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**4th Health, Population and Nutrition Sector Programmme**

**(4th HPNSP)**

**OPERATIONAL Plan (OP)**

**NON COMMUNICABLE DISEASE CONTROL**

**JANUARY 2017 - JUNE 2022**

**April 2017**

**DIRECTORATE GENERAL OF HEALTH SERVICES**

**(Health Service Division)**

**Ministry of Health and Family Welfare**

**Government of the People’s Republic of Bangladesh**

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**Operational Plan Pro forma/Proposal (OP)**

1. Name of the Operational Plan (OP) : Non Communicable Disease Control (NCDC)
2. Name of the Sector Programme : 4th Health, Population and Nutrition Sector

Programme

1. Sponsoring Ministry : Ministry of Health & Family Welfare
2. Implementing Agency : Directorate General of Health Services
3. Implementation Period :
4. Date of Commencement : January 2017
5. Date of Completion : June 2022
6. **Objectives of the OP** :
* **General Objective:**

To reduce mortality and morbidity of NCDs in Bangladesh through control of risk factors and improving health service delivery.

* **Specific Objectives:**
1. To promote development and implementation of effective, integrated, sustainable, and evidence-based public policies for non communicable diseases, their risk factors, and determinants.
2. To develop and strengthen capacity for surveillance of non communicable diseases, their consequences, their risk factors, and the impact of public health interventions.
3. To foster, support, and promote social and economic conditions that address the determinants of chronic non communicable diseases and empower people to increase control over their health and to adopt healthy behaviors.
4. To strengthen the capacity and competencies of the health system for the integrated early detection, management and control of the risk factors of non communicable diseases.
5. **Estimated Cost** :

**7.1 PIP and OP Cost** :

(Taka in Lac)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total** | **GOB** | **PA** **(RPA)** | **Source of PA** |
| Estimated Total Cost of the PIP | 115,48,636.00 | 96,63,913.00 | 18,84,723.00(11,67,607.00) | Credits from IDA & JICA and Grants from DPs (DFID, GAC, USAID, SIDA, EKN, WHO, UNICEF, GFATM, Gavi-HSS, WB (GFF), UNFPA, etc.) |
| Estimated Non-development Cost of the PIP | 72,00,000.00 | 72,00,000.00 | 0.00(0.00) |
| Estimated Development Cost of the PIP | 43,48,636.00 | 24,63,913.00 | 18,84,723.00(11,67,607.00) |
| Estimated Cost of the OP | 1,11,827.27 | 72,765.20 | 39,062.07(32,462.07) | IDA Pool Fund,\*--------- |
| OP cost as % of PIPDevelopment Cost | 2.572% | 2.953% | 2.069%(2.780%) |  |

**7.2 Estimated Cost of OP (According to Financing Pattern):**

(Taka in Lac)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Source** | **Financing Pattern** | **Y-1****(Jan 17****-****June 17)** | **Y-2****(July 17****-****June 18)** | **Y-3****(July 18****-****June 19)** | **Y-4****(July 19****-****June 20)** | **Y-5****(July 20****-****June 21)** | **Y-6****(July 21****-****June 22)** | **Total** | **Source****of PA** |
| **GOB** | **GOB Taka** | 3280.79 | 14135.65 | 15898.38 | 15271.55 | 13673.01 | 10505.83 | **72765.20** |  |
| **Foreign Exchange** | - | - | - | - | - | - | **-** |  |
| **CD-VAT** | - | - | - | - | - | - | **-** |  |
| **GOB Others****(e.g. JDCF)** | - | - | - | - | - | - | **-** |  |
| **Total GOB:** | **3280.79** | **14135.65** | **15898.38** | **15271.55** | **13673.01** | **10505.83** | **72765.20** |  |
| **PA** | **RPA (through GOB)** | 1463.63 | 6306.21 | 7092.60 | 6812.95 | 6099.81 | 4686.87 | **32462.07** | Pool Fund |
| **RPA (Others)** | - | - | - | - | - | - | **-** |  |
| **DPA** | 297.58 | 1282.14 | 1442.03 | 1385.17 | 1240.18 | 952.91 | **6600.00** | WHO, JICA, Unicef, USAID |
| **Total PA:** | **1761.21** | **7588.35** | **8534.62** | **8198.12** | **7339.99** | **5639.77** | **39062.07** |  |
|  | **Grand Total:** | **5042.00** | **21724.00** | **24433.00** | **23469.67** | **21013.00** | **16145.60** | **111827.27** |  |

