges
In 2017, the NCD management model was developed and introduced as a nationwide program. Healthcare facilities in the project target areas also implemented the national NCD management model. At the end of the project, it was 100% in place, and the consultation process was continuing. It is necessary to further strengthen the MIS system (in particular, the e-Data and monitoring and supervision).</td></tr>
<tr><td>Indicator 3:
Increase in the number of referrals</td><td>1. Achievement degree: Slightly High</td></tr>
</table>

NCD cases from CC to UZHC in the pilot sites	 ※n=194 CCs, Base-line:July 2017 :N.D. **2. Considerations and Challenges** As the number of screenings increased each year, the number of referrals to Upazila hospitals for diagnosis and treatment has also increased. Referral letters are supposed to be issued from community clinics to Upazila hospitals. Clients who have been issued referrals often thought that the referral letter was advice. Most of them landed in a private hospital, rather than to the UHC. However, even though residents sought treatment in private hospitals, it is acceptable that NCD detection and treatment are completed for the patients. The NCDC revised the referral system (including the form) in March 2022 for the community clinics. There is a need to strengthen the follow-up system to trace the patients once they are referred from the CCs.
Indicator 4: % of hospitals (DH, UZHC) practicing the PDCA/KAIZEN approach in the pilot sites (Narsingdi and Cox' Bazar District) (0, 2017 ➔ 70% 2022)	**1. Achievement degree: High** 2017: DH: 0%, UZHC: 0% 2022(achieved in all facilities): DH : 100%, UZHC : 100% **2. Considerations and Challenges** 5S training for target facilities was introduced at the time of the previous project (SMPP), and in the current project, KAIZEN's third-country training was conducted in the early stages. But due to the COVID-19 pandemic, activities were suspended for about three years. In response to this, the project first reviewed the 5S situation at the target facilities and developed a plan to revitalize the Quality Improvement activities at the facilities. Refresher training on 5S and training on PDCA was undertaken for the hospital staff of all the targeted facilities. The QI committees were also activated to monitor the activities at the hospitals. To improve the quality of services, the facilities need continuous monitoring and supervision by the local and district level QICs with the use of a checklist developed by the Qis.

Indicator 5:
Increase in the percentage of people knowing NCD risk factors in the pilot area

1. Achievement Degree: High

Knowledge on risk factors for Hypertension (%)

Risk factors	Base-line (%)	End-line (%)	P-value
Inadequate fruit and vegetable intake	9.5	13.4	0.049
High salt intake	22.3	39.8	<0.001
Tobacco use	11.1	16.7	0.002
Inadequate physical activity	19.2	9.5	<0.001
Excessive body weight	10.3	13.8	0.049
Aging	0.3	4.5	<0.001
Family history of hypertension	1.2	6.8	<0.001
Stress/anxiety	46.3	59.5	<0.001

Knowledge on risk factors for Diabetes (%)

Risk factors	Base-line (%)	End-line (%)	P-value
Inadequate fruit and vegetable intake	20.1	11.0	<0.001
High salt intake	46.8	60.0	<0.001
Inadequate physical activity	31.5	11.2	<0.001
Hypertension	2.0	4.6	0.004
Excessive body weight	12.3	19.7	<0.001
Family history of hypertension	6.0	18.1	<0.001
Stress/anxiety	4.3	14.9	<0.001

2. Considerations and Challenges

There was an improvement in knowledge of the major risk factors for hypertension and diabetes in all areas except knowledge about the relationship between diabetes and hypertension and physical inactivity, and diabetes and vegetable and fruit intake.

These are related to indicator 5 of Project Purpose. One of the reasons for the improvement of knowledge is that the communication of information such as health educational activities has progressed smoothly by revitalizing the community groups (CG) involved in the community clinics.

Improvement quality of counseling at the time of screening and treatment for NCDs may further improve the knowledge and awareness of the community. There is an agreement with the NCDC that the counseling part will be strengthened in the near future.

Additionally, COVID-19 may have a negative impact on all the indicators.

Indicator 6： Cases of collaboration for improving health services between health facilities and local government bodies (case study)	**1. Achievement degree; Moderate** **Some of the Cases** • In the JIGO Newsletter of January 2021 “A Community Clinic’s efforts in collaboration with the Local Government in Sadar Upazila, Cox’s Bazar” was published. Since the Community Clinic is the closest health facility to residents, they collaborated with the LG to improve screening for NCDs. • In the JIGO Newsletter of February 2021 “The Quality of Services at the Community Clinic is increasing with the help of Union Parishad” was published. This was the report on a Community Clinic at Cox’s Bazar where many women and children visit every day. The local government (Union Parishad) improved the approach road to the clinic and arranged for a safe water supply for the clients. • COVID-19 awareness-raising activities (e.g., miking, distribution of posters and leaflets) were conducted in collaboration with local government bodies. The distribution plan of the IEC materials and monitoring was done jointly with the local government. **2. Considerations and challenges** For the self-sustainability of the CCs, CG and CSG can play a great role by mobilizing resources (e.g. fundraising) from the community. Some of the CCs could successfully mobilize funds, and this has happened where some of the CG and CSG members have the commitment and leadership capacity.

2-2 Project Purpose and indicators

Table 36: Achievement on Indicator for Project Purposes

Project Purpose: The Non-Communicable Diseases (NCD) and Maternal Health (MN) services are improved in an integrated manner

Indicator	Achievement
Indicator 1: The number of Upazila Health Complex (UZHC) using standardized hypertension (HT) and Diabetes Melilites (DM) protocol	**1. Achievement degree: High** At the beginning of the project, it was zero. But the project could introduce the NCD management model at 274 Upazilas (out of 492) in collaboration with NCDC. The achievement has greatly exceeded the target (200) at the end of the project 2022. This is equivalent to about 55% of the 492 facilities nationwide.

Benchmark	2017	2022
0 facility in 2017 (before adopting NCD management model) ➔ 200 facilities, 2022	0	274 UZHC adopted (of 492 nationwide） Project pilot area: 100% (3 DH and 8 UZHC) (and 8 GOD: Government Outdoor Dispensary in Dhaka North）

2. Considerations and challenges:

Although the project's indicators are met, the NCDC will work with other partners to implement the system at all UZHC nationwide according to their Operational Plan and will continue to ensure the quality of service in the future.

Indicator 2:
The proportion of the target population (over 30 years old) received annual screening (# of clients who received NCD screening in the past one year/ # of the target population in the target areas (the areas where baseline data are collected)

1. Achievement degree: High

Baseline	Endline
There was no target or baseline data for this indicator. (There is no reference value because the NCDC and the District Health Information System (DHIS2) of the MHFW are not collecting relevant data).	Narsingdi: Percentage of people screened for high blood pressure: 70.9% Percentage of people screened for diabetes: 30.4%

2. Considerations and Challenges:

According to the Endline survey findings, the proportion of people screened for high blood pressure was high, but the proportion of people who were screened for diabetes was low.

This may be attributed to the fact that a) instrument for checking the blood sugar was not available at the pharmacies (form where people can measure their BP free of cost), b) blood sugar measurement is not free in private sectors, and c) there may have considerable fear for giving blood for the test. The other reason may be an inconsistent supply of blood sugar measurement strips at the CCs and other health facilities.

The challenge is to create community awareness for the regular checkup of blood sugar levels and ensure the supply of logistics to the health facilities including the CCs for the measurement of blood sugar levels.

Indicator 3:
Increase in the number of HT and DM patients receiving appropriate treatment and care regularly for at least the past 6 months in the target area

1. Achievement degree: High

The proportion of patients treated in the past six months has increased about three times in the endline survey compared to the baseline.

Baseline Survey (Survey targets Narsingdi province only)	Endline Survey
Hypertensive patients Narsingdi: 24.6% Diabetics Narsingdi: 10%	Hypertensive patients Narsingdi: 74.7% Diabetics Narsingdi: 82%

2. Considerations and challenges:

The number of people receiving services has increased due to the introduction of the NCD management model, and community awareness activities for the prevention of NCDs. The Endline survey confirms that the interventions were effective. Improvement of quality of counseling, and ensuring the supply of drugs along with the continued community education may further improve behaviors for healthcare seeking.

Indicator 4:
Increase in the number of registered pregnant/postpartum women with NCDs who are under NCD treatment in the target areas

1. Achievement degree: High

The indicator is not available in the NCDC and the District Health Information System (DHIS2) of the MHFW.

After the start of the project intervention to cumulative total in January 2022
Narsingdi (cumulative total): 1682
2018: 0 (data collection not started yet)
2019: 0 (not started yet)
2020: 105 (gradually started)
2021: 1185
2022: 392 (as of January 2022)

2. Considerations and Challenges:

The NCD management model was based on the concept of a team approach. The model ensured collaboration between the doctors and nurses, community clinics and NCD corners at the Upazila level, and referral from the obstetrics/gynecology department to NCD corner.

To further improve the indicator, cooperation between DGHS and DGFP is needed especially at the Upazila and below levels. This will help in establishing a system to provide integrated NCD services to pregnant and postpartum women with hypertension and diabetes.

Indicator 5:
Decrease in prevalence of risk factors (tobacco use, unhealthy diet, low physical activity) in the target area

1. Achievement degree: High

A survey was done for risk factors of NCDs.

