

Report on

# Delivery of training on the World Health Organization Bangladesh Package of Essential Noncommunicable Disease Interventions for Primary Health Care Workers

August-September 2020 | Cox's Bazar, Bangladesh

**Submitted to:**

The World Health Organization  
– Health Emergency Office  
Cox's Bazar, Bangladesh

**Submitted by:**

BRAC James P Grant School of Public Health  
BRAC University  
10<sup>th</sup> -13<sup>th</sup> Floor, 66 Bir Uttam AK Khandakar Road,  
Mohakhali Commercial Area, Dhaka 1212, Bangladesh

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# 1. INTRODUCTION

## 1.1 Background

More than one million Rohingya, the forcibly displaced Myanmar nationals (FDMN), live in the refugee camps of the Cox's Bazar district of Bangladesh. Like other emergency responses, non-communicable diseases were not a priority initially. The Cox's Bazar district is also home to nearly 3 million Bangladeshi population. As reported by the recent STEPS survey and Bangladesh Demographic Health Survey, Bangladesh has a high burden of noncommunicable diseases (NCD) and associated risk factors. The Directorate General of Health Services (DGHS) of Bangladesh has declared Cox's Bazar a model district to prevent and control NCDs. Given the burden of NCDs, the WHO and other partners also established a non-communicable disease (NCD) core group to foster responses to NCDs and highlighted the need for providing additional training on NCDs to health care providers. The WHO has also identified the need for proactive, long-term, patient-centered, community-based and sustainable NCD care to be delivered through primary health care (PHC) teams to achieve impact against NCD at the population scale.

The WHO has developed a package of essential NCD interventions (WHO PEN) designed to be delivered by the PHC teams in low-resource settings. The package includes a prioritized set of cost-effective lifestyle and pharmacological interventions that can be delivered to prevent and control NCD. The package includes a reduction in tobacco and alcohol consumption, weight regulation, improved diet, increased physical activity, and pharmacological measures for prevention and control of NCD. In 2019, more than 100 primary health care providers were trained on the WHO PEN in collaboration with the NCDC and WHO Bangladesh, which was delivered by the BRAC James P Grant School of Public Health (JPGSPH). Besides, more than 300 community-level health workers and their supervisors were trained on 'NCD risk factors and behavioral interventions.'

Under the current Agreement for Performance, BRAC JPGSPH was contracted by the WHO to coordinate and facilitate the training on the package of essential non-communicable diseases (PEN) interventions to 150 doctors, nurses, and medical assistants/paramedics working in the Rohingya camps and in the Ukhia and Teknaf Upazila health complexes (UHC). The training objective was to enhance the knowledge, skills, and practices of primary health care workers in the early detection and appropriate management of hypertension and Type 2 Diabetes using a total comprehensive CVD risk-based approach. The four day training package was developed by WHO Bangladesh, adapted from the "Package of Essential Noncommunicable (PEN) disease and healthy lifestyle interventions – Training modules for primary health care workers" elaborated by WHO Regional Office for South-East Asia for the member states. The training incorporated sessions on Bangladesh's "National protocol for integrated management of hypertension and diabetes using a total cardiovascular risk approach in primary health

care settings.” The training also incorporated sessions to simulate the NCD service delivery and OSPE for hands-on evaluation of the skills learnt during the training.

## 1.2 The objective of the PEN training

As mentioned earlier, the training’s main objective was to enhance the capacity and skills of health care providers (doctors/nurses/paramedics) in Cox’s Bazar district on the implementation of PEN intervention in low resource primary health care settings, using a team-based approach. After the completion of the training, participants were expected to acquire the following competencies.

- Detect, manage and appropriately refer patients with cardiovascular diseases and diabetes
- Calculate and stratify cardiovascular risk using the WHO risk prediction chart
- Employ the 5A and 5R techniques to motivate positive behavioral change among individuals using tobacco, consuming unhealthy diets, and whose physical activity levels are low
- Demonstrate the use of basic diagnostics such as a handheld device to perform point of care tests such as blood glucose, and to measure blood pressure

After the training, all primary health centers (PHC) and UHCs that participated were required to develop a PEN implementation plan to deliver essential NCD services at their hospitals, apply the knowledge gained from the PEN training.

WHO contracted BRAC JPGSPH to deliver the training following a WHO developed training package. BRAC James P Grant School of Public Health, BRAC University, coordinated and facilitated the training in close collaboration with WHO and Noncommunicable Disease Control (NCDC), DGHS.

## 2. TRAINING PROGRAM DESCRIPTION

### 2.1 Training venue and duration

The training was conducted in four batches, and each batch consisted of 23-27 participants, i.e., doctors, nurses, and paramedics from the various international and national NGOs working at the Rohingya camps as well as from the different Government health facilities in the Ukhia and Teknaf Upazila of Cox’s Bazar. The training was conducted from 16<sup>th</sup> August to 23<sup>rd</sup> September 2020. The duration of the training for each batch was four days. All the training sessions were held at the Hotel Sea Palace, Cox’s Bazar, and the trainees resided in the Hotel Sea Palace, Cox’s Bazar, during the entire period of the training. Considering the COVID-19 pandemic, social distancing, mask-wearing, and hand hygiene were promoted during the training. Participants were provided with surgical masks and alcohol-based hand rub at the training venue in addition to the handwashing facilities. Most of the training was

conducted in an open space to prevent transmission of COVID-19. When indoor, the doors and window-panes were kept open to maintain airflow.

## 2.2 Trainers

WHO Bangladesh has provided five-day long Training of Trainers (ToT) on the WHO PEN intervention in February 2020 and helped in developing a pool of skilled PEN trainers. The ToT was conducted by technical experts from WHO and academia to enhance the knowledge and capacity of the PEN trainers. The pool comprised experienced trainers from the BRAC JPGSPH, BRAC, BIRDEM, JICA, MOHFW Coordination Cell and the WHO Emergency Sub-Office, Cox's Bazar. A team of trainers from BRAC JPGSPH and WHO Emergency Sub-Office, Cox's Bazar were selected based on availability and expertise for delivering the training sessions for this training programme. Other facilitators from the pool of trainers were contacted but could not join during this COVID-19 pandemic. In addition to delivering the sessions, the trainers contributed to preparing/finalizing each session presentation, shared the feedback and recommendations on the session/training after the training.

## 2.3 Participants

Nomination and communication with the expected participants were coordinated by Health Operations and Technical Expertise Unit, WHO Emergency Sub-Office, Cox's Bazar. At least one physician, one nurse, and one medical assistant/SACMO were nominated as training participants by the UHCs/PHCs and the implementing organizations to incorporate a team-based approach to implementing the PEN interventions at the Primary Health care settings. However, as similar trainings were imparted in 2019, some facilities sent less trainees as they already had trainees graduated in 2019. A total of 157 participants from the PHCs in the Rohingya refugee camps and the Upazila Health Complexes of the Cox's Bazar district attended the training. Of them, 63 were doctors, 34 were nurses, including midwives, and 60 were paramedics. The list of the organizations the participants came from are provided in Table 2.1, and the details of the training participants are given in Table 2.2.

**Table 2.1: List of participating organizations or health facilities**

<ol style="list-style-type: none"><li>1. International Organization of Migration (IOM)</li><li>2. International Rescue Committee (IRC)</li><li>3. Research, Training, and Management International (RTMI)</li><li>4. Partners in Health and Development (PHD)</li><li>5. HOPE Foundation</li><li>6. Upazilla Health Complex - Ukhiya and Teknaf</li><li>7. FWCs/UH&amp;FWC- Ukhiya and Teknaf</li><li>8. Union Sub-Center- Ukhiya and Teknaf</li></ol>
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**Table 2.2: Summary of the training participants by type and organizations**

<b>Batch</b>	<b>Organization (s)*</b>	<b>Doctors</b>	<b>Nurses/ midwife</b>	<b>Paramedics</b>	<b>Total</b>
1	IOM, RTMI	9	5	9	23
2	IOM, RTMI	8	10	9	27
3	IOM, RTMI, PHD, HOPE Foundation	9	6	12	27
4	IOM, RTMI, PHD, HOPE Foundation	16	2	9	27
5	UHC- Ukhiya, UHC-Teknaf, IOM, RTMI, PHD, HOPE Foundation	11	7	8	26
6	UHC- Ukhiya, UHC-Teknaf, IOM, RTMI, PHD, HOPE Foundation	10	4	13	27
<b>Total</b>		<b>63</b>	<b>34</b>	<b>60</b>	<b>157</b>

\*Please, see the acronyms in Table 2.1

## 2.4 Training sessions

The four-day “WHO Bangladesh PEN interventions for primary health care providers” training package consists of PowerPoint presentations for twelve modules, facilitator guides, and participant workbooks. This four-day training package covered both technical and practical aspects of the PEN and incorporate interactive teaching methodology (power-point presentations, reflections of personal experience, individual and group discussions, case studies, role plays, videos, brainstorming, practical demonstrations). Topics included orientation on PEN, NCD and its risk factors, CVD risk assessment, risk-based management of hypertension and diabetes mellitus and lifestyle counseling through 5A and 5R approach. Additionally, one simulation of service delivery at PHC and one “objective structured practical examination (OSPE)” session was conducted with this training package. The titles of the sessions and respective modules are listed in table 2.3. Moreover, the schedule of the training sessions has been provided as Annex 1.

PowerPoint presentations, and participant workbooks, were provided to the participants in hardcopies or as files in pen-drives for each health facility. Animated and pictorial PowerPoint presentation, group works, video demonstration, recap quiz, games, and open discussions were used to facilitate lively and spontaneous engagement of the participants in each session.