1. **OP Management Structure and Operational Plan Components (Attach Management Setup at Annexure-I)**
	1. **Line Director :** Director (on Deputation), DGHS.
	2. **Major Components of OP and Their Programme Managers/DPM:**

| **Major Components** | **Deputy Program Manager****(DPM)** | **Program Manager****(PM)** |
| --- | --- | --- |
| Component A: Major NCDs (Cardiovascular Diseases, Diabetes, COPD, Cancer) | **DPM-1** | PM-I |
| Component E: Occupational HealthComponent H: Environmental Health hazards (Water, Arsenicosis, Air, Soil) | **DPM-2** |
| Component B: Mental Health, Autism, NDDs and Substance abuse & AlcoholComponent G: Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol | **DPM-3** | PM-II |
| Component K: DisabilityComponent M: Physical therapy/PhysiotherapyComponent L: Elderly people/ senior citizensComponent P: Palliative CareComponent J: Ear careComponent F: Oral healthComponent N: Prevention of Thalassaemia | **DPM-4** |
| Component C: Injury including poisoning and snakebite | **DPM-5** | PM-III |
| Component D: Climate ChangeComponent O: Emergency preparedness and Response (EPR), Post Disaster Health Management | **DPM-6** |

**8.3 Proposed Manpower in the Development Budget:**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.****No** | **Name of the Post** | **Number****of Post** | **Pay Scale** | **Grade** | **Consolidated Pay per Person****/Month** | **Total****Month** | **Total Pay****(Taka in Lac)** | **Requirement Method** |
| **A.** | **Officers** |  |  |  |  |  |  |  |
|  | Line Director | 1 | - | 3/4 | - | - | - | Deputation |
|  | Programme Manager | 3 | - | 4/5 | - | - | - | Deputation |
|  | Deputy Programme Manager | 6 | - | 6/7 | - | - | - | Deputation |
|  | Technical Consultant | 4 | 35,500/--67,010/- | 6 | 56,525/= | 66 | 149.23 | To be deputed/Recruited  |
|  | Surveillance Medical Officer | 8 | 22,000/--53,060/- | 9 | 35,600/= | 66 | 187.97 | To be deputed/Recruited |
|  | Accounts Officer | 1 | 22,000/--53,060/- | 9 | 35,600/= | 66 | 23.50 | To be deputed/Recruited |
|  | Field Monitoring Officer | 8 | 16,000/--38,640/- | 10 | 27,100/= | 66 | 195.36 | To be deputed/Recruited |
|  | **Sub Total (A) =** |  |  | **556.05** |  |
| **B.** | **Staffs** (To be out Sourced) |
|  | Programme Assistant | 1 | 12,500/--30,230/- | 11 | 21,700/= | 66 | 14.32 | To be outsourced |
|  | Office Assistant cum Computer Operator  | 5 | 9,300/--22,490/- | 16 | 17,045/= | 66 | 56.25 | To be outsourced |
|  | Store Keeper | 1 | 9,300/--22,490/- | 16 | 17,045/= | 66 | 11.25 | To be outsourced |
|  | Driver | 3 | 9,300/--22,490/- | 16 | 17,045/= | 66 | 33.75 | To be outsourced |
|  | Office Shahayak (MLSS) | 3 | 8,250/--20010/- | 20 | 15,550/= | 66 | 31.67 | To be outsourced |
|  | Cleaner | 2 | 8,250/--20010/- | 20 | 15,550/= | 66 | 21.11 | To be outsourced |
|  | **Sub Total (B) =** |  |  | **168.35** |  |
| **C.** | Festival & Boishakhi Allowance | 66 | **84.14** |  |
| **D.** | Conveyance & Others Allowance  | 66 | **22.77** |  |
|  | **Total (A+B) =** | **831.32** |  |

**\* Details Salary & Allowances are given in Appendix IV**

**NB:** The salary is estimated as consolidated pay as per circular Pay Scale 2015 of MOF.

1. **Description:**

Background information, current situation and its relevance to National Policies, Sectoral Policy, SDG, Vision 2021, Five Year Plan, MTBF etc.

Due to epidemiological transition, there is a need for a policy and legislative shift to meet the challenges of increasing non-communicable diseases (NCDs). WHO defines, NCDs which include primarily cardiovascular diseases (heart disease and stroke), cancers, chronic obstructive pulmonary disease (COPD) and diabetes mellitus. They are linked to four shared risk factors: tobacco use, unhealthy diet, low physical activity and harmful use of alcohol. These risk factors contribute to maturation of the NCDs through a few intermediary risk factors: obesity, high blood pressure, abnormal glucose tolerance, and abnormal blood lipids. WHO published NCD Country Profile 2014: that NCDs account for 59% of total death in Bangladesh (17% cardiovascular diseases, 11% chronic respiratory diseases, 10% cancers, 9% injuries, 3% diabetes and 10% other NCDs).

Population level studies on NCDs are inadequate. Zaman et al reported a population prevalence of ischemic heart diseases 3.4% in adults. Prevalence of stroke was 9.4 per 1000 aged 30 years or older. The national Sample Vital Registration System (SVRS) of the Bangladesh Bureau of Statistics (BBS), estimates that cardio- and cerebrovascular diseases combined are the major causes of death, followed by asthma and respiratory diseases. CVD has an age standardized mortality rate of 411 per 100,000. CVDs and hypertension has been showing an increasing trend. National level prevalence of diabetes hardly available. Approximately 5.5% adults were found to have diabetes in STEPS 2006 survey. IDF Atlas 2014 provides a prevalence of 6.3% in Bangladesh. COPD data are rare. Among 30 years or older, the prevalence of COPD was 29.7 per 1000 (WHO survey).