Risk Factors	Baseline (%)	Endline (%)	P-value	Achievement Status
Tobacco use: using either smoke or smokeless	56.7	↘49.9	<0.012	Achieved
Fruit and vegetable intake: Insufficient intake of fewer than 5 servings per day (1 serving is equivalent to 77g-80g of vegetables and 80g of fruit)	64.4	↗86.6	<0.001	Not achieved
Salt intake: Always add salt to a plate	66.3	↘54.0	<0.001	Achieved
No exercise habits	69.4	↘5.2	<0.001	Achieved
Exercise habits: Have moderate exercise habits	19.2	↗63.1	<0.001	Achieved

2. Considerations and Challenges

The prevalence of all the risk factors (tobacco use, salt intake, physical activity and exercise) has improved as indicated by the endline survey except for adequate fruit and vegetable intake. The reasons for inadequate

	fruit and vegetable intake are not clear. However, the probable reasons may be (further studies are needed to confirm them): a) high price of fruits and vegetables; b) use of preservatives may have a negative impact on the use of fruits and vegetables available in the market, and c) decrease in family income due to COVID pandemic (due to lack of jobs). There is a significant reduction in salt intake and improvement in exercise habits after the interventions (especially the community awareness programs) compared to the baseline data. This is thought to be related to the improvement of knowledge on NCD risk factors. Though there was a significant improvement in doing physical exercise, the proportion of the residents who knew about the relationship between physical exercise and hypertension and diabetes has decreased (performance index 5). Although the information on risk factors is conveyed at the time of health education and counseling, it is assumed that there were situations when sufficient time was not available to explain the relationship between risk factors and NCDs. It is recommended to review and update the counseling guideline, train the staff appropriately and closely monitor the service delivery.
Indicator 6: Replicated good practices and lessons learnt from the Project	**1. Achieved degree: High** There are several good practices that were replicated in other target areas: • The lessons learned from the first NCD management model training at the SHASTO project sites conducted in May 2019, have been utilized when the NCD management model was expanded to other areas. • The NCD management model implementation guidelines are being utilized for the expansion of the NCD management model in other areas. • IEC materials (flipcharts and video clips) developed with the NCDC and BADAS, have been distributed to other areas for awareness-raising activities and counseling. • The NCD drug refilling system at CCs developed in Shibpur Upazila has been expanded to other four Upazilas, and NCDC is planning further expansion in the uncovered areas. • The CG/CSG training manual and CC referral guidelines developed by the CBHC included NCD-related information and referral criteria for hypertension and diabetes. They are being used in trainings and other activities nationwide **2. Considerations and Challenges** The development and implementation of the NCD management model and community-based prevention activities are widely covered nationwide. In particular, since the NCD management model is uniformly covered nationwide, it is highly sustainable. The strengthening measures as proposed by the project (such as strengthening the NCD drug supply system, strengthening the maternity referral system, etc.) were adopted by NCDC and it is expected that the good practices will be expanded to other facilities.

3. History of PDM Modification

The PDM ver-0 was modified (to ver-1.0) based on the detailed planning survey report conducted in December 2017 and was agreed by the MOHFW. The project planned and implemented the activities based on ver-1.0 of the PDM. The comparison of PDM ver.0 and PDM ver.1.0 (revised version) is shown below:

Table 37: Modification from PDM ver. 0 to PDM ver. 1.0

	PDM ver.0 (April 2017)	PDM ver.1.0 (December 2017)
Title of the Project	The Project for **Quality Improvement of Health Care Service Delivery in Bangladesh**	The Project for **Strengthening Health Systems Through Organizing Communities**
Implementing Agency	OP-NCDC, MNCAH, CBHC, HSM, L&HEP(DGHS), **MCRAH (DGFP)& HEF(Ministry)**	OP-**SWPMM** & HEF (Ministry) and NCDC, CBHC, HSM, L&HEP (DGHS)
Target Group	MOHFW officers/staff **in the target areas, target** health facilities/hospitals, and people in the target areas	MOHFW officers/staff, health facilities/hospitals, and people **in the** Project Site
Project sites	A whole country with Narsingdi and another one district as pilot sites	A whole country with **Dhaka city**, Narsingdi and Cox's Bazar districts as pilot sites
Objective Verifiable indicators for Overall Goal	1) **Prevalence** rate of hypertension (over 20 years old, male 19%, female 32%, 2011→ No change, 2022) 2) Maternal Mortality Ratio (**176, 2015**→ 121, 2022→70,2030)	1) **National** Prevalence rate of hypertension (over 20 years old, male 19%, female 32%, 2011→ No change, 2022) 2) Maternal Mortality Ratio (**196, 2016**→ 121, 2022)
Means of Verification for Overall Goal	1) Government statistics 2) **Project survey**	1) Government statistics 2) **National survey/study**
Objective Verifiable indicators for Project Purpose	1) **Increase in the number of people who received NCD screening services in the targeted areas.** 2) **Increase in the number of hypertensive and Diabetes Mellitus (DM) patients registered in the targeted areas.** 3) Increase in the number of hypertensive and DM patients continue treatment in the targeted areas. 4) Increase in the number of	1) The number of Upazila Health Complex (UZHC) using the **standardized hypertension (HT) and Diabetes Mellitus (DM) protocol. (0, 2017→ 200, 2022)** 2) **The proportion of target population (over 30 years old) received annual screening (# of clients who received NCD screening in the past one year/# of target population) in the target areas. (The areas where baseline data are collected)** 3) Increase in the number of HT and DM patients receiving appropriate **treatment and care regularly for at least the past 6 months** in the target areas. 4) Increase in the number of registered pregnant/ postpartum

	pregnant/ **postpartum women** with NCDs who are under NCD treatment in the targeted areas. 5) Increase in the number of health facilities using the standardized **NCD protocol.** 6) **Increase in the proportion of people knowing NCD** risk factors in the targeted areas. 7) Replicated good practices and lessons learnt from the Project.	women with NCDs who are under NCD treatment in the target areas. 5) **Decrease in prevalence** of risk factors (tobacco use, unhealthy diet, low physical activity) in the targeted areas. 6) Replicated good practices and lessons learnt from the Project.
Means of Verification for Project Purpose	1) Government statistics 2) Project survey **(base-line/end-line)**	1) Government statistics 2) Project baseline/**mid-line**/end-line survey 3) **Project monitoring data and report**
Outputs	1. Integrated NCDs (cardiovascular diseases (CVD) and Diabetes Mellitus (DM)) and Maternal Health services are delivered **in the targeted areas.** 2. Hospital management is strengthened for service quality improvement 3. NCD prevention activities are promoted **in the targeted areas** through working with community support groups. 4. Good practices and lessons learnt from the Project are replicated.	1. Integrated NCDs (cardiovascular diseases (CVD) and Diabetes Mellitus (DM)) and Maternal Health (MH) services are delivered **in the pilot sites**. 2. Hospital management is strengthened for service quality improvement. 3. NCD prevention activities are promoted **in the pilot sites** through working with community support groups. 4. Good practices and lessons learnt from the Project are replicated.
Output indicators	**To be assessed**	1) **Increase in the number of HT and DM patients registered in the pilot sites** 2) **Proportion of health facilities (district hospital: DH, UZHC, and Community Clinic: CC) comply the standardized HT and DM protocol in the pilot sites (0, 2017→ 80%, 2022)** 3) **Increase in the number of referrals NCDs cases from CC to UZHC in the pilot sites** 4) **% Of hospitals (DH, UZHC) practicing the PDCA/Kaizen approach in the pilot sites (Narsingdi and Cox's Bazar Districts) (0, 2017 to 70%, 2022)** 5) **Increase in the percentage of people knowing NCD risk factors in the target areas** 6) **Cases of collaboration for improving health services between health facilities and**

		local government bodies (case study)
Means of Verification for Outputs	**To be assessed**	**1) Project baseline/mid-line/end-line survey** 2) **Project monitoring data and report**
Activities: Output 1	1-1. Conduct situation analysis on **NCDs (CVD and DM) and MH (related to NCDs)** services including service guidelines, protocol and training manual. 1-2. Conduct facility **(CCs, H&FWCs, Upazila Health Complexes (UZHCs) and District hospitals (DHs)** assessment on NCD service delivery **in the targeted areas.** 1-3. Develop **pilot NCD service guidelines**, protocol and training manual **1-4.** Implement the pilot NCD training **in the targeted areas.** **1-5.** Try out the pilot NCD **service delivery in the targeted areas.** **1-6.** Monitor the pilot NCD **service delivery in the targeted areas.** 1-7. Revise **the pilot NCD and MH (related to NCDs) services** based on the experiences of pilot activities. 1-8. Finalize **the NCD service** to be expanded in other areas. 1-9. Standardize **the NCD services** to be provided throughout the country. **1-10. Organize ToT for NCD service expansion.**	1-1. Conduct situation analysis on **NCDs services including service guidelines, protocol and training manual** 1-2. Conduct situation analysis on **NCDs related MH services including service guidelines, protocol and training manual.** 1-3. Conduct facility **(CC, UZHC, DH and Urban Dispensary: UD)** assessment on NCD service delivery in the pilot sites. 1-4. Develop pilot **NCD intervention guidelines**, protocol and training manual 1-5. Implement the pilot NCD training in **the pilot sites** 1-6. Try out the pilot NCD **interventions in the pilot sites.** 1-7. **Monitor the pilot NCD interventions in the pilot sites.** 1-8. Revise the **pilot NCD interventions** based on the experiences of pilot activities. 1-9. Finalize **the NCD intervention guideline and protocol** to be expanded in other areas. 1-10. Standardize **the NCD intervention guideline and protocol** to be provided throughout the country. 1-11. **Support the expansion of standardized NCD intervention in collaboration with partners.**
Output 2	2-1. Conduct hospital quality assessment by hospital Quality Improvement Committee (QIC) **in the targeted areas.** 2-2. Develop a quality improvement (QI) action plan based on the assessment **at the hospital level.** 2-3. Implement the QI action plan **by QIC and Work Improvement Team (WIT)** at the hospital level. 2-4. Monitor implementation of the	2-1. Conduct hospital quality assessment by hospital Quality Improvement Committee (QIC) **in the pilot sites.** 2-2. Develop a quality improvement (QI) action plan based on the assessment **by the hospitals (DH, UZHC).** 2-3. Implement the QI action plan by **Work Improvement Team (WIT)** at the hospital level.