**Table 2.3: List of training modules and sessions**

<b>Modules</b>	<b>Sessions</b>
A	An overview of the NCD burden and PEN as a primary health care approach
B	Overview of NCDs: Cardiovascular diseases (CVD) and Diabetes Mellitus
C1	Risk factors for non-communicable diseases: Tobacco use
C2	Risk factors for non-communicable diseases: Unhealthy diet
C3	Risk factors for non-communicable diseases: Physical inactivity
C4	Risk factors for non-communicable diseases: Overweight and obesity
D1	Total cardiovascular risk-based approach
E	Assessment and Management of Hypertension
F	Assessment and Management of Type 2 Diabetes
G1	Healthy lifestyle: Basics of counseling
G2	Brief interventions for non-communicable disease risk factors: Tobacco cessation, healthy diet, physical activity, and treatment adherence
H1	Develop and present a team-based approach to implementing PEN intervention in the existing health facilities
	<b>Additional Session</b>
NA	Simulation of service delivery at PHC
NA	Objective Structured Practical Examination (OSPE)

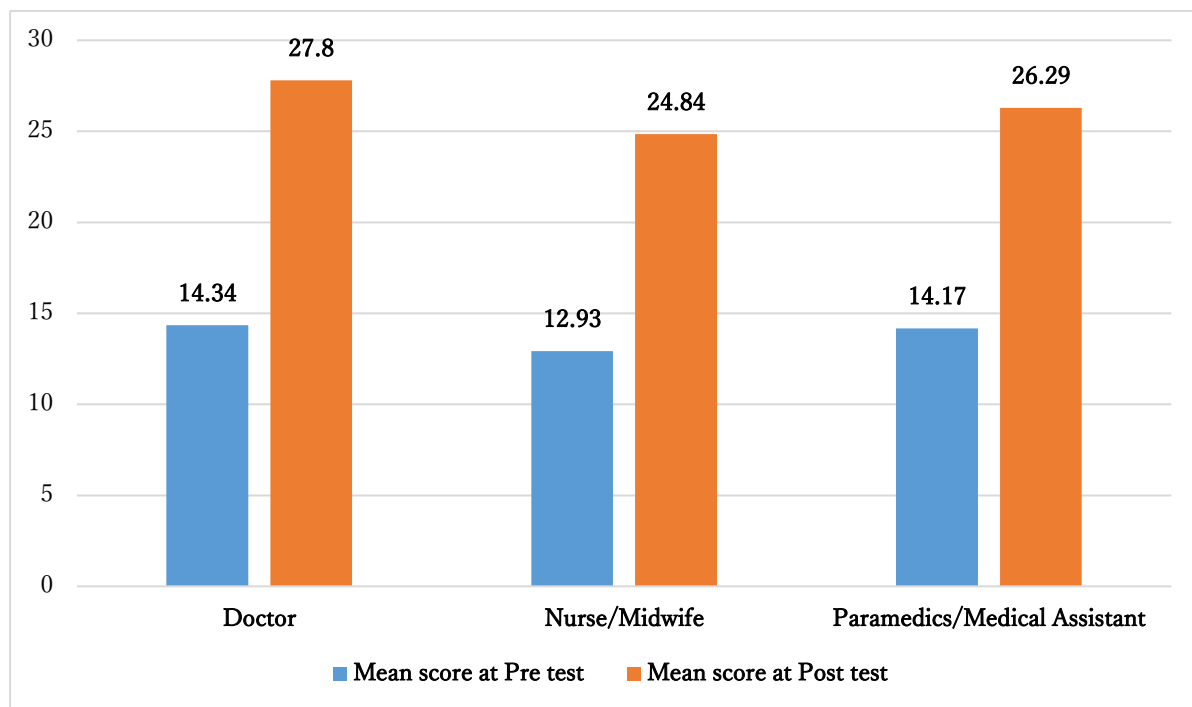
### 3. TRAINING KNOWLEDGE ASSESSMENT

At the beginning and the end of the training of each batch, participants were offered a test to assess their knowledge on NCDs and PEN interventions. The same set of 22 questions was used for both the assessments. We also conducted an objective structured practical examination (OSPE) at the end of the training to assess the skills and techniques learned throughout the training.

#### 3.1 Result of pre/post-test

As mentioned earlier, the participants underwent a pre- and post-test with 22 questions at the beginning and the end of the training, respectively. The objective of the pre- and post-test was to assess their knowledge of the training subjects before and after their participation at the training sessions. See the pre and post-test questionnaire as Annex-2. Figure 3.1 and 3.2a, 3.2b, 3.3c below illustrate a comparison of the average score and absolute score of different types of participants before and after the training. Improvement has been noticed in all groups of participants at the post-test. Out of the highest possible score of 30, the mean ( $\pm$ SD) score of the doctors was 14.3 ( $\pm$ 2.4) in the pre-test and 27.80 ( $\pm$ 1.13) in

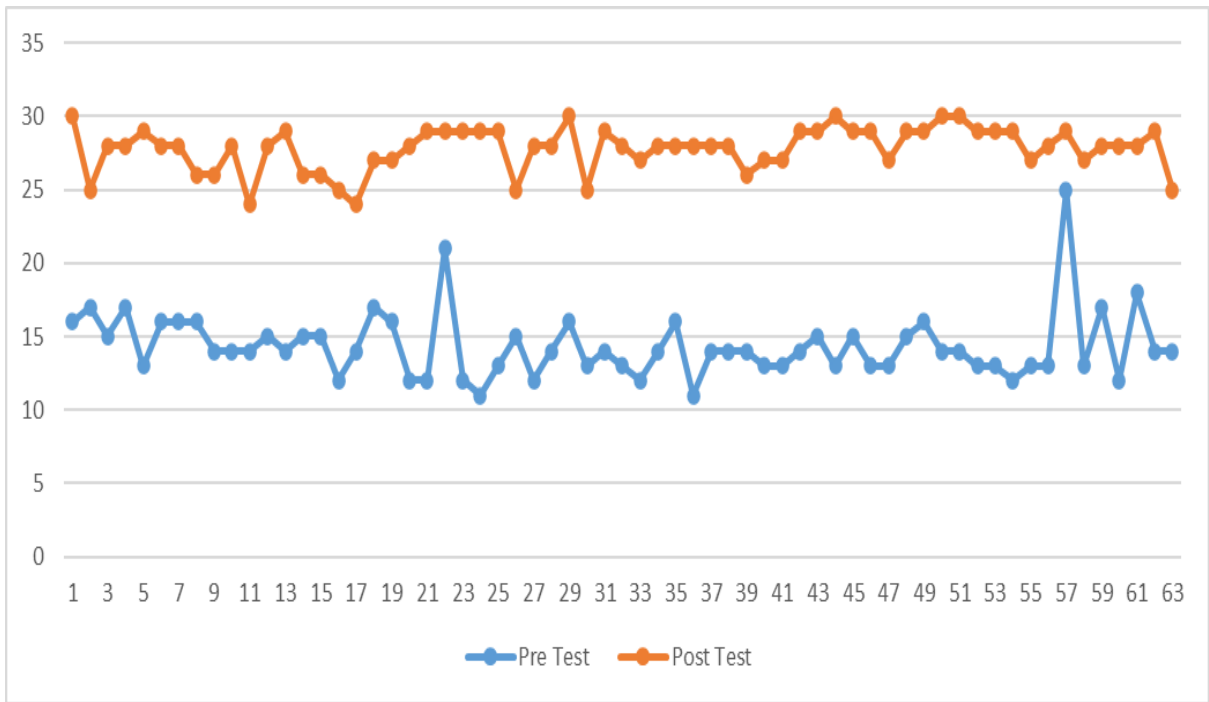
the post-test. The nurses and the midwives scored 12.93 ( $\pm 2.8$ ) in the pre-test and 24.84 ( $\pm 3.6$ ) in the post-test, and the paramedics scored 14.2 ( $\pm 3.6$ ) in pre-test and 26.3 ( $\pm 2.9$ ) in the post-test. Overall, the mean ( $\pm$ SD) score difference for all participants between the post-test and the pre-test was 12.39 ( $\pm 3.6$ ).