According to GLOBOCAN 2012 the number of new cancer cases per year is 122,700. Age standardized incidence rate is 104.5 per 100,000 population. Five most frequent cancers in male and female are the cancers ofbreast (12.1%)**,** oesophagus (11.3%), cervix uteri (9.7%)**,** lung (8.8%), andlip and oral cavity (8.7%).

Survey on mental health in Bangladesh revealed that 16.1% of adult and 18.4% of child and adolescent population suffered from any form of mental disorders. Common mental illnesses in adults were anxiety disorders, depression, schizophrenia and substance abuse. In children and adolescent mental retardation was found to be 3.4% and autism was 0.8%.

People from all strata suffer from NCDs, however its impact on poor segment is devastating, they are more exposed to risk factors such as more tobacco and dietary salt compared to the richer segment. Many of the underlying factors for NCDs are beyond the health sector interventions such as poorly planned urbanization, air pollution, availability of affordable unhealthy food, weak tobacco tax and various international treatises such as GATT and TRIPS etc. Therefore, a multisectoral collaboration using “Whole of the Government” approach needs to be ensured.

Some other chronic diseases that have limited or no link to the shared risk factors mentioned above but they do not fall under communicable disease category. Oral diseases (especially oral cancer) and kidney diseases have a few shared risk factors like NCDs. Mental and neurological diseases, autism and other neurodevelopmental disorders, impairment of vision and hearing, chronic arsenic poisoning are common problems. Occupations expose people to unfavourable health outcomes. Poor become poorer because of occupational hardship and cost of treatment. Other forms of physical disability, injuries with special attention to road traffic injuries, drowning, violence related injuries, poisoning and snakebite, burns deserve special attention.

There is strong political commitment of the Government of Bangladesh (GoB) for the control of NCDs. The Government’s response to NCD control: was demonstrated by enacting the tobacco control act 2005 updated in 2013 to comply with the FCTC, adopted the Strategic Plan for Surveillance and Prevention of Non-Communicable Diseases in Bangladesh 2011-2015. Unfortunately, these strategies were mostly for the health sector. Although some progress has been made, public awareness, screening and engagement of primary health care (PHC) are far from optimum. Non-state actors are working with poor coordination with public sector. HPNSDP 2011-2016 planned integrated programmes for prevention of NCDs in alignment with the 6th FYP. However, the implementation of activities for NCD control could not be achieved as expected. It is praiseworthy that GoB has given priority for prevention and control of NCDs in upcoming 4th sector program as proposed in 7th FYP and SIP document.

In the group ‘NCDC’ at least five targets from health related Sustainable Development Goal (Goal 3. Ensure healthy lives and promote well-being for all at all ages) are included: 3.4, 3.5, 3.6, 3.9, 3a.

NCDs are largely preventable by lifestyle modification and importantly treatable.

For operational purpose the program under ‘NCDC’ was divided into Major NCDs and Other NCDs.

**Major NCDs (CVD, cancer, diabetes, kidney diseases, injuries, COPD, etc.)**

In the 3rdSector Program (HPNSDP 2011-2016), control of NCDs was given priority but with inadequate resource allocation. The operational plan was categorized as conventional and nonconventional NCDs. Most of the resources were used in purchasing equipment, training of manpower and arsenicosis and emergency related activities. Major activities conducted were: Steps Survey, piloting PEN interventions in 2013 at Satkhira in Debhata Upazilla HC, establishment of Health Promotion Model villages for NCD control in few areas, model school initiatives in 91 schools. Creation of health literacy by courtyard meetings, facility based education, use of mass media, and establishment of NCD corner are few examples.

The Mid Term Review (MTR 2014) recommended that the health system will need to re-consider its response by realigning efforts to tackle NCDs in a comprehensive manner. The role of the private sector service providers for NCDs has also been emphasized but with a provision of more effective regulatory mechanism. Lifestyle changes deserves due importance. Use of media has been warranted for creation of awareness. Strengthening of MIS has also been recommended urging attention to major cancers. Accidents and suicide amongst specific sections of the population is presenting as a major proportion of mortality and morbidity. Little emphasis has been placed on these in the past and deserves a revisit. Little engagement of the MOHFW has been observed in environmental health or climate change issues although there is growing concern about environmental pollution (air, water, and land). The MTR has given due importance to urban health also especially related to pollution and sanitation.

**Other NCDs ( dental health, birth defects, etc.)**

Disabling hearing loss is prevalent in 9.6 per cent of Bangladeshi people. Hearing loss is more prevalent in socio-economically deprived and in those older than 60 years. Impacted ear wax and chronic suppurative otitis media are the most common preventable causes of hearing loss.