	QI action plan by the hospital QIC 2-5. Support the function of the QI mechanism at **the District/ Upazila** level.	2-4. Monitor implementation of the QI action plan by the hospital QIC. 2-5. **Train hospital managers and staff on PDCA and Kaizen for the advancement of QI activity**. 2-6. Support the function of QI mechanism at the **National/District/ Upazila level.**
Output 3	3-1. Assess the status of the activities of health promotion and Community Support Group (CSG) 3-2. **Conduct the Knowledge, Attitude, and Practice (KAP) survey in the targeted areas.** 3-3. **Design the project activity based on the assessment and KAP survey.** 3-4. Update the CSG training manual to include NCD management. 3-5. Support national ToT for CSG 3-6. **Conduct** CSG training (development of CSG action plan) in the targeted areas. 3-7. Implement the CSG action plan **in the target areas.** 3-8. Support **resource mobilization mechanisms** between CSGs/health facilities and local government bodies. 3-9. Monitor the CSG activities by the Core Team **in the targeted areas.** 3-10. **Review the project activity.** 3-11. Establish the CSG monitoring and support mechanism through Core Teams.	3-1. Assess the status of the activities of health promotion and Community Support Group (CSG) 3-2. Update the CSG training manual to include NCD management. 3-3. Support national ToT for CSG. 3-4. **Support** organizing CSG training (development of CSG action plan) **in the pilot sites.** 3-5. **Support** Implementation of the CSG action plan **in the pilot sites.** 3-6. Support **resource mobilization** between CSGs/health facilities and local government bodies. 3-7. Monitor the CSG activities by the Core Team **in the pilot sites.** 3-8. Establish the CSG monitoring and support mechanism through Core Teams. 3-9. **Facilitate mobilization of community activities in Dhaka city.**
Output 4	4-1. Conduct the baseline survey and end-line survey of the project. 4-2. Conduct the studies to identify good practices and lessons learned generated from the project. 4-3. **Develop documents on good practices and lessons learnt from the project.** 4-4. **Disseminate** good practices, outcomes, and lessons learnt from the project **among the policy makers and stakeholders.**	4-1. Compare the data of baseline, mid-line, and end-line surveys of the Project. 4-2. Conduct the studies to identify good practices and lessons learnt generated from the Project and document them. 4-3. **Reflect** good practices, outcomes, and lessons learnt from the Project **to national policies and strategies.**

4. Others

4-1 Results on Environmental and Social Considerations

No related activities were done.

4-2 Results on Gender/Peace Building/Poverty Reduction (if applicable)

As for gender issues (in Bangladesh), in general, women's activities are not as restricted like other Islamic countries. The literacy rate is more than 90% for women aged between 15-24 years. Women are also the important earning workforce in Bangladesh working in the garment and other factories, government and other offices as salary staff.

In the project areas, varieties of training programs were conducted for the health service providers. Awareness-raising activities were also carried out in the communities. It was observed that both the male and female participants actively participated in the activities and raised their voices and suggestions.

This may be because many NGOs are working in Bangladesh for a long time. Many of the NGOs are working with the communities and have created an enabling environment and contributed to women's empowerment. Moreover, the women's literacy rate has increased significantly during the last decades. All these factors may have contributed to women's empowerment. Regarding peacebuilding and poverty reduction, in collaboration with its counterparts, the project has provided the necessary support for the establishment of NCD services and created community awareness for accessing the health facilities.

4-3 Collaboration with other donors

Collaboration with other donors is shown below.

Table 37: Donor Collaboration

	Donor Name	Contents
Output 1 related	World Health Organization: WHO	In the activities related to Output 1: 1. The project has collaborated with WHO for the development and implementation of the WHO-PEN (Package of Essential Non-Communicable Diseases Interventions for Primary Health Care, a global response to NCDs. Support the Health Care in Low-Resource Settings approach) in Bangladesh. The project also worked with WHO in developing the PEN guidelines, protocols; procedures, training tools, etc. 2. Technical assistance was provided for the introduction and implementation of the NCD management model in five districts of WHO; supported the Health and Gender Support Project in Rohingya Governorate of Cox's Bazar district, and activities of the healthy city in Khulna, and Cox's Bazar districts
Output 2 related	USAID: umbrella for non-governmental	Together with Save the Children (under the USAID umbrella), the project holds QI-related strategy formulation and consultations, and jointly conducts 5S/PDCA training in the project target area.

	organizations: NGOs	
Output 3 related	UNICEF: UNICEF, Asian Development Bank: ADB, U.S. Agency for International Development: USAID, World Bank: WB, NGOs	1. Community activities were outsourced to partner organizations (CARE Bangladesh and DSK) 2. For the development and approval of the GOD guideline, the project collaborated with the government departments, UNICEF, ADB, USAID and World Bank. The guideline was finally approved by the ministry in 2022.

III. Results of Joint Review

III. Results of Joint Review

1. Results of Review based on OECD Development Assistance Committee (DAC) 6 Evaluation Criteria

As a method of joint review, Japanese experts first examine the six- items of DAC evaluation based on JICA's "guidelines for the preparation of a completed report" and the evaluation is done on four scales, like "high", "slightly higher", "slightly lower", "low". The Project has conducted an evaluation on six items interviewing 12 counterparts and partners as described in the PDM. The interviews were done independently by the interviewers who were not linked with the project. The final evaluation results are provided in this report (Table 38).

Table 38: Result of DAC 6 Evaluation Item

<table>
<tr><th>Items</th><th>Result</th><th>Contents</th></tr>
<tr><td>Overall Evaluation Result</td><td>High</td><td>
<table>
<tr><th>Evaluation items</th><th>Evaluation Rate</th></tr>
<tr><td>Relevance/Coherence</td><td>High</td></tr>
<tr><td>Effectiveness/Impact</td><td>High</td></tr>
<tr><td>Efficiency</td><td>High</td></tr>
<tr><td>Sustainability</td><td>High</td></tr>
</table>
</td></tr>
<tr><td>Relevance</td><td>High</td><td>1. Consistency with development policy (is there consistency between the purpose of the project and the development policy of the country concerned?)
・ Focusing on beneficiaries, are the projects formed based on consideration and fairness for the vulnerable? And even if the situation changes during the project implementation period, have appropriate adjustments been made to ensure that the situation is always appropriate?
・ The project focuses on the beneficiaries and the project was formulated considering, in particular, the demand side. The project strengthened the provisions of NCD services to the community and focused on activities to promote behavior change on NCDs.
・ Even when the project implementation was slowed due to the spread of COVID-19 infection, appropriate adjustments were made through consultation with the counterparts and stakeholders and ensured that the activities always remained appropriate.
2. Consistency with development needs (is there consistency between project goals and needs?)
・ Bangladesh is currently implementing the Fourth sector program (Health, Population and Nutrition Sector Program;</td></tr>
</table>

		2017-2022). The project was implemented within the framework of the sector Program. **3. Appropriateness of project plans and approaches (Is the plans and approaches appropriate as solutions to problems and issues?)** ・ The logic of the approach was mutually reinforced, focusing on bottom-up awareness raising and top-down service enhancement. **4. Interview result** • All of the interviewees stated that the project was relevant to the priorities and policies (as reflected in the current sector program) of the government. • One of them said, *"It is 100% relevant for the perspective of Bangladesh."* Almost everyone suggested that such type of project needs to be implemented in all the districts of our country. • The Line director, NCDC said, "*The facility and community-based interventions of the project were appreciable. Although it's still a pilot project, gradually this model needs to be implemented all over the country."*
Coherence	**High**	The purpose of this project was consistent with the Japanese government's policy of country-specific development cooperation with Bangladesh and is planned to create synergies in cooperation with the Yen Loans. In addition, it is in line with the Bangladesh Government's national policy of the Fourth Health, Population and Nutrition Sector Program to strengthen services for maternal health and non-communicable diseases, which is listed as a priority area of Japan's Bangladesh Country Development Cooperation Assistance Policy. It was intended to improve the health system by strengthening the capacity for management, establishing a community-based health support system and supporting the NCD response as a development issue in Bangladesh. Other donors such as WHO are also cooperating with the project and the government. **1. Did the project conduct specific cooperation with other JICA projects? Is the expected synergistic effect / interconnection recognized?)** • This Project collaborated with the Japanese Government and JICA's country assistance policies with Yen loan to make a synergistic effect. The Project had a collaboration with other development partners. **2. Did the project conduct cooperation with other projects (support and concrete cooperation (mutual complementation, harmony, association) by other projects in Japan, other**

		development cooperation organizations, etc.? Expected synergistic effects and mutual linkages are recognized.) • This Project was planned considering the synergistic effect of the Yen Loan Project on the "Maternal, Neonatal and Child Health and Health System Improvement Project" and "Health Services Strengthening Project" • Collaboration with JICA's Capacity building of Nursing Service and JICA's Governance Project (Upazila Governance and Development Project) was established from the beginning of the Project implementation. • The project collaborated with other development partners, such as WHO, UNICEF, ADB, and other International NGOs, such as Save the Children, CARE, etc. **3. Cooperation with the international framework (Are there any examples of efforts such as cooperation with the international framework and activities in line with the international framework?)** ・ The project adopted the global approach of WHO PEN (Package of Essential Non-Communicable Diseases: Interventions for Primary Health Care in Low-Resource Settings) in designing the NCD management model and developing the protocols, guidelines and training materials. **4. Interview Results** • The respondents were asked whether the project goal and objectives were consistent with the current health sector needs and priorities and aligned with the operational plans and policies of the government. In response, all the interviewees said that the project goal and objectives were consistent with the current needs and health sector priorities of the country.
Effectiveness	**High**	To achieve the project purpose, all the activities were implemented. Compared to the baseline survey, the endline survey results showed that the project purpose was achieved at the expected level [11/12 indicators (91%) - moderate achievement]. Throughout the project implementation period, the project promoted collaboration and cooperation with the counterparts, WHO, UNICEF, NGOs, etc., and not all the results were attributed to the project alone. By utilizing existing mechanisms (community support groups at the community clinics were established in the previous project not only for maternal and child health activities but also for awareness activities for NCD prevention), the project collaborated and coordinated with others. The degree of achievement is high because it contributed to improving the quality of health services at the community level despite a wider range of health care challenges.