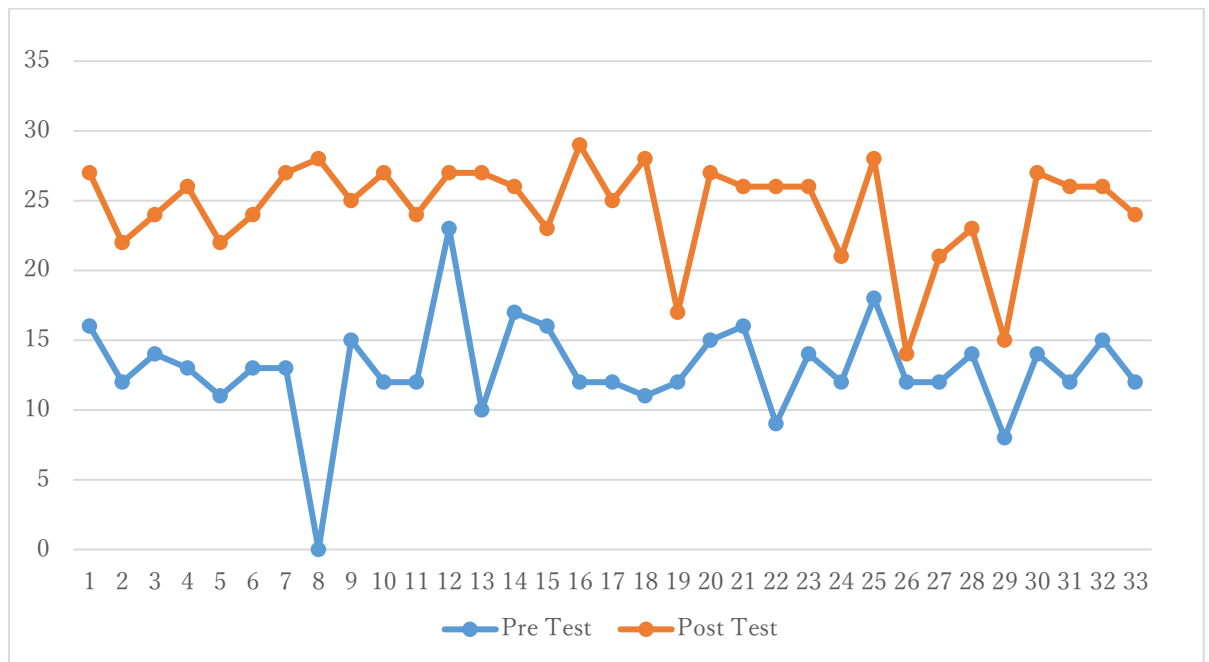
**Figure 3.1: Mean score at pre and post-test by type of trainee**

Figures 3.2a, 3.2b, and 3.2c below show that all the groups of participants have improved their knowledge (except one SACMO) through the training as all of them did better in the post-test compared to the pre-test.

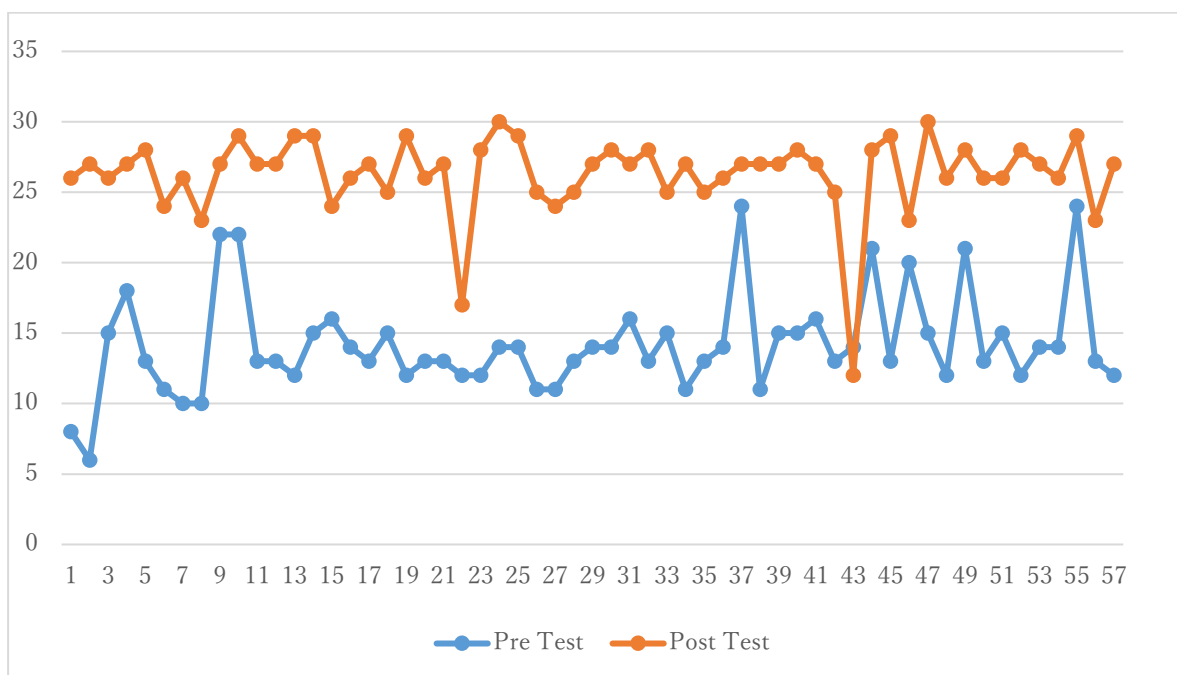




**Figure – 3.2a: Change of score of the doctors between pre and post test**



**Figure – 3.2b: Change of score of the nurses between pre and post-test**



**Figure 3.2c: Score changes of the paramedics (medical assistants/SACMO between pre and post-test**

On the last day of the training, we conducted an objective structured practical examination (OSPE) with five stations to evaluate the participants' acquired techniques and skills. We prepared four stations for each group of participants. The stations were – a) the measurement of height and weight, and calculation of BMI, b) Use of WHO CVD risk chart, and risk score estimation for patient management, c) measurement of BP, d) Treatment of hypertension and treatment of diabetes based on two case scenarios. Each participant was given 3 minutes to conduct the activities of a station. There was an examiner to rate their performance in each of the stations. Table 3.1 below compares the performance of each group of participants in the OSPE examination (mean score).

**Table 3.1: Performance of the participants in the OSPE test**

Occupation	Height Measurement (10)	Weight Measurement (10)	BMI Calculation (5)	BP Measurement (10)	CVD Risk Assessment (10)	Management Plan (A) (10)	Management Plan (B) (10)	Total Score (65)
<b>Doctor</b>	8.9	9.0	5.0	8.7	9.6	8.0	7.9	<b>57.4</b>
<b>Nurse</b>	7.8	7.9	4.5	8.2	7.1	3.8	3.3	<b>42.6</b>
<b>Paramedics</b>	8.6	8.6	4.7	8.6	8.1	5.9	4.8	<b>49.2</b>
<b>Overall</b>	8.6	8.7	4.7	8.6	8.6	6.4	5.8	<b>51.4</b>

\*3 training participants could not take the test

### 3.2 Training evaluation by the participants

At the end of each session during and on the last day of each batch, participants were requested to complete the prescribed evaluation form. Training evaluation forms are attached to this report as Annex – 3 below are some glimpses from the evaluation of the training by the participants.

**Table 3.2: Overall Evaluation of Training by the Participants (% of the participants)**

Total evaluation (n= 153)				
Question	Very confident	Confident	Somewhat Confident	A little confident
Confidence to apply 5A and 5R method to counsel patients	42.5	54.9	2.6	0.0
How confident to use WHO risk prediction chart	67.3	30.7	1.96	0.0
How confident to manage hypertensive patients using national guidelines?	61.8	32.9	4.6	0.6
How confident to manage diabetic patients using national guidelines?	54.9	41.7	3.5	0.0

In the overall training evaluation, which was taken at the end of the training (**Table 3.2**), 52.1% of participants responded that the training was beyond their expectations, and 47.1% of them said that the training met their expectations. Only 0.7% said that the training had somewhat met their expectations. When the participants were requested to comment on the overall quality of the training's logistical aspects (table 3.3), 83% said that the accommodation was either excellent or good, and 84% said that the provided foods were excellent or good. However, 93.2% and 99.3% of the participants said that communication and training materials were either excellent or good, respectively.

**Table 3.3: Evaluation of Foods and Logistics (% of the participants)**

Evaluation area	Excellent	Good	Average	Bad	Very Bad
Accommodation	40.4%	42.6%	14.2%	2.8%	0.0%
Foods	34.0%	49.7%	15.6%	0.7%	0.0%
Communication	59.9%	33.3%	6.1%	0.7%	0.0%
Training Materials	57.5%	41.8%	0.0%	0.7%	0.0%

### 3.3 Qualitative feedback from the trainees

As per the participants' comments at the end of the sessions, most of the training sessions were excellent and helpful for the participants, but there was some problem with time management and too much interruption made by the other facilitators while the key facilitator assigned for the session was facilitating. Below are some specific issues expressed by the fellow participants:

**Table 3.4: General comments**

**Time management**

- Time management could be improved. Some participants suggested a 5 to 6 day-long training.
- The time for some sessions should be shortened or can be divided into two more sessions.

**Venue**

- Most participants were fine with the venue.
- Regarding the open training space, there was a mixed reaction. Few participants suggested for an air-conditioned venue, but some actually liked the open space, especially the 5<sup>th</sup> batch.

**Contents**

- Most participants found the content very effective, relatable, useful, and of high standard.
- Most of the participants said that engagement, clarity, and coverage of the topics were superior and unique.
- Training was very interactive and practical.
- One pen drive for each participant.
- Need refresher training and regular follow-up.
- Should add other components of NCDs, such as chronic respiratory diseases and cancer.

## 4. TRAINER'S FEEDBACK: LEARNING & RECOMMENDATIONS

Participants' safety was a major concern for this training. Some trainees could not be engaged due to the restrictions during the pandemic. The following is the summary of trainers' feedback and recommendations for improvement of the training program.

### 4.1 Training module

- The time allocation of each module and session was OK. Time management of each session was critical.
- Most trainees showed an eagerness to learn new protocols and drug therapy. Although the trainers explained the issues carefully, a few participants had difficulty understanding, especially the midwives and SACMOs from the family planning department, who are not engaged with NCD service provision.
- Some sessions could be more customized for different categories of trainees (e.g., more practical exercises on clinical protocol/risk management for Medical Officers and more counseling practice for Nurses).
- The simulation session clarified the team approach. It was also an opportunity to reiterate the key steps/issues based on performance. The participants enjoyed the simulation sessions which could not be completed during the 2019 training.