**Challenges:**

* **Challenges to address: No organized body/authority for NCD control to lead and coordinate stakeholders such as non-health sectors and non-state actors:** A central body or authority is essential to lead and coordinate the NCD control in Bangladesh. An existing national centre, NCCRFHD, can be designated as the National NCD Prevention Centre. At the beginning, little additional human resource or fund will be needed to make this shift. It can serve the purpose of the NCD Directorate and can be the hub to formulate policies and legislations required for NCD prevention involving non-health and health sector.
* **Weak surveillance system for NCDs and their risk factors having poor link to HMIS:** Routine hospital based surveillance is incomplete and inaccurate. Inclusion of major NCDs is relatively new. The capacity of the Systems is still weak. Sentinel surveillance sites are yet to be established. Periodic STEPS survey is done but it should be taken up by the routine surveys done by BBS and NIPORT. HMIS needs to assimilate data from all sources.
* **Tier specific health system essential package for NCD is lacking:** Community based screening programme is not yet introduced for NCD control: Defined packages are needed to define the roles and responsibilities of the tiers from tertiary to primary care down to community clinics. Essential packages should have been developed, hypertension and diabetes should be brought under a screening system.

**Inadequate supply of affordable essential drugs, diagnostic and other logistics:** Detection of NCDs will be sustainable only when supply of drugs and logistics are made available at all levels. A big hindrance to engage PHC in early detection and effective management is absence of essential affordable drugs. The essential drug list for NCDs require updating, the supply has to be ensured.

***Major NCDs (Cardiovascular Diseases, Diabetes, COPD, Cancer):***

Control of NCD risk factors through lifestyle intervention: A recent global report highlights the modifiable risk factors (90%) and air pollution (29%) as risk factors for stroke.

STEPS surveys were done in 2006, 2010 and 2013; GATS was done in 2009. Almost nine in ten adults have at least one risk factor. Three-quarters of the population have two or more risk factors with a high proportion of clustering. Low intake of fruit and vegetables is the commonest- more than 93% population consumes less then minimum recommended of 5 servings of fruits and/or vegetables per day. Lack of physical activity is 38%. Tobacco use is still very high in Bangladesh- 38% male smokes, 27% men and women consume smokeless tobacco. Salt intake is very high, 11gms per day with 5 gm daily recommendation of WHO. Results of three STEPS surveys indicate that use of tobacco has been declining but all other risk factors are increasing in Bangladeshi adults. These risk factors are amenable to lifestyle and other interventions. Interventions will work better only if legislative or policy support is provided.

In this component the area to be addressed are: capacity of primary health care (PHC) will be strengthened for screening/early detection, management and referral; for health communication and counseling; for control of shared risk factors like tobacco use, unhealthy diet, lack of physical activity and harmful use of alcohol (also linked to STG component- 8 To promote healthy life choices and environment); control of intermediate metabolic risk factors (Overweight/obesity, high blood pressure, raised blood sugar and raised blood lipids. Also, improvement of air quality will be promoted (also linked to STG-8.

***Mental Health, Autism, NDDs, Substance abuse & Alcohol***

Mental health strategy is yet to be developed. Widespread social stigma, limited human resource capacity and lack of formal initiative to address mental health problems are hindrance. Identification of the signs of the most common priority mental health conditions (autism and neurodevelopmental disorders, epilepsy, and common mental health disorders including depression, psychosis, anxiety and substance abuse) and their referral to UHC and DH is essential for management. Community and union-level facilities will also participate in the support to the rehabilitation of mental health patients, including the fight against stigma. The DH is the main facility for organizing these services, and will host the Community Mental Health Team, in charge of providing specialized support to UHC and others in the territory.

***Injury including poisoning and snakebite***

WHO estimates, approximately 70,000 yearly deaths in Bangladesh due to injury (burn, drowning, acid and accidents at work), estimated 18,000 yearly death due to road traffic injury. Injury is also the leading cause of disability. Poisoning is a leading cause of morbidity and mortality across the country with an approximate annual admission of 64,000 cases, (2% of all admission) injury and poisoning responsible for 9% of all hospitalized death. Snakebite is a rural health problem among the poor farming community causing more than 700,000 episodes and more than 6000 deaths in a year.

Prevention and emergency management of various injuries will be addressed in this component. These include: road traffic injury, drowning, prevention and treatment of poisoning, burns, prevention and treatment of snakebite, occupational injury, intentional injuries, and violence against women (GBV).

***Occupational health***

Major occupations in Bangladesh are farming (two thirds of the population are farmers- rice, tea, mango, potato, and onion crops), fishing community, garments workers, migrant workers, cleaners, livestock and poultry workers, forest workers, health care professionals. Workers in ship breaking industry are at increased risk of injury and death. These occupations have their own unique health related problems. Industrial workers have different health problems as well. Occupational safety board of Bangladesh (BUET) identified safety issues in different industries. In order to address the health of the major occupations in relation to equity, poverty, and marginalized population the health hazards of major occupations need to be addressed. Few observations suggest important health hazards of common occupations are- injury, pesticide related harms (self-poisoning and environmental hazards), animal injury (dog bite and snakebite), NCD at early age, drowning at sea and river, back pain and sciatica, various infections (hepatitis, B, C; anthrax, typhoid, leptospirosis, malaria, melliodosis, typhus, TB, HIV infection). National health policy provided guidance for improvement of health of the farming, industry, livestock and poultry workers