1. Achievement of project goals (whether the produced results led to the achievement of the project goals, or the project goals were achieved by the time the project was completed)

2. Achievement of Outputs (JICA evaluation guidelines do not specify evaluation criteria based on the achievement status of Outputs, so they are listed as reference information.) The degree of achievements is shown in Table 35 (PDM indicators). The endline survey results (compared to the baseline) showed that the purpose of the Project is almost achieved (degree of achievement: achieved 11 out of 12 indicators (91%).

- It was effective to establish and implement the NCD management model. To promote this, guidelines, modules, and protocols were developed for the capacity building of human resources and service delivery. In addition, the inclusion of NCD prevention information in the existing community supporting group training manuals is also recognized as an approach for the prevention of NCDs.
- The approach of utilizing the CSG mechanism, developed under the SMPP (previous project), was highly effective for NCD prevention. The health workers and community workers involved in the NCD prevention activities were trained in maternal and child health and NCDs, which contributed to the improvement of the quality of services at the community level.
- Throughout the project implementation period, the project promoted collaboration with all stakeholders such as counterparts, WHO, UNICEF, NGOs, etc., and not all the results are attributed by the project alone. By utilizing the existing mechanisms (introducing community support groups at the CCs for maternal and child health and NCD awareness activities), the project contributed to the improvement of the quality of health services at the community level for a wider range of health care issues.
- There was no difference in plan and actual target area

3. Interview results

- Major activities that contributed to this attainment were: a) Establishment of NCD corners with available drugs; b) Proper utilization of the existing government system, c) Capacity building of the service providers (such as doctors, nurses, and health workers), and Multi-Purpose Health Volunteers, d) Logistic support, d) development of NCD management protocols and d) Introduction of 5S, PDCA for the improvement of the quality of services.

Efficiency	**High**	There were obstacles such as delays in project implementation due to the spread of COVID-19 infection and difficulties in coordinating and dispatching the project experts, there was a delay in the progress of activities in the middle of the project period. However, after that, the project effectively implemented the activities to realize the results without any major obstacles. In addition, the Japanese side allocated the appropriate amount of budget in a timely manner. **1. Comparisons of planned and actual projects input, project period and project cost** • Project input: Inputs were mostly alright. • Due to the COVID-19 pandemic from the beginning of 2020, some activities have been delayed due to restrictions on local travel and activities (e.g., staff gathering and movement) as ordered by the Ministry of Health. However, the project was able to operate programs through online meetings with the local staff. As a result, all activities were carried out as planned. • Equipment was procured and supplied timely • Tools, guidelines, etc. were developed timely in collaboration with C/P **2. Project period:** it was appropriate **3. Causal relationship (Is the activity necessary to produce results, timely, appropriate quantity, and quality input?)** • Project collected information on changes in the project indicators at regular intervals, prepared the progress reports, shared them with the counterparts, and responded to the risks. If there were a need for change in plans, the project worked with counterparts and local staff and selected the best possible alternative for implementation. As a result, there was no waste or duplication of cost or duration of the project. • Due to the changes in counterparts, the project had to spend time for briefing. **4. Interview Result** • All the respondents agreed that the project has achieved the targets on time though COVID 19 hindered some activities, such as the delayed implementation of 5S and PDCA and staff training on NCDs. • However, at the end of the project, most of the activities were completed on time. • One of them informed that "There were some delays to fulfil the objectives on time due to Covid-19, although the project activities didn't stop. JICA, SHASTO PROJECT and BADAS

		worked together to create awareness during COVID 19."
Impact	**High**	The project overall goal is: "The health status of the population in Bangladesh is improved." There were 2 indicators such as: ➢ The national prevalence rate of hypertension (over 20 years old, male 19%, female 32%, 2022➔no change ➢ Maternal Mortality Ratio (196, 2016➔121, 2022) **1. Prediction of achievement of Overall Goals (see Table xx)** ・ The prevalence of hypertension among people over 20 years of age did not change. This could be due to a) in general (as the studies show) the prevalence of hypertension is increasing in Bangladesh; b) it is a chronic disease and there is no cure. Therefore, once a person develops hypertension, he will have it for lifelong; and c) the NCD management model was not implemented nationwide to get the results. ・ However, in the future, interventions such as promotion of NCD prevention through health education, educational activities to promote behavior change and strengthening of the NCD management model nationwide may gradually reduce the prevalence. ・ On the other hand, to reduce maternal mortality, it requires strengthening of maternal health care services such as promotion of ANC/PNC, institutional (or skilled) delivery, strengthening of basic and comprehensive EmONC services and improvement of quality of care. **2. Causal relationship (whether the overall goal and the Project Purpose are not different, and are the external conditions from the Project Purpose to the Overall Goal still appropriate?)** ・ Out of the six project goal indicators, the endline study did not show any improvement in the intake of unhealthy diet (fruits and vegetables) compared to the baseline data (see Endline Survey Report of Outcomes 4). ・ Since data were not collected to explain the reasons for not using a healthy diet, it is difficult to explain. Since the survey was conducted during the COVID-19 pandemic, this could be an indirect effect of the pandemic (e.g., reduced income and affordability to buy fruits and vegetables). However, there has been an improvement in the knowledge on NDC prevention, although "knowledge" has not led to behavior change. ・ The target districts achieve meaningful results that the project did not initially anticipate (review of the NCD-related drug supply systems, ability of the community groups to generate funds for the operation of the community clinics and

		introduction of NCD prevention awareness activities through secondary schools). **3. Spill-over effect (Is there an expected effect / impact other than the overall goal, is there a different positive / negative impact due to differences in gender, ethnicity, and social class, or is there any other negative impact)?** ・ Although there is a causal relationship between project activities and outcomes and goals, external factors other than the project activities may have an influence in achieving some indicators. For example, regarding reduction in risk factors (eating unhealthy diet in Project purpose indicator 5), the Focus Group Discussion of the end-line study says "Financial challenges and food safety were the concerns for not consuming adequate fruits and vegetables". ・ It is always challenging to change the behavior of the large at risk population (aged more than 30 years and pregnant women) living in the project sites. Changes in knowledge and behavior were considered as the reference indicators in this project for evaluation. However, it may be more appropriate to use the output and process indicators for the purpose of evaluation. ・ The project goal is "Non-communicable Disease (NCD) and Maternal Health (MH) services are improved in an integrated manner". The Ministry of Health is divided into two Directorates – DGHS and DGFP. When the PDM was revised, Maternal and Child, Reproductive Health and Youth Healthcare of DGFP were removed from the list of implementing agencies. Cooperation between DGHS and DGFP is indispensable for effective medical care services integrated with the NCDs prevention at the community. For practical reasons collaborations are needed for integrated services. The Project however provided NCD management training to the health service providers of DGFP to strengthen the NCD management model. ・ In the intervention areas, the school health program for the prevention of NCD was introduced. The project also carried out awareness programs for religious leaders, and schoolteachers, etc. ・ A large number of community groups in the project districts was found to be effective. They could successfully mobilize resources (funds, equipment or other materials) from the local government and general public for the better management of the CCs (shared in JIGO News, etc.).

		• The project supported (as an emergency response) the government in developing the Infection Prevention Procedures and Preventive Procedures for NCD during the COVID pandemic. **4. Interview results** • Most of the respondents stated that the project was beneficial to both the service providers and general people, especially the rural people. The project has an impact on the following areas: • Screening for NCDs has greatly increased in the project areas • Establishment of a 10 bed CCU in Cox's bazar district was helpful in managing the COVID and NCD patients • Monitoring and supervision of CCs have increased by the Govt. • Social counseling and awareness have improved through MPHV training • People are showing a positive attitude towards NCD and related risk factors. • Village doctors and religious leaders (Imam) become aware of NCDs. Many religious leaders included NCD awareness messages in the weekly sermons at the mosques. • A few of the respondents stated that the impact of the project is not known to them since they do not know the results of the endline survey. However, the information that they have from the project sites, indicates that there is a positive impact.
Sustainability	**High**	It is expected that all the counterparts will continue the activities which the Project has supported since all of them are included in their own Operational Plan with necessary budget supports. Therefore, Sustainability is High. **1. Policies / systems (Is the policy / institutional backup necessary for sustaining the project effect established?)** • Counterparts will follow all the Operational Plans and will implement the activities accordingly • Policy/political aspect: The project was developed to support the government policy and was aligned with the 4th Health Sector Program. **2. Organization/system of the executing agency (whether the organization/system of the executing agency necessary for sustaining the project effect and the existence of human resources has been established)** • Institutional/organizational aspect: The project was implemented within the government system and utilized the human resources available in a health system. The unification

		of DGHS and DGFP is a long issue of discussion. Continuous dialogue is necessary for solving this issue. **3. Technology of the executing agency (whether the executing agency has sufficient technical level necessary to sustain the project effect? Or in the case of a project targeting a pilot site, the executing agency will use the technology that can be disseminated to other areas?)** and f**inance of the executing agency (Financial balance of the executing agency, status of securing public and private funds, maintenance forecast)** • Technical and financial aspect: NCD Management model was developed by adopting the WHO's approach and there is continued technical support from WHO. Many of the development and other partners are willing to provide technical and financial support to the government's program. • Social & environmental risk and operation & maintenance aspect: The issues of strengthening, monitoring and supervision to keep the service providers motivated, need continuous discussion. **5. Interview result** • Most of the respondents thought that the project activities would continue after donor funding is withdrawn. One of the interviewees stated that *"This project is working by educating our doctors, nurses & other health workers, the effect of which will be very long lasting to establish a sustainable healthy environment."* • JICA is jointly working with the existing health system and Govt. workers, that's why after the withdrawal of donor funding the works in these areas will continue. However, one of the respondents said that this project was needed in all the districts of Bangladesh for a longer duration. • The main factors which influenced the sustainability of the project are: 1) Capacity buildup of the staff, 2) All activities were synchronized with the OP of NCDC, 3) Community mobilization, 4) Community participation