### 4.2 Training implementation

- The training was challenging due to the COVID-19 situation. It could be completed as scheduled due to the participants' enthusiasm and support from WHO and other partners.
- All relevant materials/handouts/supporting documents/pen drives were timely available, and there was no problem with them.
- All trainers paid adequate attention to engage all participants to attend the training actively.
  - ✓ Situations for more active participation of each trainee need to be created.
  - ✓ More exercises/practical exercises in the session could help to make interactive and stimulate motivation to learn.
- Regular supportive supervision with on the job support at the facility level after the training is required to facilitate quality service delivery.
- An evaluation of training participants and their facilities is also required after a few months.

## 5. CONCLUSION

WHO's team-based training package of essential NCD interventions provides a high-quality training to build capacity of primary healthcare providers to implement PEN as part of the essential health service package in Bangladesh. Imparting the training during these difficult hours proves the commitment of WHO and the partner organizations, including the directorate general of health services, toward preventing and controlling NCDs in Bangladesh. It also demonstrated that a productive partnership and collaboration among different stakeholders can make a difference. The implementation of this training program should be expanded to other districts of Bangladesh.

Inviting different categories of PHC/UHC workers in a team is still a challenge. However, we did not observe any serious resistance from the participants. Instead, the training created understanding among the participants that the delivery of essential NCD services from PHC facilities, they need to work together and help each other. During the service delivery flow discussion, they could identify the gaps and opportunities in their current system. Each primary health care facility team proposed a feasible NCD service delivery model for the prevention and management of NCDs. The team divided the tasks and responsibilities of each category of staff, considering the existing resource limitations. The participants were requested to facilitate discussion within their organization and health facilities and devise a feasible service delivery model at their hospitals following the CVD risk-based approach.

Limitations of this training program were expressed already as feedback from trainees and trainers. Due to COVID 19 situation, it was very challenging to interact with the participants. Still, the outcomes of the training were deemed satisfactory. However, the real results will depend on how all the PHCs and UHCs implement the PEN and improve their service delivery. The unique implementation challenges in their respective health facilities will demand timely support from the government, WHO, and their supervisors. The NCDC and WHO Bangladesh should be committed to providing such supports with regular communication and encouragement. The BRAC James P Grant School of Public Health of BRAC University will also be committed to working with the government and WHO Bangladesh in the future.

## 6. WAY FORWARD

The WHO is promoting a 5X5 approach (5 diseases; CVD, Chronic respiratory diseases, T2D, Cancer and Mental Health Disorders, and 5 risk factors: unhealthy diet, tobacco consumption, alcohol consumption, physical inactivity, and indoor air pollution) and the future training program should also incorporate ways to strengthen PHC teams to deliver services for all these diseases and risk factors. Since Chronic respiratory diseases, mental health illnesses and air pollution are very prevalent in Bangladesh, including in the Rohingya camps, training on these issues should be rolled out in Cox's

Bazar as soon as the national guideline for COPD, Asthma and mental health is available.

BRAC JPGSPH considers the in-house training as a small stepping stone towards the NCD service delivery. The PEN's quality implementation will need regular supportive supervision at the facility level and systematic evaluation of knowledge, skill, and service quality. Also, the implementation challenges will be different in different settings. To overcome the challenges, the PHCs and UHCs may need resource support for all the building blocks of the health system, which can only be ensured if the management of different organizations appropriately understands the importance of PEN. BRAC JPSPH is eager to work with WHO to support capacity building of implementing partners on supportive supervision and PEN implementation.

Record-keeping is crucial for the appropriate management of NCDs. Proper documentation can increase commitment and accountability among the health care providers, improve the interaction between the providers and the patients, and improve adherence to the treatment and follow-up plan. The participants also showed their interest in a standardized recording system for the health facilities and a patient record book. WHO can facilitate a discussion among different partners to develop a record-keeping system for NCDs in a consultative process. BRAC JPG School of Public Health is developing a digital care coordination system to provide decision support to primary care providers for appropriate delivery of NCD care and improve record keeping. If WHO is interested, there is a scope to work together to implement this digital system for NCD care.

Providing training on CVD risk-based approach and hypertension and diabetes is a good start. Still, there is a need for a continued education program to support health care providers and help them not to feel isolated. There can also be subtle differences in the implementation models by different PHCs. These models need to be documented along with the outcomes of the training concerning the delivery of NCD services and its impact. The implementation models with accumulated lessons learnt need to be analyzed and used as examples while imparting training in other settings. For this purpose, high-level commitment and support of the Ministry of Health and Family Welfare, WHO and other development partners, research institutes, academic institutes, NGOs are indispensable.

## 7. ANNEX:

### Annex – 1: Name of the facilitators

Name of the session	Name of the facilitators, Organization
A. Overview of NCD burden and PEN as a primary health care approach to organizing and deliver essential NCD services through a team-based approach at a primary health care setting	Batch 1: Dr. Malay Mridha, BRAC JPGSPH
	Batch 2: Dr. Rina Paul, BRAC JPGSPH
	Batch 3: Dr. Rina Paul, BRAC JPGSPH
	Batch 4: Dr. Rina Paul, BRAC JPGSPH
	Batch 5: Dr. Rina Paul, BRAC JPGSPH
	Batch 6: Dr. Raisul Islam, WHO
B. Overview of NCDs: Cardiovascular diseases (CVD) and Diabetes Mellitus	Batch 1: Dr. Rina Paul, BRAC JPGSPH
	Batch 2: Dr. Nushrat Jahan Urmey, BRAC JPGSPH
	Batch 3: Dr. Ali Ahsan Hemel, BRAC JPGSPH
	Batch 4: Dr. Ali Ahsan Hemel, BRAC JPGSPH
	Batch 5: Dr. Ali Ahsan Hemel, BRAC JPGSPH
	Batch 6: Dr. Ali Ahsan Hemel, BRAC JPGSPH
C1. Risk factors for non-communicable diseases: Tobacco use	Batch 1: Dr. Nushrat Jahan Urmey, BRAC JPGSPH
	Batch 2: Dr. Nushrat Jahan Urmey, BRAC JPGSPH
	Batch 3: Dr. Nushrat Jahan Urmey, BRAC JPGSPH
	Batch 4: Dr. Ali Ahsan Hemel, BRAC JPGSPH
	Batch 5: Dr. Nushrat Jahan Urmey, BRAC JPGSPH
	Batch 6: Dr. Raisul Islam, WHO
C2. Risk factors for non-communicable diseases: Unhealthy diet	Batch 1: Dr. Rina Paul, BRAC JPGSPH
	Batch 2: Dr. Rina Paul, BRAC JPGSPH
	Batch 3: Dr. Rina Paul, BRAC JPGSPH
	Batch 4: Dr. Raisul Islam, WHO
	Batch 5: Dr. Rina Paul, BRAC JPGSPH
	Batch 6: Dr. Rina Paul, BRAC JPGSPH
C3. Risk factors for non-communicable diseases: Physical inactivity	Batch 1: Dr. Nushrat Jahan Urmey, BRAC JPGSPH
	Batch 2: Dr. Nushrat Jahan Urmey, BRAC JPGSPH
	Batch 3: Dr. Nushrat Jahan Urmey, BRAC JPGSPH
	Batch 4: Dr. Rina Paul, BRAC JPGSPH
	Batch 5: Dr. Nushrat Jahan Urmey, BRAC JPGSPH
	Batch 6: Dr. Ali Ahsan Hemel, BRAC JPGSPH
C4. Risk factors for non-communicable diseases: Overweight and obesity	Batch 1: Dr. Rina Paul, BRAC JPGSPH
	Batch 2: Dr. Nushrat Jahan Urmey, BRAC JPGSPH



Name of the session	Name of the facilitators, Organization
	Batch 3: Dr. Rina Paul, BRAC JPGSPH
	Batch 4: Dr. Ali Ahsan Hemel, BRAC JPGSPH
	Batch 5: Dr. Ali Ahsan Hemel, BRAC JPGSPH
	Batch 6: Dr. Nushrat Jahan Army, BRAC JPGSPH
D1. Total cardiovascular risk-based approach	Batch 1: Dr. Raisul Islam, WHO
	Batch 2: Dr. Rina Paul, BRAC JPGSPH Dr. Malay Mridha, BRAC JPGSPH
	Batch 3: Dr. Rina Paul, BRAC JPGSPH Dr. Ali Ahsan Hemel, BRAC JPGSPH
	Batch 4: Dr. Rina Paul, BRAC JPGSPH Dr. Raisul Islam, WHO
	Batch 5: Dr. Rina Paul, BRAC JPGSPH Dr. Ali Ahsan Hemel, BRAC JPGSPH
	Batch 6: Dr. Rina Paul, BRAC JPGSPH
D2. Measurement of total cholesterol and test of urine using urine strips	All Batches: Dr. Rina Paul, BRAC JPGSPH
E. Assessment and Management of Hypertension	Batch 1: Dr. Rina Paul, BRAC JPGSPH Dr. Malay Mridha, BRAC JPGSPH
	Batch 2: Dr. Rina Paul, BRAC JPGSPH Dr. Malay Mridha,, BRAC JPGSPH
	Batch 3: Dr. Rina Paul, BRAC JPGSPH
	Batch 4: Dr. Rina Paul, BRAC JPGSPH
	Batch 5: Dr. Rina Paul, BRAC JPGSPH
	Batch 6: Dr. Rina Paul, BRAC JPGSPH
F. Assessment and Management of Type 2 Diabetes	Batch 1: Dr. Rina Paul, BRAC JPGSPH Dr. Malay Mridha, BRAC JPGSPH
	Batch 2: Dr. Rina Paul, BRAC JPGSPH Dr. Malay Mridha, BRAC JPGSPH
	Batch 3: Ali Ahsan Hemel, BRAC JPGSPH
	Batch 4: Ali Ahsan Hemel, BRAC JPGSPH
	Batch 5: Ali Ahsan Hemel, BRAC JPGSPH
	Batch 6: Ali Ahsan Hemel, BRAC JPGSPH
G1. Healthy lifestyle: Basics of counseling	Batch 1: Dr. Nushrat Jahan Army, BRAC JPGSPH
	Batch 2: Dr. Nushrat Jahan Army, BRAC JPGSPH
	Batch 3: Dr. Rina Paul, BRAC JPGSPH
	Batch 4: Dr. Rina Paul, BRAC JPGSPH
	Batch 5: Dr. Nushrat Jahan Army, BRAC JPGSPH
	Batch 6: Dr. Nushrat Jahan Army, BRAC JPGSPH
G2. Brief interventions for non-communicable disease risk factors: Tobacco cessation, healthy diet and physical activity	Batch 1: Dr. Rina Paul, BRAC JPGSPH
	Batch 2: Dr. Rina Paul, BRAC JPGSPH
	Batch 3: Dr. Nushrat Jahan Army, BRAC JPGSPH
	Batch 4: Dr. Rina Paul, BRAC JPGSPH
	Batch 5: Dr. Rina Paul, BRAC JPGSPH
	Batch 5: Dr. Rina Paul, BRAC JPGSPH