***Climate Change***

Effects of climate change on health: “Climate change is harming human health, and the magnitude of the harm is increasing”. Bangladesh is a hot humid country in the tropics. In the cities, there is industrial and vehicle transmission resulting in poor air quality due to smog and expected to increase morbidity and mortality from COPD and other respiratory illness. Storms and flooding are frequent occurrence. There will be acute effects of storms and flooding- injury and death; indirect effects of compromised sanitation lead to increased incidence of diarrhoeal diseases. Warmer humid conditions will accelerate vector breeding contributing to increased vector borne diseases.

***Oral health***

Poor oral health is related to diseases like oral cancer, NCDs (linked with periodontal infections), infections. Diabetic patients are prone to develop oral infections. Basic education on proper oral health may prevent or delay such conditions.

***Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.***

**Substance abuse, including narcotic drug abuse:**

Abuse of narcotic drugs and substance abuse is an emerging social problem particularly among the youth. Detail about the situation is yet to be determined.

**Alcohol and related problems:**

According to WHO alcohol consumption is one of the four modifiable risk factors for non-communicable diseases. Estimated prevalence of alcohol consumers in general population of Bangladesh is low (1.9%) but binge drinking is on the rise. In some rural areas, as high as 93.9% consumers reported positive drinking habit among their senior family members (for example, in tribal population) Cases of alcohol intoxication were reported from all over the country. In Bangladesh, the majority of methanol poisonings occur after consumption of methanol-contaminated alcoholic drinks. Higher prevalence of alcohol use among the university students, truck drivers, sex workers, substance abusers, homeless children, indigenous people, and in families with positive history for alcohol drinking implies the need to formulate cost effective prevention programs for specific society groups and clusters.

***Environmental Health hazards (Water, Arsenosis, Air, Soil)***

**Arsenicosis:**

Groundwater contamination with arsenic resulted in chronic arsenicosis in population in a large area in Bangladesh. Health problems are- skin manifestations, palmoplanter keratosis, peripheral nerve disease, vascular involvement and skin and internal malignancies. Collaboration between DGHS and DHPE was ongoing to address the problem under a National Policy for Arsenic mitigation (2004), with key interventions for providing safe water and providing care to the identified patients.

**Lead Contamination:**

Lead is known to cause neurocognitive impairment.Prevention of lead contamination of food (turmeric, rice), soil is essential.

**Air pollution:**

Air quality in major cities and in rural areas in Bangladesh is poor. Poor air quality is contributor to the development of NCD (COPD for example) and childhood acute reparatory infection. Considering the importance of air pollution in the economy and health DoE, Bangladesh has developed ‘Air Pollution Reduction Strategy for Bangladesh (2012)’.

**Soil contamination:**

Soil is an important source of bacteria, bukhdorhelia causing melliodoiosis, a serious bacterial disease affecting rural farmers having diabetes.

***Ear care***

**Hearing impairment:** Disabling hearing loss is prevalent in 9.6 per cent of Bangladeshi people. Hearing loss is more prevalent in socio-economically deprived and in those older than 60 years. Impacted ear wax and chronic supportive otitis media are the most common preventable causes of hearing loss.

***Prevention of Thalassaemia: Cross cutting issue with HSM***

B- Thalassaemia (Hb E disease) is the most common genetic disorder in Bangladesh with a gene prevalence rate of around 6%. This translates that 6 out of every 100 Bangladesh carry this mutant gene. With a population of about 160 million, around 10 million people are healthy carriers of this gene. Thalassaemia is an autosomal recessive disease, which means that if two carriers get married to each other then they will have a 1 in 4 (25%) chance of having an offspring with B-Thalassaemia Major in every pregnancy. Over 5000 affected children are born. These children require regular monthly blood transfusions and halation therapy to remove the excess iron from their bodies in order to just stay alive. A large amount of money is required for each child per annum. Currently, majority of the patients in Bangladesh do not get adequate treatment, especially the transfusion of safe blood has been a big problem and the majority of the Thalassaemics are positive for infections such as Hepatitis B, C and HIV.

Since there is no easily available cure for this disorder, the only hope lies in adopting a preventive program on the line pursued by countries like Italy, Cyprus and Iran, which has resulted in either complete control or significant reduction in the births of new Thalassaemia Major Children in these countries. Considering the gravity of the issue, the Government of Bangladesh should take the lead and initiative Bangladesh Thalassaemia Prevention Programme (BTPP), which will be unique and can be compared with any other preventive program of the world.

***Emergency preparedness and Response (EPR), Post Disaster Health Management***

The geographical location and the topographical features of the country make Bangladesh vulnerable to natural disasters. The EP&R Program of the DGHS is responsible for the health response to natural and man-made disasters/emergencies, in close co-operation and partnership with other agencies.