2. Key Factors Affecting Implementation and Outcomes

Spread of new coronavirus infections

Due to the spread of the COVID-19 infection in 2020 and 2021, the hospital services in each district were seriously affected due to the influx of COVID-19 patients. Implementation of regular NCD services and QI activities were greatly affected. Meanwhile, community clinics have seen a sharp drop in the number of patients due to restrictions on movement and fear of COVID-19 infections. I also affected the treatment compliance of the NCD patients. In response to the

pandemic, the project placed the highest priority on infection prevention activities and distributed preventive equipment and carried out awareness activities with other partners.

3. Evaluation on the results of the Project Risk Management

The project always followed the instructions and recommendations of the JICA Bangladesh Office, independently worked to gather information, and took the highest precautions on security. In addition, for the prevention of COVID-19 infections, Project implemented preventive measures, including preventive measures for the local staff.

4. Lessons Learnt

(1) Output 0 related: Project Coordination Committee (JCC)

During five years of implementation of the project, the JCC meeting was organized once due to a lack of time and adjustment of the schedule of the high government officials.

On the other hand, several meetings of the Project Implementation Committee (PIC), which is chaired by Additional Secretary, HSD (Planning Wing), MOHFW were held successfully. Many members of the JCC are directly related to project implementation and many at times it was necessary to have the opinion/approval of the JCC. For the next project, the lesson learned is that direct communication with the government using the mobile phone is more effective than communication through e-mails and sending letters.

(2) Alignment of Bangladesh's health issues with the project purpose

The project purpose and outputs were in line with the strengthening of prevention of NCDs, which is currently a priority of the Bangladesh Government.

To prevent NCDs, the NCD management model has been introduced and is being implemented by NCDC with support from the SHASTO project and other partners. In the meantime, the model has been introduced at 274 UZHC (out of 492) nationwide till June 2022. This was achieved through:

1） Supporting NCDC operational plan to expand NCD Management Model nationwide
2） Support for the formulation of frameworks and development of the guidelines, training, etc.
3） Capacity building of health service providers (including NCD management model training for NCD screening during ANC/PNC under DGFP)
4） Support for the implementation of the NCD management model in the target areas (assistance includes facility renovation, provision of equipment, etc.)
5） Improving the quality of services by strengthening the functions of health and medical facilities using the 5S/PDCA method

6） Conducting awareness-raising activities in the community centering the community clinics

At the time of project planning, health issues in Bangladesh were identified and coordination of project activities with the government was established.

(3) Prevention of NCDs (Resident-Led Activities)

At the project formation stage, consultation with the counterparts and success stories of the previous Safe Motherhood Promotion Project (SMPP) related to the community clinics, CG and CSG were considered for strengthening NCD prevention awareness.

In addition, the project established and activated the CG and CSG to strengthen the functions of the CCs, and established and supported the core team to strengthen the monitoring and supervision system. The capacity of the CG and CSG was strengthened through training.

Through the capacity building of staff at all levels, strengthening of the CCs with the supply of equipment and logistics, and community awareness activities together increased screening for NCDs in the community.

The core team strategy was found to be effective. The core team members were trained and supported by an external agency (CARE Bangladesh) for the implementation of the monitoring plan. Since the core team approach was effective, CBHC should carry it forward and expand it to other areas of the country.

However, support is needed for the sustainability of the community activities by the CG and CSG that do not generate incentives (rewards, or things). These need continued discussion with the government, and development partners.

(4) Approach by community resources-led activities

At each community clinic, there are 3 CSGs. The CSG members (15-17 members) include different categories of community people like religious leaders, teachers, woman's groups, adolescent groups, and females.

The project supported the strengthening of the core team for monitoring the CC, CG and CSG. For better management of the CCs, CSGs raise funds from different sources, such as local government, personal donations, and government sources (Upazila administration), etc. CSGs are also engaged in raising community awareness. It was suggested by the CPs to involve the religious leaders to promote awareness of NCD prevention and using the mass media.

IV. For the Achievement of Overall Goals after Project Completion

IV. For the Achievement of Overall Goals after Project Completion

1. Prospects to achieve Overall Goal

The overall goal of the project is **"The health status of the population in Bangladesh is improved".**

Prospects of achievement on this goal are shown in Table 39.

Table 39: Prospects of Achievement on Overall Goal

Overall Goal				
	2017 Benchmark	2020*1	2023*2	Prospect of Achievement
Indicator 1 : **The national prevalence rate of hypertension** (over 20 years old male 19%, female 32% in 2011➔no change)	over 20 years old: male 19%, female 32% (BDHS 2011)	Over 35 years old: male 34%, Female 45% (BDHS 2017-2018) 18-69 years old Male 21.5%, Female 8.7% (STEPS 2018)	**➔no change**（evaluation on 2023）	**Tough but achievable :** ・ Currently NCD Management Model is on expansion to cover all the Upazila health center ・ Due to lifestyle changes in general with the increase in the prevalence of risk factors, NCD patients tend to increase ・ However, with the improvement in uptake of screening, the number of NCD patients will also increase. However, with the expansion of the NCD management model, it may be achieved.
Indicator 2: **Maternal Mortality Ratio**（196 in 2016 ➔ 121 in 2022）	196 (BMMS 2016)	196 (BMMS 2016)	121 (Survey will start after COVID-19 ?)	**Possible to Achieve:** ・ Health system strengthening, such as improvements of Antenatal and postnatal care, institutional delivery, emergency obstetric newborn care and improvement of quality of services will reduce MMR

*1: According to the mid-term evaluation of the 4th Health, Population, Nutrition Sector Program

*2: According to a final evaluation of the 4th Health, Population, Nutrition Sector Program) (extended for one year from 2022 to 2023 due to COVID-19

- Indicator 1 shows data from "Bangladesh Demographic Health Survey（BDHS）"（it is planned to conduct every 3 years however after 2018, there is no survey conducted）
- Indicator 2 shows the date from the "Bangladesh Maternal Mortality Survey（BMMS）"（it is conducted every 10 years. The last survey was conducted in 2016, and there is no plan as yet for conducting the survey once again). Achievement numbers (2023 年) is the target set by the 4th Health, population, and Nutrition Sector Program. At the end of the Sector Program in 2023, those indicators will be evaluated

2. Plan of Operation and Implementation Structure of the GoB side to achieve the Overall Goal

(1) NCDs prevention and treatment:

The NCDC has targeted hypertension and diabetes for its interventions in the OP. The NCD management model has been introduced at 274/492 UZHC till 2022 (about 56% of the total). NCDC has a plan to speed up the implementation of the NCD management model to cover all the Upazilas in the country by 2025. It is difficult to reduce the prevalence of NCDs since it is related to lifestyle changes. The treatment of NCD patients is also costly as it requires life-long treatment. It may be difficult for the government to cover the cost. As such, the decision has to be taken by the government on this issue (whether to provide free treatment for all kinds of NCDs or take other decisions).

(2) MCH side:

Operational plan of DGHS: The OP of the Maternal, Neonatal, Child and Adolescent Health (MNCAH) shows that Bangladesh aims to achieve the SDG 3 targets by 2030, i.e., reduction of maternal mortality ratio to less than 70 per 100,000 live births. To achieve this, 4 target areas need to be strengthened,

1) Increase skilled deliveries at the institutions and at home by the Skilled Birth Attendants
2) Strengthen 24/7 (24 hours and 7 days) Emergency Obstetric Newborn Care services at the Upazila level in phases
3) Establish a functional referral system from community to facility level as well as from facility to facility levels
4) TT5 coverage among women of childbearing age reached at least 80 percent at the national level and 75 percent at each district level

These areas of maternal and child health services are the concerns of the government. The MMR shows a declining trend and with the support from the DPs, it is expected that the target will be achieved.

3. Recommendations for the GoB

(1) Strengthening Generous collaboration between DGHS and DGFP at primary level services

To achieve the project purpose of "Non-communicable Diseases (NCDs) and Maternal Health (MN) services are improved in an integrated manner", the project has strengthened collaboration between DGHS and DGFP at the primary level.

Under the DGHS, CC conducts screening, and patients are referred to UZHC for diagnosis and treatment. Under the DGFP, women coming for ANC/PNC are screened for hypertension and

diabetes (they are at higher risk to develop PPH). The suspected cases are referred to UZHC for confirmation and treatment. There is no unified patient follow and data collection system for the DHIS2.

For better services, the patients need one-stop service. This was discussed with NCDC to introduce the NCD management model to DGFP side health service providers. This was agreed upon and promoted to two health facilities. As a result, there was an improvement in the number of patients at the NCD corners. Collaboration between DGHS and DGFP at primary levels is needed for integrated services.