Name of the session	Name of the facilitators, Organization
H1. Develop and present team-based approach of implementing PEN intervention in existing health facility	Batch 1: Dr. Malay Mridha, BRAC JPGSPH Dr. Raisul Islam, WHO
	Batch 2: Dr. Malay Mridha, BRAC JPGSPH
	Batch 3: Dr. Nushrat Jahan Urmey, BRAC JPGSPH
	Batch 4: Dr. Rina Paul, BRAC JPGSPH
	Batch 5: Dr. Rina Paul, BRAC JPGSPH
	Batch 6: Dr. Rina Paul, BRAC JPGSPH
Simulation of service delivery at PHC	Facilitators from BRAC JPGSPH, and WHO
OSPE	Facilitators from BRAC JPGSPH, and WHO

## Annex – 2: List of the participants

### Annex 2.1: Participants' list -Batch 1

<b>Sl No</b>	<b>Name</b>	<b>Designation</b>	<b>Organization</b>
1	Dr Jubayer Mumin	Medical Officer	IOM
2	Dr Maruf Murshed	Medical Officer	IOM
3	Dr Khushi Khisa	Medical Officer	IOM
4	Dr Nazifa Tazreen	Medical Officer	IOM
5	Dr Mustafizur Rahman	Medical Officer	IOM
6	Dr Asif Hannan	Medical Officer	IOM
7	Dr Basedur Rahman	Medical Officer	PHD
8	Dr Elias Hossain	Medical Officer	IOM
9	Dr Mijanur Rahman	Medical Officer	RTMI
10	Dipa Barai	Nurse	IOM
11	Rezina Khatun	Midwife	RTMI
12	Sunara Akter	Midwife	RTMI
13	Puja Sen	Nurse	IOM
14	Md. Nomanoor Alam	Nurse	IOM
15	Md. Abu Taleb	Medical Assistant	IOM
16	Ataur Rahman	Medical Assistant	IOM
17	Sammi Akter Liza	Medical Assistant	IOM
18	Sabrina Sibli	Medical Assistant	IOM
19	Monirul Islam	Medical Assistant	IOM
20	Moshiur Rahman	Medical Assistant	RTMI
21	Nasirul Islam	Medical Assistant	IOM
22	Abdulla al mamun	Medical Assistant	IOM
23	Momena Akter	Medical Assistant	IOM

**Annex 2.2: Participants' list -Batch 2**

<b>Sl No</b>	<b>Name</b>	<b>Designation</b>	<b>Organization</b>
1	Dr. Ginangshu Tanchangya	Medical Officer	IOM
2	Dr. Partho Pratim Sarker	Medical Officer	RTMI
3	Dr Md Ahasan Habib	Medical Officer	IOM
4	Dr Anisul Islam	Medical Officer	IOM
5	Dr Sydos Salman	Medical Officer	IOM
6	Dr RA Prul Sai Marma	Medical Officer	IOM
7	Dr Atyia Fatema	Medical Officer	IOM
8	Dr Tauhid Mahmood	Medical Officer	IOM
9	Salma Khatun	Midwife	RTMI
10	Papiya Talukder	Midwife	RTMI
11	Mst. Monika Akter	Nurse	IOM
12	MD Rashedul Islam	Nurse	IOM
13	Sanjida	Nurse	IOM
14	Most. Afsana Akter	Nurse	IOM
15	Sharifa Akter	Midwife	RTMI
16	Shoroshti Rani dhar	Nurse	IOM
17	Miss Shabana Akter	Nurse	IOM
18	Suma Sushoma Mbong	Nurse	IOM
19	Shaima Akter	Medical Assistant	PHD
20	Fatima Amin	Medical Assistant	IOM
21	Prasanta Barmon	Medical Assistant	IOM
22	Md. Shohanur Rahman Shobuj	Medical Assistant	IOM
23	Pamimal Kanti Samadder	Medical Assistant	IOM
24	Mst. Nasrin Khatun	Medical Assistant	RTMI
25	Md Sharif	Medical Assistant	IOM
26	Uzzal Halder	Medical Assistant	IOM
27	Mst. Nasrin Akter Simu	Medical Assistant	IOM

**Annex 2.3: Participants' list -Batch 3**

<b>Sl No</b>	<b>Name</b>	<b>Designation</b>	<b>Organization</b>
1	Samir Md Sefat	Medical Officer	IOM
2	Dr M A Ahad Talukder	Medical Officer	IOM
3	Masudar Rahman	Medical Officer	IOM
4	Partha Prathim Das	Medical Officer	IOM
5	Dr Amit Dhar	Medical Officer	IOM
6	Dr Anwar Hossain	Medical Officer	RTMI
7	Dr K M Amjad Hossain	Medical Officer	RTMI
8	Dr Ayub Hossain	Medical Officer	RTMI
9	Fahmida Alam	Medical Officer	PHD
10	Ruma Cakhma	Nurse	IOM
11	Rehana Khatun	Nurse	IOM
12	Johely Chakma	Nurse	IOM
13	Romana Ashrafi	Nurse	IOM
14	Mony Akter	Midwife	RTMI
15	Mortuja Julfika	Nurse	Hope Foundation
16	Jilhaque Hossain	Medical Assistant	IOM
17	Nurth Shafa	Medical Assistant	IOM
18	Harun Ar Rasid	Medical Assistant	IOM
19	Ananda Kishor Vhowmic	Medical Assistant	IOM
20	Nazmul Hasan	Medical Assistant	IOM
21	Sajon Das	Medical Assistant	RTMI
22	ChanChal Sarkar	Medical Assistant	RTMI
23	Nargis Akter	Medical Assistant	RTMI
24	Mojina Khatun	Medical Assistant	Hope Foundation
25	Mimi Akter	Medical Assistant	Hope Foundation
26	Sara Khatun	Medical Assistant	Hope Foundation
27	Prodip Bala	Medical Assistant	PHD

**Annex 2.4: Participants' list -Batch 4**

SI No	Name	Designation	Organization	Comments
1	Dr. Farzana Sultana	Medical Officer	IOM	
2	Dr. Nur E Tazalli	Medical Officer	IOM	
3	Dr. Enamul Haque	Medical Consultant	IOM	
4	Dr. Abdullah Al Mahi	Medical Officer	IOM	
5	Dr. Asif Ahmed Chowdhory	Medical Officer	IOM	
6	Dr. Uswri Ching Manmg	Medical Officer	IOM	
7	Dr. Sayantany Acharye	Medical Officer	IOM	
8	Dr. Fatema Rahman	Medical Officer	IOM	
9	Dr. Jannatul Ferdous	Medical Officer	RTMI	
10	Dr. Naymur Hasan	Medical Officer	RTMI	
11	Dr. Tanmoy Sarker	Medical Officer	RTMI	
12	Dr. Ilmika Nafsan	Medical Officer	RTMI	Completed with Batch 6
13	Dr. Masiyat Bintey Alam	Medical Officer	PHD	
14	Dr. Afroza Akter	Medical Officer	Hope Foundation	
15	Dr. Nusrat Jahan	Medical Officer	Hope Foundation	
16	Dr. Tasnova Islam	Medical Officer	Hope Foundation	
18	Md. Mahedi Hasan	Nurse	IOM	
17	Sarmin Nahar	Midwife	RTMI	
19	Md Nurul Hasnat	Medical Assistant	IOM	
20	Samira Chakma	Medical Assistant	IOM	
21	Md. Yeasin Arafat	Medical Assistant	IOM	
22	Riad Hossain	Medical Assistant	IOM	
23	Pampi Sharma Sarmeli	Medical Assistant	IOM	
24	Abu Ahmed Fazle Elahi	Medical Assistant	RTMI	
25	Barnik Paul	Medical Assistant	RTMI	
26	Md.Rafiqul Islam	Medical Assistant	PHD	
27	Mukul Hossain	Medical Assistant	PHD	