The main strategies aim to increase the level of readiness at all tiers of the health system and improve the capacity of the sector for coordinated post-disaster management. Standard national guidelines for mass casualty management as well as manual for local level health response will be developed and necessary training will be conducted. Standardization of emergency health supplies and their stockpiling will be part of the readiness program for flood, cyclone, tornado and earthquake. A TA supported strategic study will be commissioned. Trainings will be arranged for health and family planning staff in collaboration with Civil Defense Department and Red Crescent Society on risk/ vulnerability assessment, vulnerability reduction, disaster mitigation, review of emergency preparedness and humanitarian assistance. Guidelines, protocols and standard operating procedures (SOP) will be developed.

***Palliative Care***

The WHO in 2002 stated that ‘Palliative care is an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual. The WHO recommends palliative care should be provided from the time a disease is diagnosed and continued even after the death of the patient, in the form ofbereavement care for family members

In 2014, the World Health Assembly (WHA) passed a resolution calling on all member states to “integrate palliative care services in the continuum of care, across all levels, with emphasis on primary care, community and home-based care, and universal coverage schemes.” Palliative care is also recognized as an essential health service within the World Health Organization (WHO) definition of Universal Health Coverage (UHC).

**Cross-Cutting Issues including Poverty, Environment, Climate Change, Women & Children and Gender etc.**

Creating a health literate society is a core necessity for NCD control in the long run. Infection related NCDs such as of cancer of cervix uterus, liver, stomach. Diabetes predisposes to or aggravates certain communicable diseases such as tuberculosis, HIV/AIDS, etc. A large pool of mothers suffers from hypertension and diabetes at their pre-natal and post-natal stage. The pathogenesis of heart disease and stroke starts at early childhood. Therefore, a life course approach to NCD prevention with a continuum of care is warranted. WHO published NCD Country Profile 2014: that NCDs account for 59% of total death in Bangladesh (17% cardiovascular diseases, 11% chronic respiratory diseases, 10% cancers, 9% injuries, 3% diabetes and 10% other NCDs). NCDs are largely preventable by lifestyle modification and importantly treatable.The communicable diseases like Malaria, Kalazar, Dirrahoea, Typhoid etc; are the leading causes of mortality and morbidity. Women, children and poor are most vulnerable of these diseases. Under this OP, various activities will be implemented for prevention and control of these diseases through increasing accessibility, efficiency and quality of services. It will help to improve overall health status of people specially the women, children and poor, which will in turn contribute to increase productivity, reduce poverty and gender disparity and would create employment opportunities. To implement the propose activities of this OP, inter-OPs, inter- agencies and multi-sectoral collaboration/ coordination will be strengthen. Besides emphasize will be given for, engagement of local government institutions and community to support implementation and monitoring of the program.

**Essential Service Package (ESP) of NCDC**

Despite the recognition of the growing importance of NCD as cause of morbidity and early mortality, the development of national guidelines and protocols is at an early stage in Bangladesh. For the ESP, interventions are limited to those conditions where PHC plays a substantial role: hypertension (HTN), diabetes mellitus (DM), arsenicosis, and chronic obstructi cancers of the reproductive systems are included, and even those with the limitations mentioned earlier in the document. At present, diagnosis and management of HTN, DM and COPD are supposed to be carried out by MO, limiting it to union-level facilities and above. Community counseling on healthy lifestyle and smoke cessation, suspected cases for proper assessment by a MO/SACMO. PHC involvement in the management of arsenicosis focuses on counseling on the consumption of safe water, and limited treatment of skin conditions. Case management with antioxidants is reportedly restricted to tertiary-level facilities. The MOHFW is piloting the Package of Es primary health care in low-resource settings (PEN), which is based on total risk assessment for cardio vascular diseases (CVD) based on simplified tables and algorithms. The PEN approach has been used in other settings and is increasingly being adopted as the main NCD strategy. It would allow further involvement of the community level and non-physicians in screening for risk factors for CVD, as well as their participation in managing uncomplicated NCDs according to established protocols under MO supervision. The inclusion Mental Health in the ESP seeks the involvement of all levels of care in the identification of the signs of the most common, priority conditions (autism and neurodevelopmental disorders, epilepsy, and common mental health disorders including depression, psychosis, anxiety and substance abuse) and their referral to UHC and DH, where most care will take place. Community and union-level facilities will also participate in the support to the rehabilitation of mental health patients, including the fight against stigma. The DH is the main facility for organizing these services, and will host the Community Mental Health Team, in charge of providing specialized support to UHC and others in the territory. Management of cases of Sexual and Gender-based Violence (SGBV) are currently limited to DH (as well as UHC) and above, but they should be integrated at lower levels, including some selected union level facilities. Although it is not an NCD in the sens been located here following the SIP classification.