(2) Strengthening NCD prevention at the community level

It is agreed that NCDs are major public health problems in Bangladesh. The major interest of the government and DPs is to improve the MCH and NCD situation of the country. Community awareness is an important issue for accessing the healthcare services, decision making and lifestyle changes. The project considered the "Family Centered Culture" to promote awareness of the community and developed a booklet "Family Health Knowledge Book". The booklet covers government-approved information on NCD, MCH, EPI, nutrition, and family planning. The booklet has been distributed to the project areas (all health facilities in the district, and schools) for the awareness of the family members. The booklet should be used by the CBHC and other health departments in other areas of the country.

(3) Functional Supervision and Monitoring

Supervision and monitoring visits (for outputs 1, 2 and 3) by the government (CBHC, NCDC, QIS, etc.) and the project was reduced (or delayed) due to the COVID pandemic and restriction of movements and gathering. With the improvement of the COVID situation, the monitoring has improved. It is important to strengthen the supportive supervision and monitoring for providing quality of services.

1) Service Provision side:

The project improved the capacity of the service providers through training. In collaboration with NCDC and other CPs, the project introduced the NCD management model in the districts. 5S and PDCA training was also provided to improve the quality of services. The project supported the government to establish the NCD corners with the supply of furniture, equipment and renovation. All these activities helped in establishing the NCD services at the project areas. To sustain the achievements, the monitoring and supervision system needs to be strengthened with the use of checklists. In this regard, the supervisors may need training on how to do supportive supervision and use the checklists.

2) At the community level:

The CBHC needs to a) review the current supervision monitoring checklist together with the system; b) clarify the role of NGO as implementing partner for supervision and monitoring at

the community level; and c) Strengthening the district and Upazila core teams; d) Parallel monitoring between CGs to promote collaboration and knowledge sharing on the management of community clinics.

4. Monitoring Plan from the end of the Project to Ex-post Evaluation

All the counterparts have strongly stated that supervision and monitoring will be strengthened to sustain the project achievements and are ready for future evaluation.

List of Attachments and Appendixes

Attachments

1. Results of the Project (List of JICA Expert, Input by the GoB side)
2. List of products (Report, Manuals, Handbooks etc.) produced by the Project
3. PDM (all version)

Attachment

Contents

Attachment 1. Results of the Project (List of JICA Expert, Input by the GoB side)

1) List of JICA Expert

Expertise	Name and Duration
Chief Advisor	• Yukie Yoshimura (2017-2019) • Kan Hanzawa (2019-2020) • Izumi Murakami (2020-2022)
Terms and Responsibilities 1. Management of project implementations (activity planning ,operation, monitoring as total) 2. Preparation of work plans and monitoring sheets and discussion 3. Supervision and management of baseline, endline surveys, analysis, reporting 4. Project Implementation Committee 5. Monitoring and supervision of output 1-4 6. Coordination with other development partners 7. Preparing and submitting of project reports	
NCDs	1. Rie Ozaki (2020-2022)
Terms and Responsibilities 1. Monitoring and supervision of all activities under output 1 NCD management 2. Support for conducting endline survey and its analysis 3. Coordination with related counterparts (NCDC and others) 4. Preparing reports	
Maternal and Child Health Care: MCH	• Rie Ozaki (2017-2020)
Terms and Responsibilities: 1. Monitoring and supervision of all activities related with MCH under output 1, 2, 3 2. Support for conducting baseline survey and its analysis 3. Coordination with related counterparts (NCDC, QIS, CBHC and others) 4. Preparing reports	
Quality of hospital services	• Syuichi Suzuki (2017)
Terms and Responsibilities: 1. Monitoring and supervision of all activities under output 2: Quality of hospital Service 2. Support for conducting assessment of facilities on quality of health services and its analysis 3. Coordination with related counterparts (QIS and others) 4. Preparing reports	
Health Promotion	• Michiru Suda (2020-2022)
Terms and Responsibilities: 1. Monitoring and supervision of all activities under output 3: Community based NCD preventions 2. Support for conducting endline survey and its analysis 3. supervision and monitoring of NCO (contract-out) at district level 4. Coordination with related counterparts (CBHC and others) 5. Preparing reports	
Coordinator	• Mai Ogawa (2017-2019) • Koji Kanamaru (2019-2020) • Akiko Abasi (2020-2022)
Terms and Responsibilities 1. Account management 2. Supporting all budget related activities 3. Assist all project implementations 4. Public relations	

2) Inputs by the GoB side

Secretary of Ministry of Health and Family Welfare： • Md. Serajul Huq Khan (2017–2018/12) • Md. Ashadul Islam (2018/12 – 03 June 2020) • Mr. Abdul Mannan (04 June 2020– 03 April 2021) • Mr. Lokman Hossain Miah (04 April 2021–) • Dr. Md. Anwar Hossain Howlader (14 June 2022 –till date)	
Project Director:	
Additional Secretary (Planning), Health Services Division, MOHFW	• Dr. A.E. Md. Muhiuddin Osmani (2017– 2020/06) • Mr. Md. Helal Uddin (2020/06 – 2022/05) • Mr. Mohammad Jahangir Hossain (2022/05– till date)
Project Manager (all Line Directors)	
Non Communicable Diseases Control：NCDC	• Prof. Dr. AHM Enayet Hussain (2017 – 19 February 2018, 05) (November 2019 – 30 December 2019) • Dr. Nur Mohammad (19 February 2018 – 04 November 2019) • Prof. Dr. Sania Tahmina Jhora (31 December 2019 – 08 February 2020) • Dr. Md. Habibur Rahman (09 February 2020 – 29 November 2020) • Dr. Aminul Islam Miah (30 November 2020 – 09 January 2021) • Prof. Dr. Md. Robed Amin (09 January 2021– till date)
Community Based Health Care：CBHC	• Prof. Dr. Md. Abul Hasem Khan (2017– 31 December 2019) • Dr. Shahadev Chandra Rajbonshi (09 January 2020 – 29 November 2021) • Dr. Hefeyat Hossain (09 November 2020 – 30 November 2021) • Dr. Masud Reza Kabir (30 November 2021 – till date)
Hospital Service Management：HSM	• Dr. Satyakam Chakrabarty (19 March 2019 – 04 November 2019) • Dr. Md. Khurshid Alam (04 November 2019 – 29 September 2021) • Prof. Dr. Md. Mazharul Hoque (29 September 2021 – till date)
Lifestyle, Health Education & Promotion：L&HEP	• Mr. Md. Abdus Salam (2017 – 31 July 2018) • Dr. Md. Rawshon Anowar (01 August 2018 – 05 November 2018) • Mr. Md. Abdul Aziz (06 November 2018 – 19 March 2019, 30 January 2020 – 21 March 2020, 26 January 2022– 27 March 2022) • Dr. Md. Ehsanul Karim (20 March 2019 – 30 January 2020) • Dr. Md. Abu Zaher (22 March 2020 – 22 February 2021) • Dr. Saiful Islam (22 February 2021 – 28 November 2021) • Dr. Md. Mizanur Rahman Arif (27 March 2022 – till date)
Upazila Health Care：UHC	• Dr. Md. Rizwanur Rahman (2017 – till date)
Quality Improvement Secretariat：QIS/Health Economic Unit)	• Dr. Md. Aminul Hasan (2017 – August 2019) • Dr. Md. Akhteruzzaman (September 2019 –till date)

Attachment 2. List of products (Report, Manuals, etc.) produced by the Project

	Title	Date of production
A	**Report**	
1	Baseline survey report	October 2018
2	End line survey report	January 2022
B	**Protocol, Guidelines**	
1	National Protocols for Hypertension and Diabetes at the Primary Health Care Level	September 2018
2	NCD Management Model Implementation Guidelines	December 2020
3	Guidebook "COVID-19 and Diabetes"	April 2020
4	Government Outdoor Dispensary Operational Guideline	May 2022
5	National Hypertension Guideline	July 2022
6	National Diabetes Guidelines	July 2022
C	**Training manual**	
1	Community Support Group (CSG) Training Manual	2018
2	NCD Management Model Training Tool	May 2019
3	Master Trainer's guide for Multipurpose Health Volunteer (MHV) Training	2019
4	MHV Training Manual	2019

Sl. No.	Name	Date of production/print, number of copies	Purpose	Utilization (User, Target, Activity)
D	**IEC materials**			
	a. NCD related educational tools			
1	BTV program: Hypertension (10min)	March 2019	To promote social awareness on prevention of Hypertension	Community People. Broadcasted on the BTV program "Jante Chai", and distributed through SNS. It is also used in trainings and NCD related programs.
2	BangladeshTV: BTV program: Diabetes (10min)	March 2019	To promote social awareness on prevention of Diabetes	Same as above
3	BTV program: Tobacco (10min)	March 2019	To promote social awareness on NCD	Same as above

			prevention(tobacco use)	
4	BTV program: Physical exercise (10min)	March 2019	To promote social awareness on NCD prevention(physical exercise)	Same as above
5	Poster 'World Diabetes Day 2019'  Specification Paper: Vinyl Sticker, Size: 23'' x 17''	November 2019	To promote social awareness on Diabetes prevention and control	Community People. Distributed to health care facilities and public places nationwide by the NCDC on World Diabetes Day
6	Animation 'World Diabetes Day 2020' (5min)	November 2020	To promote social awareness on Diabetes prevention and control	Community People. Distributed nationwide through SNS and used it at events of the Diabetes Day
7	Poster 'World Diabetes Day 2020'  Specification Paper: Vinyl Sticker, Size: 23'' x 17''	November 2020 4,000 copies	To promote social awareness on Diabetes prevention and control	Community People. Distributed to health care facilities and public places nationwide on World Diabetes Day
8	Flip Chart on diabetes and hypertension  Specification Paper: 300 GSM art card Insole Lamination: Mat Lamination with Spot Binding, Size: 10.5" X 8" Leaves: 36 (72 Pages)	March 2020 October 2020 1,500 copies January 19, 2022 250 copies	To use as training materials and at health education session in NCD corners, community clinics and other community places.	Health care providers and health educators at the health centers and community gatherings.