**Annex 2.5: Participants' list -Batch 5**

Sl No	Name	Designation	Organization	Comments
1	Dr. Afia Jahan	Medical Officer	DGHS	
2	Dr. Sumona Rashid	Medical Officer	DGHS	
3	Dr. Md. Mohiuddin	Medical Officer	IOM	
4	Dr. Md. Moynul Hossain	Medical Officer	IOM	
5	Dr. Mohammad Saiful Islam	Medical Officer	IOM	
6	Dr. Fahad Bin Hossain	Medical Officer	IOM	
7	Dr. Topan deb Nath	Medical Officer	IOM	
8	Dr. Khanam Meratul Kamar	Clinical Incharge	RTMI	
9	Dr. Salman Rahman	Medical Officer	RTMI	
10	Dr. Mahmuda Afrin	Medical Officer	RTMI	
11	Dr. Md. Iftekhar Ul Alam	Medical Officer	PHD	
12	Fatema Bahar	SSN	DGHS	Incomplete
13	Shirin Jahan	SSN	DGHS	
14	Suparna Barua	Nurse	IOM	
15	Juliya Sultana	Nurse	Hope Foundation	
16	Tanzuma Akter	Nurse	Hope Foundation	
17	Jeasmin Akter	SSN	Hope Foundation	
18	Sumaya Parvin	Nurse	PHD	
19	Mahmudul Hasan	SACMO	DGHS	Incomplete
20	Sultana Razia Sumi	SACMO	DGHS	
21	Kajal Kanti Dey	SACMO	DGHS	
22	Md. Sayful Islam	SACMO	DGFP	Incomplete
23	Ropan Kumar	SACMO	DGFP	
24	Md. Aman Ullah	SACMO	DGFP	
25	Anam Ahmed	Medical Assistant	RTMI	
26	Rifat Mahmud	Medical Assistant	PHD	

**Annex 2.6: Participants' list -Batch 6**

<b>Sl No</b>	<b>Name</b>	<b>Designation</b>	<b>Organization</b>	<b>Comments</b>
1	Dr. Sakia Haque	Medical Officer	DGHS	
2	Dr. Mohi Uddin Mohin	Medical Officer	DGHS	
3	Dr. Shubhra Deb	Assistant Surgeon	DGHS	
4	Dr. Syed Sunny	Medical Officer	IOM	
5	Dr. Sing Mong Prue Marma	Medical Officer	IOM	
6	Dr. Md. Imran Hossain	Medical Officer	IOM	
7	Dr. Farhanaz Rahman	Clinical Incharge	IOM	
8	Dr. A. H. M. Masraqur Rahman	Medical Officer	RTMI	
9	Dr. Israt Jahan	Medical Officer	RTMI	
10	Dr. Sk. Sabrina Ali	Medical Officer	PHD	
11	Bina Chakma	SSN	DGHS	
12	Foibee Hawee	SSN	DGHS	
13	Ripa Rozario	Nurse	IOM	
14	Jannatun Ferdous	Nurse	PHD	
15	Rahat Sultana	SACMO	DGHS	
16	Azad Md. Nurul Hossain	SACMO	DGHS	
17	Amina Akter Pinkey	Medical Assistant	RTMI	
18	Md. Morshalin Ali	Medical Assistant	IOM	
19	Md. Nazmul Islam Naiem	Medical Assistant	IOM	
20	Abdul Wadud	Medical Assistant	IOM	
21	Abdus Sattar	Medical Assistant	IOM	
22	Md. Mahatab Hossain	Medical Assistant	IOM	
23	Mhammad Jahangir Alam	Medical Assistant	IOM	
24	Arifa Afshana Shopna	Medical Assistant	RTMI	
25	Israt Islam	Medical Assistant	RTMI	
26	Nasrin Akter	Medical Assistant	PHD	
27	Bishawjit Halder	Medical Assistant	PHD	



## TRAINING AGENDA

### Training on package of essential non-communicable diseases (PEN) interventions for primary health service providers

Cox's Bazar

August-September 2020

Day 1		
Time	Activity	
08:15-08:30	Registration	
08:30 -9:15	Inauguration, introduction and ice breaking, training objectives and ground rules	
9:15-9:45		Pre-test
9:45 -10:00	<b>Healthy Break</b>	
10.00- 11.45	<b>Module A</b>	A. An overview of NCD burden and PEN as a primary health care approach to delivering essential NCD services and organizing NCD services through a team-based approach
11:45 -13:00	<b>Module B</b>	B. Overview of Cardiovascular diseases (CVD)
13:00 -14:00	<b>Lunch &amp; prayer break</b>	
14:00- 14:10	<b>Energizer Dance</b>	
14:10 -15.30	<b>Module C</b>	C1. Risk factors for non-communicable diseases: Tobacco use
15.30- 15.45	<b>Healthy Break</b>	
15:45- 17.00	<b>Module C</b>	C2. Risk factors for non-communicable diseases: Unhealthy diet

Day 2		
Time	Activity	
08:30 -09:00		<b>Recap</b>
09.00- 10.15	<b>Module C</b>	C3. Risk factors for non-communicable diseases: Physical inactivity
10.15- 10.30	<b>Healthy Break</b>	
10.30- 12.00	<b>Module C</b>	C4. Risk factors for non-communicable diseases: Overweight and obesity
12.00- 13.00	<b>Module D</b>	D1. Total cardiovascular risk-based approach
13:00 -14:00	<b>Lunch &amp; prayer break</b>	
14:00- 14:10	<b>Energizer Dance</b>	
14:10 -15:10	<b>Module D</b>	D1. Total cardiovascular risk-based approach (continued)
15:10 -15:25	<b>Healthy Break</b>	
15.25- 16.00	<b>Module D</b>	D1. Total cardiovascular risk-based approach (continued)
16.00-17.00	<b>Module D</b>	D2. Total cholesterol and test of urine using urine strips

## TRAINING AGENDA

### Training on package of essential non-communicable diseases (PEN) interventions for primary health service providers

Cox's Bazar

August-September 2020

Day 3		
Time	Activity	
08:30 -09:00		Recap
09:00 -10:45	<b>Module E</b>	E. Assessment and Management of Hypertension
10.45- 11.00	<b>Healthy Break</b>	
11.00- 13.00	<b>Module F</b>	F. Assessment and Management of Type 2 Diabetes
13:00 - 14:00	<b>Lunch &amp; prayer break</b>	
14:00- 14:10	<b>Energizer Dance</b>	
14:10 -15:15	<b>Module G</b>	G1. Healthy lifestyle: Basics of counseling
15:15 -15:30	<b>Healthy Break</b>	
15:30 -17:00	<b>Module G</b>	G2. Brief interventions for non-communicable disease risk factors: Tobacco cessation, healthy diet and physical activity

Day 4		
Time	Activity	
08:30 -9:00		Recap
9:00 -10:45	<b>Module H</b>	H1. Develop and present team-based approach of implementing PEN intervention in existing health facility
10:45 -11:00	<b>Healthy Break</b>	
11:00 -12:30	<b>Module H</b>	H2. Simulation of service delivery in the PHC
12:30 - 13:30	<b>Lunch &amp; prayer break</b>	
13:30 -15:30	<b>Evaluation</b>	<ul style="list-style-type: none"> <li>• Evaluation: Objective Structured Practical Examination (OSPE)</li> <li>• Post-test and evaluation</li> </ul>
15:30 -15:45	<b>Healthy Break</b>	
15:45 -16:15	<b>Closing</b>	Closing and certificate distribution

## Annex – 4: Pre/post-test questions



### Training on Bangladesh Package of Essential Noncommunicable Disease Interventions (PEN) for Primary Health Care Pre-Training Assessment/Post-training Assessment

**Time: 20 minutes**

Trainee Name: _____	Designation: _____	Date: __/__/2020
Name of the healthcare facility: _____		Batch: _____

#### **Read the following Case Scenario and answer the following questions**

[নিচের গল্পটি পড়ে প্রশ্নগুলোর উত্তর দিন।]

Mst. Lutfa Begum, 64-year-old women presents again to the Upazila Health Complex. Two weeks ago, she came for a runny nose and her blood pressure was 154/86 mmHg. Today, her blood pressure is measured again, and it is 152/88 mmHg.

Lutfa weighs 74kg and she is 5 feet 5 inches tall (1.68 meters). Her waist circumference is 94 cm.

Lutfa was diagnosed with diabetes two years ago but she stopped taking the prescribed medication after 1 year. Her random plasma glucose today is 14 mmol/L. Her cholesterol level is 5.2 mmol/L.

Lutfa tells the health care worker that she chews betel nut, but never smokes, although her husband smokes cigarettes every day in the house around her 2 grandchildren – her grandson ages 16 yrs and her granddaughter ages 10 yrs. Every afternoon, she goes for a brisk walk for 10 minutes around the neighborhood with her grandson.

She is a little concerned about her weight, and her brother died at the age of 43 from a heart attack. She eats one orange a day, and really likes soft drinks, cake and rice with *sutki vorta*.