**10. Programme-wise Priority Activities of the OP:**

***Component A: Major NCDs (Cardiovascular Diseases, Diabetes, COPD, Cancer):***

**Activities A:**

**Action Area 1: Screening**

Primary Health Care (PHC) system (community, community clinic, union health facility and Upazila Health Complex) will be used for prevention of NCDs through public awareness, screening and early detection, treatment and referral. Activities for screening of the risk factors of NCDs, and NCDs will be conducted at population level- for detection of NCDs - hypertension, diabetes mellitus, high cholesterol, COPD. Health Workers (Health assistant (HA), FWAs, Community Health Care Provider (CHCP), AHI and HI will be trained. The cases of NCDs identified in the community and community clinic will be referred to Upazila Health Complex for further advice. At individual level- NCD care will established at Upazila Health Complex for diagnosis, management and advice for hypertension, diabetes mellitus, high cholesterol, COPD, breast and cervix cancer. Bangladesh has a four tier of health infrastructure and the primary health care provides intra personnel communication through house to house visit. Poor health seeking behavior of the beneficiaries is a challenge for taking service delivery. Some mechanism needs to adopted for improving health seeking behavior of the people. Multi-purpose volunteer/worker is a new initiative who will motivate the people to attend the health facilities especially community clinic and UHC for identification, diagnosis and management whatever appropriate.

For early diagnosis and management of NCDs (Conventional) and their risk factors the major activities will include the following:

1. Development/update the Guidelines and SOPs for diagnosis and management of NCDs.
2. Provision of training of doctors and non-doctors (pilot to understand best practices were completed at Debhata, Shatkhira District). Train 50000-60000 HA, FWA, CHCP on healthy lifestyle education using Healthy Lifestyle Module.
3. Provision of Quality care of NCDs at the level of primary health care (community clinic, Union Health and Family Welfare Center (UH & FWC)/Union Sub Centre (USC), Upazila Health Complex (UHC); Secondary level (District Hospital); Tertiary level (Medical College Hospital & Specialized Institutes). A strong referral linkage with feedback will be established from CC to UHC and further referral to DH/MCH/Specialized institutes.
4. Infrastructure- An ‘NCD corner’ based on Package of Essential Non-communicable (PEN) Disease Interventions for Primary Health Care in Low-Resource Settings was piloted at UZHC and below in the 3rd sector program, lesson learnt from it will be used to scale out the activities at different health care facilities. The intervention package developed under three strategic headings of (a) Capacity building- NCD care strengthening, referral system, training/orientation, within health sector collaboration: communicable and Non-communicable diseases. (b) Health information system- ICT equipment, baseline survey, reporting, stock taking, record books, (c) Public awareness- Settings -School health -Union council, observance of days, community radio programme, IEC materials, volunteer networks will be implemented for NCD control. There will be a strong collaboration with CBHC, HSM MIS, LHEP.
5. Essential medicines for treatment and prevention of diabetes, hypertension and heart diseases and essential technologies will be provided- at UZHC: X-ray, ECG, Nebulizer, Glucometer, BP machine, Measurement tape, weighing scale; at HFWC, UHC, CC: BP machine, glucometer, urine sugar strip.
6. Arrangement will be made to ensure supply of the diagnostics and drugs available as per CBHC package (antihypertensive, insulin and other diabetes medicine, affordable asthma inhalers, nebulization equipment and solutions).
7. Free/subsidized treatment for NCDS at least for the poor (identified) will be provided.
8. (a) Initial expansion of PEN in seven districts and gradual expansion to all over the country (20% community clinic).

(b) Piloting of NCD management (Diabetes & Hypertension) in two (02) upazilas namely Debidwar of Comilla District & Sreenagar of Munshiganj District.

1. Special NCD program targeting marginalized population, migrant workers will be arranged.
2. Review the essential drug list to include NCD drugs as per Essential Health Service Package (ESP) will be made.
3. Arrangement to revisit the medical curriculum for NCD prevention and care in collaboration with the Line Director Pre-service education.
4. Refine Essential Package of Essential NCD services.
5. Make an addendum on healthy lifestyle promotion for MCH and FP Health workers.
6. Development of service protocol for diagnosis and treatment of NCDs, and screening of cancer of breast, cervix and oral cavity.
7. Advocate medical colleges/institutions to focus on integration of NCD in primary health care.
8. Collaboration with other directors (example- CHCB, CBHC, HSM) will be made.
9. Health education and skills development of the NCD patients will be arranged by a ‘NCD Resource Centre’/cell for providing training about risk factors, life style, inhalers technique, insulin injection etc.
10. Referral- There is no structured referral system in Bangladesh, from ‘where’ the patients will go to ‘where’ and the system is yet to develop a formal inter - facility referral system. The patients are at liberty to seek care to any health care professional and in any facility of his/her choice. Most of the time ‘social referral’ happens. Development of a referral system and back referral with advice for the care of NCDs will be made (cross cutting with CBHC and HSM) this is more applicable for the subjects referred from the community clinic or union facilities when diagnosis will be confirmed and treatment will be initiated at UHC and refill of drugs will be made from the CC (policy issue). Intra-institutional referral mechanism will be established as well.
11. Activity for surveillance of NCDs: Development and maintenance of effective surveillance (population and facility based) in alignment with Management information system of DGHS for monitoring and evaluation of NCDs and risk factors and morbidity/mortality statistics by cause. Data will be collected from different sources- community and service delivery sites on morbidity, mortality and risk factors.
12. Multi-sectoral coordination