9	Animation on diabetes and hypertension(16min)	June 2020	Same as above	Community People. Distributed to targeted NCD corners by the NCDC, and distributed through SNS. It is also used in the trainings and NCD related programs.
10	Body mass index (BMI) wheel  Specification 3mm Acrylic Original Round Shape with Steel based Clip And UV Printing Size: 9” X 9” + 6.31” X 6.31”	March 2020 October 2020 1,500 copies January 19, 2022 250 copies	For using in measuring body mass index of the clients at the NCD corners and community clinics	Health care providers at various level health centers.
11	Animation ‘World Diabetes Day 2021’ (2min)	November 2021	To promote social awareness on Diabetes prevention and control	Community People. Distributed nationwide through SNS and used it at events of the Diabetes Day
12	Poster on Diabetes  Specification Paper: Vinyl Sticker, Size: 23’’ x 17’’	September 25, 2021. 3,400 copies	To deliver key health messages related to diabetes for building community awareness	Community people. Distribution and affixing of posters at the health facilities and other important public places in the project areas.
13	Poster on Hypertension  Specification	September 25, 2021. 3,400 copies	To deliver key health messages related to hypertension for building community awareness	Community people. Distribution and affixing of posters at the health facilities and other important public places in the project areas.

	Paper: Vinyl Sticker, Size: 23'' x 17''			
14	Poster on Life style modification  Specification Paper: Vinyl Sticker, Size: 23'' x 17''	September 25, 2021. 3,050 copies	To deliver key health messages on healthy life style for building community awareness	Community people. Distribution and affixing of posters at the health facilities and other important public places in the project areas.
15	Leaflet on Diabetes  Specification Paper: 80 GM gsm, Size: 9.5'' x 7''	September 25, 2021. 599,000 copies	To deliver key health messages related to diabetes for building community awareness	Community people. Distribution of the leaflets to the clients visiting NCD corners and community clinics in the project areas.
16	Leaflet on Hypertension  Specification Paper: 80 gm GSM, Size: 9.5'' x 7''	September 25, 2021. 599,000 copies	To deliver key health messages related to hypertension for building community awareness	Community people. Distribution of the leaflets to the clients visiting NCD corners and community clinics in the project areas.
17	Family Health Knowledge Book (Paribarik Swasthyabarta)  Specification Size: 9.3" X 6.4"	March, 2022 90,000 copies	To be used at the family for getting aggregated messages with a view to improve health knowledge	Family members. Distribution at the family through NCD corners, Community clinics, CG and CSG members and School teachers and students

	Cover Page: 300 gsm art card with mat lamination Inner Page:150 gsm art paper Page: Inner 20 Pages Print: 4 Color back to back Pocket: Back side inner Binding: Pin binding Contents are NCD, Maternal, neonatal, child health, EPI and COVID-19 related messages.			
18	Flip Chart with stand for teaching of students on NCD prevention under School Health Program.  Specification Paper: 300 GSM art card Insole Lamination: Mat Lamination with Spot Binding, Size: 18” X 13” Leaves: 36 (72 Pager) Color: 4 Color Back-to-Back Binding: Ware O Stand: 42 Ounce Solid Pasting Board with Cloth Cover (Both Side)	May 25, 2022 100 copies	To use as training materials for teaching of students by the teachers of secondary schools.	Students of the secondary schools, Teachers of those schools use during class time.
19	Poster on Diabetes prevention and control  Specification	July 2022 25,000 copies	To promote social awareness on Diabetes prevention and control	Community People Distributed to healthcare facilities and public places by NCDC and BADAS

	Paper: Vinyl Sticker, Size: 23'' x 17''			
20	Leaflet on Diabetes prevention and control  Specification Paper: 100 gsm art paper, Size: 10'' x 8'', Color, 4 pages	July 2022 350,000 copies	To promote social awareness on Diabetes prevention and control	Community People Distributed to healthcare facilities and community gathering.
21	Video clip on NCD prevention (8min)	July 2022	To promote social awareness on NCD prevention and lifestyle modification	Community People Distributed to healthcare facilities and used at NCD corners and community gathering.
	b. COVID-19 related educational tools			
1	Animation"COVID19 and Diabetes"	June 2020	To promote social awareness regarding Diabetes prevention and control in the COVID 19 situation.	Community People. Distributed through SNS, and it is used in the online course "COVID-19 and Diabetes"
2	Documentary"COVID19 and Diabetes"	June 2020	Same as above	Same as above
3	Poster"COVID19 and Diabetes"  Specification Paper: Vinyl Sticker, Size: 23'' x 17''	June 2020	Same as above	Community People. Printed by NCDC and BADAS, distributed to health facilities nationwide
4	COVID-19 Poster	June 15, 2021 300 copies	To deliver key health messages related to COVID-19 to the community people	Community people. Distribution and affixing of posters at the facilities in the project areas

	 Specification Paper: Vinyl Sticker, Size: 23'' x 17''		for creating awareness	
5	COVID-19 Poster  Specification Paper: 150 gsm Sticker, Size: 23'' x 17''	June 15, 2021 1,400 copies	Same as above	Community people. Distribution and affixing of posters at the important public places in the project areas.
6	COVID-19 Leaflet  Specification Paper: 100 gsm Art paper, Size:9.5" X 7"	June 15, 2021 71,500 copies	Same as above	Community people. Distribution of the leaflets to the community people through miking in the project areas.

Annex2

Tentative Plan of Operation

Version 0
Dated: 02/03/2017

The Project for Quality Improvement of Health Care Service Delivery in Bangladesh

Inputs	Year	1st Year				2nd Year				3rd Year				4th Year				5th Year				Remarks	Monitoring	
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV		Issue	Solution
Expert	1 2 3 4 5 6 7																							
1. Chief Advisor	Plan																							
	Actual																							
2. Non-Communicable Diseases	Plan																							
	Actual																							
3. Maternal and Neonatal Health	Plan																							
	Actual																							
4. Health Promotion	Plan																							
	Actual																							
5. Quality of Services in Health Facility	Plan																							
	Actual																							
6. Epidemiology/Research	Plan																							
	Actual																							
7. Project Coordinator	Plan																							
	Actual																							
Equipment																								
Equipment	Plan																							
	Actual																							
Vehicle	Plan																							
	Actual																							
Training in Japan																								
Non-Communicable Diseases	Plan																							
	Actual																							
Maternal and Neonatal Health	Plan																							
	Actual																							
In-country/Third country Training																								
Quality Improvement	Plan																							
	Actual																							

Annex2

Activities / Sub-Activities	Year	1st Year I	1st Year II	1st Year III	1st Year IV	2nd Year I	2nd Year II	2nd Year III	2nd Year IV	3rd Year I	3rd Year II	3rd Year III	3rd Year IV	4th Year I	4th Year II	4th Year III	4th Year IV	5th Year I	5th Year II	5th Year III	5th Year IV	Responsible Organization: Japan	Responsible Organization: GOB	Achievements	Issue & Countermeasures
Output 1: Integrated NCDs (Cardiovascular diseases (CVD) and Diabetes Mellitus (DM)) and Maternal Health services are delivered in the targeted areas																									
1-1 Conduct situation analysis on NCDs(CVD and DM)and MH (related to NCDs)	Plan																								
	Actual																								
1-2 Conduct facility (CCs, H&FWCs, Upazila Health Complexes (UHCs) and District hospitals(DHs)) assessment on NCD service delivery in the targeted areas	Plan																								
	Actual																								
1-3 Develop pilot NCD service guideline, protocol and training manual	Plan																								
	Actual																								
1-4 Implement the pilot NCD training in the targeted areas	Plan																								
	Actual																								
1-5 Try out the pilot NCD service delivery in the targeted areas (CCs/ H&FWCs, NCD screening, UZHCs/DHs: NCD screening &	Plan																								
	Actual																								
1-6 Monitor the pilot NCD service delivery in the targeted areas	Plan																								
	Actual																								
1-7 Revise the pilot NCD and MH (related to NCDs)services based on the experiences of pilot activities	Plan																								
	Actual																								
1-8 Finalize the NCD service to be expanded in other areas	Plan																								
	Actual																								
1-9 Standardize the NCD services to be provided throughout the country	Plan																								
	Actual																								
1-10 Organize ToT for NCD service expansion	Plan																								
	Actual																								
Output 2: Hospital management is strengthened for service quality improvement																									
2-1 Conduct hospital quality assessment by hospital Quality Improvement Committee (QIC) in the targeted areas	Plan																								
	Actual																								
2.2 Develop a quality improvement (QI) action plan based on the assessment at hospital level	Plan																								
	Actual																								
2.3 Implement the QI action plan by QIC and Work Improvement Team (WIT) (e.g., Strengthen the services of NCD comer) at hospital level	Plan																								
	Actual																								
2.4 Monitor implementation of the QI action plan by the hospital QIC	Plan																								
	Actual																								
2.5 Support the function of QI mechanism at District/Upazila level	Plan																								
	Actual																								
Output 3: NCD prevention activities are promoted in the targeted areas through working with community support groups																									
3.1 Assess the status of the activities of health promotion and Community Support Group (CSG)	Plan																								
	Actual																								
3.2 Conduct the Knowledge, Attitude, and Practice (KAP) survey in the targeted areas	Plan																								
	Actual																								
3.3 Design the project activity based on the assessment and KAP survey	Plan																								
	Actual																								
3.4 Update the CSG training manual to include NCD management	Plan																								
	Actual																								
3.5 Support national ToT for CSG	Plan																								
	Actual																								
3-6 Conduct CSG training (development of CSG action plan) in the targeted areas	Plan																								
	Actual																								
3-7 Implement the CSG action plan in the target areas (e.g., ensure access to health facilities, health check-up in the community organized by CSGs)	Plan																								
	Actual																								
3-8 Support resource mobilization mechanisms between CSGs/health facilities and local government bodies	Plan																								
	Actual																								
3-9 Monitor the CSG activities by the Core Team in the targeted areas	Plan																								
	Actual																								
3-10 Review the project activity	Plan																								
	Actual																								
3-11 Establish the CSG monitoring and support mechanism through Core Teams	Plan																								
	Actual																								
Output 4: Good practices and lessons learnt of the project are replicated																									
4-1 Conduct the baseline survey and end-line survey of the project	Plan	Baseline study														Endline study									
	Actual																								
4-2 Conduct the studies to identify good practices and lessons learned generated from the project	Plan																								
	Actual																								
4-3 Develop documents on good practices and lessons learnt of the project	Plan																								
	Actual																								
4-4 Disseminate good practices, outcomes and lessons learnt of the project among the policy makers and stakeholders	Plan																								
	Actual																								