[মোছাঃ লুতফা বেগম, ৬৪ বছর বয়স উপজেলা স্বাস্থ্য কমপ্লেক্সে এসেছেন। ২ সপ্তাহ আগেও তিনি সর্দি নিয়ে এসেছিলেন তখন তার রক্তচাপ ছিল ১৫৪/৮৬ মিলি মিটার মার্কারি। আজ তার রক্তচাপ পাওয়া গেছে ১৫২/৮৮ মিলি মিটার মার্কারি।

লুতফার ওজন ৭৪ কেজি এবং তার উচ্চতা ৫ ফিট ৫ ইঞ্চি (১.৬৫ মিটার)। তার কোমরের পরিধি (waist circumference) ৯৪ সে.মি.। লুতফার ২ বছর আগে ডায়াবেটিস রোগ নির্ণয় হয়েছিল, কিন্তু ১ বছর পর তিনি ডায়াবেটিসের ঔষধ খাওয়া ছেড়ে দিয়েছেন। আজ তার রক্তের র্যানডোম গ্লুকোজের (random plasma glucose) পরিমাণ ১৪ মিলিমোল/লিটার। তার কোলেস্টেরল এর পরিমাণ ৫.২ মিলিমোল/লিটার।

লুতফা স্বাস্থ্যকর্মীকে জানিয়েছেন যে, তিনি সুপারি খান কিন্তু কখনও ধূমপান করেননি। বাড়িতে তার স্বামী প্রতিদিন তাদের দুই নাতিনাতির সামনে ধূমপান করেন। তাদের নাতির বয়স ১৬ বছর এবং নাতির বয়স ১০ বছর। প্রতিদিন বিকালে লুতফা তার নাতির সাথে বাড়ির আশেপাশে ১০ মিনিট হেঁটে বেড়ান।

তিনি তার ওজন নিয়ে কিছুটা চিন্তিত এবং তার ভাই ৪৩ বছর বয়সে হার্ট অ্যাটাকে মারা গেছেন। তিনি প্রতিদিন একটা কমলা খান এবং কোমল পানীয়, কেক, ভাত ও শুটকি ভর্তা তার অনেক পছন্দ। ]

**Answer the following questions:** [নিচের প্রশ্নগুলোর উত্তর দিন]

1. Lutfa's risk of having a fatal heart attack or stroke in the next 10 years is: [আগামী ১০ বছরে লুতফার হার্ট অ্যাটাক অথবা স্ট্রোকের ঝুঁকি কত?] (circle)
  - a) <10% [ <১০%]
  - b) 10-<20% [১০% - <২০%]
  - c) 20-<30% [২০% - <৩০%]
  - d) 30-<40% [৩০% - <৪০%]
  - e) >40% [ >৪০%]
2. Considering Lutfa's weight and height, she is: [লুতফার উচ্চতা এবং ওজন অনুযায়ী তার পুষ্টির অবস্থা] (circle)
  - a) Underweight [কম ওজন]
  - b) Normal weight [স্বাভাবিক ওজন]
  - c) Overweight [অতিরিক্ত ওজন]
  - d) Obese [স্থূলতা]
3. If Lutfa's diabetes remains uncontrolled, she is at risk of foot ulcers and amputation. [যদি লুতফার ডায়াবেটিস অনিয়ন্ত্রিত থাকে, তবে, তার পায়ে ঘা এবং অঙ্গহানির ঝুঁকি আছে।] (circle)
  - a) True [সত্য]
  - b) False [মিথ্যা]
4. Lutfa should be diagnosed with hypertension [লুতফার উচ্চ রক্তচাপ রোগ সনাক্ত হওয়া উচিত] (circle)
  - a) True [সত্য]
  - b) False [মিথ্যা]
5. Lutfa's target for blood pressure control will be  $\leq 140/90$  mmHg: [লুতফার রক্ত চাপ নিয়ন্ত্রনের লক্ষ্যমাত্রা  $\leq 140/90$  মিলি মিটার মার্কারি] (circle)
  - a) True [সত্য]
  - b) False [মিথ্যা]
6. Lutfa and her grandchildren are being exposed to secondhand smoke [লুতফা এবং তার নাতি নাতনি পরোক্ষ ধূমপানের শিকার] (circle)
  - a) True [সত্য]
  - b) False [মিথ্যা]
7. Lutfa's family history of a heart attack is also a risk factor for her having a heart attack of stroke. [লুতফার হার্ট অ্যাটাকের পারিবারিক ইতিহাস তার জন্যও হার্ট অ্যাটাকের ঝুঁকি হিসাবে কাজ করেছে।] (circle)
  - a) True [সত্য]
  - b) False [মিথ্যা]
8. Currently Lutfa is meeting the recommended physical activity guidelines for adults [লুতফার বর্তমানে হাঁটার অভ্যাস প্রাপ্তবয়স্কদের শারীরিক পরিশ্রমের গাইডলাইন অনুযায়ী পর্যাপ্ত] (circle)
  - a) True [সত্য]
  - b) False [মিথ্যা]
9. Which of following foods that Lutfa likes are high in salt? [লুতফার পছন্দের নিচের কোন খাবারটি অতিরিক্ত লবনযুক্ত?] (circle)

- a) Orange [কমলা]  
 b) Sodas [কোমল পানীয়]  
 c) Cake [কেক]  
 d) *Sutki vorta* [শুটকি ভর্তা]
10. The maximum recommended intake of salt is 2 teaspoons per day. [প্রতিদিন সর্বোচ্চ ২ চা চামচ লবন খাওয়ার সুপারিশ করা হয়েছে] (circle)  
 a) True [সত্য]  
 b) False [মিথ্যা]
11. Women of childbearing age having possibility of becoming pregnant should not be prescribed Losartan to control hypertension [সন্তান জন্মদানের বয়স সীমার মধ্যে যেসব মহিলার গর্ভবতী হবার সম্ভাবনা আছে তাদের উচ্চ রক্তচাপের ঔষধ হিসেবে লোসারটান দেয়া উচিত নয়] (circle)  
 a) True [সত্য]  
 b) False [মিথ্যা]
12. Hydrochlorothiazide is the first line choice of drug to treat hypertension in primary health care in Bangladesh [বাংলাদেশের প্রাথমিক স্বাস্থ্যসেবা কেন্দ্রগুলোতে উচ্চ রক্তচাপের চিকিৎসায় হাইড্রোক্লোরোথায়াজাইড প্রথম পছন্দের ঔষধ হিসেবে নির্ধারিত] (circle)  
 a) True [সত্য]  
 b) False [মিথ্যা]
13. Metformin is the first line drug of choice for managing Type II diabetes in primary health care setting [বাংলাদেশের প্রাথমিক স্বাস্থ্যসেবা কেন্দ্রগুলোতে টাইপ ২ ডায়াবেটিসের চিকিৎসায় মেটফরমিন, ডায়াবেটিসের প্রথম পছন্দের ঔষধ হিসেবে নির্ধারিত] (circle)  
 a) True [সত্য]  
 b) False [মিথ্যা]
14. Patients with diabetes should have an eye exam every 3 years [ডায়াবেটিসের রোগীদের প্রতি তিন বছর পর পর চোখ পরীক্ষা করা উচিত] (circle)  
 a) True [সত্য]  
 b) False [মিথ্যা]
15. Patients presenting with blood pressure >200/120 mmHg should be urgently referred to a higher facility [কোন রোগীর রক্তচাপ > ২০০/১২০ মিমি মার্কারি পাওয়া গেলে তৎক্ষণাত্ তাকে উচ্চতর স্বাস্থ্য সেবা কেন্দ্রে রেফার করা উচিত] (circle)  
 a) True [সত্য]  
 b) False [মিথ্যা]
16. Tobacco kills approximately one third of its users: [তামাক ব্যবহারকারীদের এক তৃতীয়াংশই এটি সেবনের কারণে মারা যায়] (circle)  
 a) True [সত্য]  
 b) False [মিথ্যা]
17. How much fruits and vegetables should be eaten every day? [প্রতিদিন কি পরিমাণে ফল ও শাকসবজি খাওয়া উচিত?]  
 a) 100gm [১০০ গ্রাম]

- b) 200gm [২০০ গ্রাম]
- c) 400gm [৪০০ গ্রাম]
- d) 800gm [৮০০ গ্রাম]

18. Jorda, Sada pata are not as harmful as *bidi*, cigarettes. [জর্দা, সাদা পাতা বিড়ি সিগারেটের মতো অতটা ক্ষতিকর নয়। ]

- a) True [সত্য]
- b) False [মিথ্যা]

19. Diabetes can be preventable in 80% cases. [৮০ ভাগ ডায়াবেটিস প্রতিরোধ করা সম্ভব। ]

- a) True [সত্য]
- b) False [মিথ্যা]

20. Brief interventions are expensive and not effective ways to support persons to change behaviors, like stopping smoking [সংক্ষিপ্ত কাউন্সেলিং বা ব্রিফ ইন্টারভেনশন ব্যক্তির আচরণ পরিবর্তন করতে সহায়তা করার জন্য, যেমন ধূমপান ছেড়ে দেয়ার জন্য কার্যকরী নয়] (circle)

- a) True [সত্য]
- b) False [মিথ্যা]

21. In brief Intervention Model, the 5 As are: [সংক্ষিপ্ত কাউন্সেলিং মডেলে ফাইভ এ কাউন্সেলিং এর ধাপগুলো লিখুন] (5 marks)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

22. In Brief Intervention Model, the 5Rs are: [সংক্ষিপ্ত কাউন্সেলিং মডেলে ফাইভ আর কাউন্সেলিং এর ধাপগুলো লিখুন] (5 marks)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

## Annex -5: Training evaluation forms



### Training on package of essential non-communicable diseases (PEN) interventions for primary health care providers

#### Training Evaluation Form

#### Overall

Name: \_\_\_\_\_ Batch: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/2020

(you might skip the name here if you want to give anonymous feedback)