Annex for MM, Draft R/D

Annex2

Monitoring/Reporting/Public Relations	Year	1st Year				2nd Year				3rd Year				4th Year				5th Year				Remarks	Issue	Solution
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV			
Monitoring																								
Joint Coordinating Committee	Plan																							
	Actual																							
Technical Working Group	Plan																							
	Actual																							
Set-up the Detailed Plan of Operation	Plan																							
	Actual																							
Submission of Monitoring Sheet	Plan																							
	Actual																							
Monitoring Mission from Japan	Plan																							
	Actual																							
Joint Monitoring	Plan																							
	Actual																							
Reporting																								
Semiannual Report	Plan																							
	Actual																							
Project Completion Report	Plan																							
	Actual																							
Public Relations																								
Launching seminar	Plan																							
	Actual																							
Dissemination seminar	Plan																							
	Actual																							

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Project Design Matrix

Version 1.0

Project Title: The Project for Strengthening Health Systems through Organizing Communities (SHASTO)
Implementing Agency: OP-SWPMM & HEF (Ministry) and NCDC, CBHC, HSM, L&HEP (DGHS)
Target Group: MOHFW officers/staff, health facilities/hospitals, and people in the Project Site
Period of Project: 29th July 2017 to 28th July 2022 (five years)
Project Site: Whole country with Dhaka city, Narsingdi and Cox's Bazar districts as pilot sites

Narrative Summary	Objective Verifiable indicators	Means of Verification	Important Assumptions	Achievement	Remarks
Overall Goal The health status of population in Bangladesh is improved.	1) National Prevalence rate of hypertension (over 20 years old, male 19%, female 32%, 2011→ No change, 2022) 2) Maternal Mortality Ratio (196, 2016→ 121, 2022) *Targets are in line with 4th Health, Population and Nutrition Sector Programme.	1) Government statistics 2) National survey/study			
Project Purpose The Non-Communicable Diseases (NCDs) and Maternal Health (MN) services are improved in an integrated manner.	1) the number of Upazila Health Complex (UZHC) using the standardized hypertension (HT) and Diabetes Mellitus (DM) protocol (0, 2017→ 200, 2022) 2) the proportion of target population (over 30 years old) received annual screening (# of clients received NCD screening in the past one year/# of target population) in the target areas (the areas where baseline data are collected). 3) Increase in the number of HT and DM patients receiving appropriate treatment and care regularly for at least past 6 months in the target areas. 4) Increase in the number of registered pregnant/ postpartum women with NCDs who are under NCD treatment in the target areas 5) Decrease in prevalence of risk factors (tobacco use, unhealthy diet, low physical activity) in the targeted areas. 6) Replicated good practices and lessons learnt of the Project	1) Government statistics 2) Project baseline/mid-line/end-line survey 3) Project monitoring data and report	1) 4th HPNSP (2017-2022) & subsequent programme are implemented as planned		
Outputs 1 Integrated NCDs (Cardiovascular diseases (CVD) and Diabetes Mellitus (DM)) and Maternal Health (MH) services are delivered in the pilot sites. 2 Hospital management is strengthened for service quality improvement. 3 NCD prevention activities are promoted in the pilot sites through working with community support groups. 4 Good practices and lessons learnt of	1) Increase in the number of HT and DM patients registered in the pilot sites 2) Proportion of health facilities (district hospital: DH, UZHC, and Community Clinic: CC) comply the standardized HT and DM protocol in the pilot sites (0, 2017→ 80%, 2022). 3) Increase in the number of referral NCDs cases from CC to UZHC in the pilot sites 4) % of hospitals (DH, UZHC) practicing PDCA/Kaizen approach in the pilot sites (Narsingdi and Cox's Bazar Districts) (0, 2017 to 70%, 2022) 5) Increase in the percentage of people knowing NCD risk	1) Project baseline/mid-line/ end-line survey 2) Project monitoring data and report	1) NCD program of the government is implemented as planned 2) Key counterparts do not leave their positions		

the Project are replicated.	factors in the target areas 6) Cases of collaboration for improving health services between health facilities and local government bodies (case study)				

Activities	Inputs		Pre-Conditions
1-1 Conduct situation analysis on NCDs services including service guideline, protocol and training manual. 1-2 Conduct situation analysis on NCDs related MH services including service guideline, protocol and training manual. 1-3 Conduct facility (CC, UZHC, DH and Urban Dispensary: UD) assessment on NCD service delivery in the pilot sites. 1-4 Develop pilot NCD intervention guideline, protocol and training manual 1-5 Implement the pilot NCD training in the pilot sites. 1-6 Try out the pilot NCD interventions in the pilot sites (CCs: NCD screening, UZHC/DH/UD: NCD screening & management). 1-7 Monitor the pilot NCD interventions in the pilot sites. 1-8 Revise the pilot NCD interventions based on the experiences of pilot activities. 1-9 Finalize the NCD intervention guideline and protocol to be expanded in other areas. 1-10 Standardize the NCD intervention guideline and protocol to be provided throughout the country. 1-11 Support the expansion of standardized NCD intervention in collaboration with partners. 2-1 Conduct hospital quality assessment by hospital Quality Improvement Committee (QIC) in the pilot sites. 2-2 Develop a quality improvement (QI) action plan based on the assessment by the hospitals (DH, UZHC). 2-3 Implement the QI action plan by Work Improvement Team (WIT) at hospital level. 2-4 Monitor implementation of the QI action plan by the hospital QIC. 2-5 Train hospital managers and staff on PDCA and Kaizen for advancement of QI activity. 2-6 Support the function of QI mechanism at National/District/ Upazila level.	Japanese side 1. Dispatch of JICA Experts - Chief Advisor - NCDs - MNH - Health Promotion - Quality of services in Health Facility - Epidemiology/Research - Coordinator 2. Training 3. Provision of Equipment 4. Rehabilitation and renovation of basic facilities/small infrastructures 5. Overseas Activity Costs	Bangladesh side 1. Assignment of counterpart and administrative personnel (1) Project Director (2) Project Managers (3) Project Managing Members (4) Officers and health personnel in the MOHFW engaged in the project activities 2. Project office facilities, equipment and materials 3. Local costs 4. Others	There is no drastic changes in political and security situation in Bangladesh.

3-1 Assess the status of the activities of health promotion and Community Support Group (CSG). 3-2 Update the CSG training manual to include NCD management. 3-3 Support national ToT for CSG. 3-4 Support organizing CSG training (development of CSG action plan) in the pilot sites. 3-5 Support Implementation of the CSG action plan in the pilot sites. 3-6 Support resource mobilization between CSGs/health facilities and local government bodies. 3-7 Monitor the CSG activities by the Core Team in the pilot sites. 3-8 Establish the CSG monitoring and support mechanism through Core Teams. 3-9 Facilitate mobilization of community activities in Dhaka city. 4-1 Compare the data of baseline, mid-line, and end-line survey of the Project. 4-2 Conduct the studies to identify good practices and lessons learnt generated from the Project and document them. 4-3 Reflect good practices, outcomes, and lessons learnt of the Project to national policies and strategies.			

Definition:

-NCDs for the Project refer to cardiovascular diseases (CVD) and Diabetes Mellitus (DM).

-Target areas refer to the areas where baseline data collection is carried out.

-NCD intervention guidelines is a comprehensive document that explains package of interventions for prevention, detection, treatment, and rehabilitation of specific NCDs or risk factors.

-NCD protocol means standard treatment procedure clarifying inclusion criteria of patients to treatment, standard method, responsible person and venue.

-Core Team Strategy is to strengthen monitoring and supervision of CC/Community Group (CG)/CSG by district/upazila “Core teams” that consist of health/family planning (FP) officers and field staff.

Abbreviation:

CBHC (Community Based Health Care), CC (community clinic), CG (Community Group), CSG (community support group), DGHS (Directorate General of Health Services), DM (Diabetes Mellitus), HEF (Health economics and finance), HPNSP (Health, Population and Nutrition Sector Programme), HSM (Hospital Services Management), HT (hypertension), L&HEP (Lifestyle & Health Education and promotion), MH (Maternal Health), MoHFW (Ministry of Health and Family Welfare), NCD (Non communicable disease), NCDC (Non Communicable Diseases Control), OP (Operational Plan), PDCA (Plan, Do, Check and Act), QI (Quality Improvement), QIC (Quality Improvement Committee),SWMM (Sector Wide Management and Monitoring), UD (Urban Dispensary), UZHC (Upazila Health Complex), WIT (Work Improvement Team)