1. রোগীদের অস্বাস্থ্যকর আচরণ পরিবর্তনে সহায়তা করতে ফাইভ এ এবং ফাইভ আর পদ্ধতি ব্যবহারে আপনি কতটা আত্মবিশ্বাসী? সঠিক উত্তর গোল করুন [How confident you are to apply the 5A's and 5R's technique to support patients to change their unhealthy behavior? Circle]

Not Much	A little	Somewhat confident	Confident	Very Confident
1	2	3	4	5

2. WHO risk prediction chart ব্যবহার করতে আপনি কতটা আত্মবিশ্বাসী? সঠিক উত্তর গোল করুন [How confident you are to use the WHO risk prediction chart?] [Circle]

Not Much	A little	Somewhat confident	Confident	Very Confident
1	2	3	4	5

3. জাতীয় নির্দেশিকা ব্যবহার করে উচ্চরক্তচাপের ব্যবস্থাপনা করতে আপনি কতটা আত্মবিশ্বাসী? সঠিক উত্তর গোল করুন [How confident you are to manage hypertensive patient based on the national guideline? Circle]

Not Much	A little	Somewhat confident	Confident	Very Confident
1	2	3	4	5

4. জাতীয় নির্দেশিকা ব্যবহার করে ডায়াবেটিসের ব্যবস্থাপনা করতে আপনি কতটা আত্মবিশ্বাসী? সঠিক উত্তর গোল করুন [How confident you are to manage Diabetic patients based on the national guideline? Circle]

Not Much	A little	Somewhat confident	Confident	Very Confident
1	2	3	4	5

5. এই প্রশিক্ষণ আপনার প্রত্যাশা কতটা পূরণ করেছে? সঠিক উত্তর গোল করুন [How much the training met your expectations? Circle]

Not Much	A little	Somewhat	Met expectations	Exceeded expectations
1	2	3	4	5

6. কোন সেশনগুলো আপনার সবচেয়ে ভাল লেগেছে? ভালোর ক্রম অনুসারে লিখুন [Please mention below the session(s) you enjoyed most]

- a) \_\_\_\_\_  
b) \_\_\_\_\_  
c) \_\_\_\_\_  
d) \_\_\_\_\_

7. কোন সেশনগুলো আপনার তেমন ভাল লাগেনি? খারাপ লাগার ক্রম অনুসারে লিখুন [Please mention below the session(s) you did not enjoy that much]

- a) \_\_\_\_\_  
b) \_\_\_\_\_  
c) \_\_\_\_\_  
d) \_\_\_\_\_

8. কোন বিষয়গুলো আরো ভালো হতে পারতো? [List of things that could have been better]

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. ট্রেনিং এর মান ও বিষয় নিয়ে সাধারণভাবে আপনার মন্তব্য লিখুন [Any general comment or suggestion on training quality and content]

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. Foods and logistics [Please comment on the overall quality of training logistics (tick in the appropriate column for each area)]

AREA	EXCELLENT	GOOD	AVERAGE	BAD	VERY BAD
ACCOMMODATION					
FOODS					
COMMUNICATION					
TRAINING MATERIALS					



11. Please give your suggestions for improvement in the area of training accommodation, foods, materials, and other logistics arrangements for future training.

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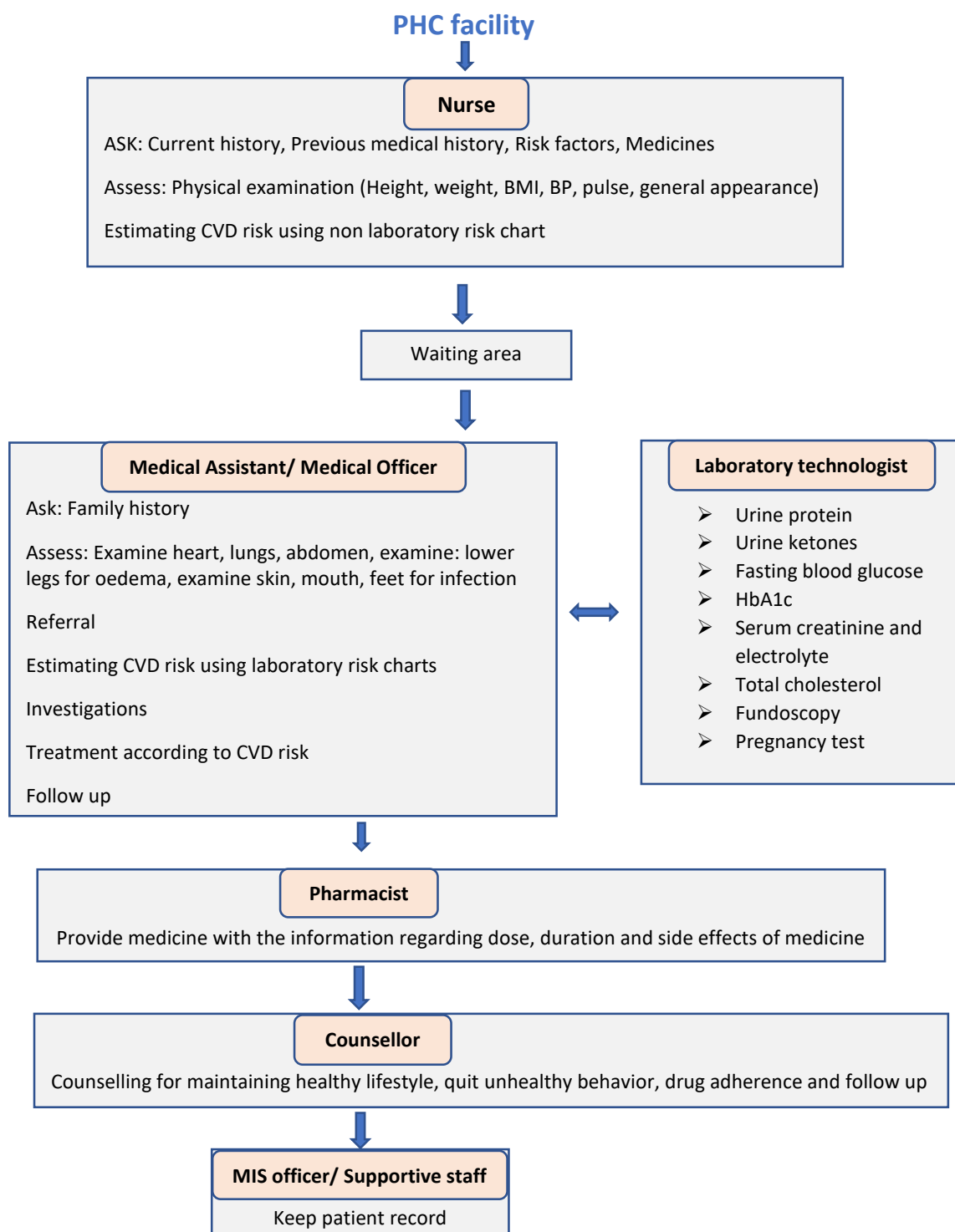
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## Annex -6: NCD patient flow-chart in the PHCs





Annex -8: Sample format for NCD register in the PHC

SL #	Date	FDMN ID	Patient ID	Name	M/F /O	Age (Y)	New /FU	BP	FBS/RBS	CVD Risk	Dx	Counseling
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												

## Annex -9: Important moments of the training captured in photographs



Dr. Md. Habibur Rahman, Line Director, NCDC, DGHS: speaking in the opening session



Dr. Md. Mahbubur Rahman, Civil surgeon, Cox's Bazar: speaking in the opening session



Dr. Kai Von Harbou, Head of sub office, WHO Cox's Bazar: Speaking in the opening session



Dr. Pintu Kanti Bhattacharjee, Deputy Director (DGFP): Speaking in the opening session



Prof. Malay Kanti Mridha, JPGSPH, BRACU



Dr. Ssentamu Simon Kaddu, WHO Cox's Bazar



Dr. Rina Rani Paul, Consultant, BRAC JPGSPH



Dr. Nushrat Jahan Urmey, Research Associate, BRAC JPGSPH



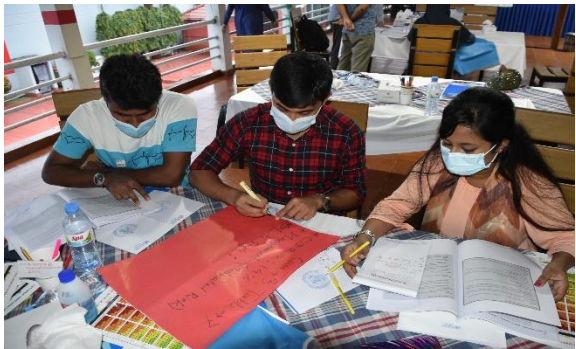
Dr. Raisul Islam, NCD Officer, WHO Cox's Bazar Dr. Ali Ahsan Hemel, Medical Officer, BRAC JPGSPH



All participants are taking part in physical activity



Participants practicing blood pressure measurement



Group work: CVD Risk based management



Group work: PEN implementation plan in PHC



Dr. Shahin, IOM, shared story of PEN implementation in the PHC



Participants participating in simulation (Triage station)



Role play: Brief intervention (5A and 5R Counseling) Presenting CVD Risk based management



Measurement of height during OSPE



Participating at post-test on the 4<sup>th</sup> day of training



Participant sharing her experience during this training



Receiving certificates



Dr. Balwinder Singh, WHO Cox's Bazar  
Speaking in the ending session



We all are committed to beat NCDs