**Action Area 2: Advocacy, partnerships, and leadership**

Actions:

* Raise public and political awareness/understanding about NCDs and their risk factors through social marketing, mass media and responsible media reporting;
* Set up an effective national multisectoral coordination mechanisms for NCDs at various levels of governance and eventually reporting the progress to the Head of the State;

Multisectoral NCD Coordination Committee (MNCC)at the national level, Divisional/District/Upazilla Level Committees.The NCD Control Programme of the DGHS will be the Secretariat of the multisectoral NCD Coordination Committee (MNCC).

* Catalyze a systematic society-wide national response in NCD control by addressing the underlying social, environment and economic determinants of health by engaging broad range of actors; and
* Advocate for innovative financing mechanisms in NCDs prevention particularly ear marking funds from tobacco tax revenues;
* Strengthen the NCDC Program as a national unit on NCDs in the MoHFW to be a fulltime Secretariat and carry out needs assessment, strategic planning, policy development, multi sector coordination, and programme implementation and evaluation.

**Major Activities:**

(i) Conduct yearly high level advocacy meetings including but not limited to the Ministry of Health and Family Welfare, Ministry of Food, Ministry of Education, Ministry of Local Government, City Corporations, Youth and Sports, Urban Planning, Police, academia and other institutions. (ii) Conduct meetings with other UN agencies and development partners for funding support to draw linkages to the multisectoral NCD Action Plan. (iii) Conduct orientation of media agencies on responsible media reporting on NCDs. (iv) Sign MoU between MoHFW and Ministry of Education and MoHFW and Ministry of Local Government to initiate Healthy Settings programs in cities and schools. (v) Reconstitute multisectoral NCD Coordination Committee and conduct six monthly NCD Meetings.

**Action area 3:**

* **Health promotion and risk reduction (Healthy Lifestyle and practices):**

Actions:

Healthy lifestyle and practices will be promoted at community level and at facility levels.

**Major Activities:**

(i) At community level- massive and rapid public health campaign will be made on diet, reduce salt intake, harmful effects of tobacco use, reduce exposure to indoor air pollution, exercise promotion; Awareness will be created using purposefully developed flip chart on NCD risk factors and NCDs (prepared for HA and CHCP, and other health and FP workers), school health programmes, opinion leader’s orientation, observance of NCD related days, community radio programmes and other relevant methods of BCC. A network of NGOs, local clubs and other organizations will be promoted. (LHEP, DGHS). (ii)At all health facilities- regular communication program will be arranged (by Upazilla Health education unit proposed in National Health Policy)- related to diet, tobacco cessation, exercise promotion, reduce salt intake, reduce exposure to indoor air pollution, (iii) Quarterly workshop/meeting on risk reduction of NCDs participated by all stake holders & actors organized by Civil Surgeon.

* **Reduce tobacco use:**

**Actions:**

Accelerate full implementation of the Tobacco Control Act 2013 of Bangladesh;

Raise taxes on tobacco products including smokeless tobacco through effective policy dialogue with the policy makers and legislators;

Advocate for 100% tobacco-free environment in all indoor workplaces, public transport, and indoor public places and strengthen enforcement programs through mobile court checks;

Implement pictorial health warning on tobacco use including smokeless tobacco through strategic mass media and behavioral change campaigns;

Enforce measures to eliminate the illicit tobacco trade, including smuggling, illicit manufacturing and counterfeiting (in line with WHO FCTC Article 6);

Develop trading substitutes and relocation policies for tobacco farmers; and

Set up a national quit line for tobacco users.

**Major Activities:**

Multisectoral co-ordination (non-health interventions, stewardship and regulatory).

(i) Conduct mobile court enforcement visits in smoke free public places in cities of Dhaka, Chittagong, Khulna, Sylhet, and Barisal and other prioritized 20 districts. (ii) Orient enforcement teams on control of illicit tobacco trade. (iii) Propose for tax revisions for all types of tobacco and ear marking 1% tax revenue for tobacco control program. (iv) Initiate trade relocation program for tobacco farmers.

* **Healthy diet: High fruits and vegetables and low intake of saturated fats/trans fats, free sugars and salt**

**Actions:**

(i) Disseminate Bangladesh National Dietary Recommendation in mass media and through channels; (ii) Conduct public campaigns through mass media and social media to inform consumers about a healthy diet high in fruits and vegetables and low saturated fat, sugar and salt; (iii) Implement national salt reduction campaigns in mass media, schools and institutions; (iv) Support consumer protection groups in Bangladesh to advocate and discourage marketing of foods and non-alcoholic beverages to children; (v) Increase collaboration between salt/sodium reduction programmes and salt iodization programmes for increased public health gains and higher programme efficiency; (vi) Promote nutritional labeling, according to but not limited to international standards, in particular the Codex Alimentarius, for all pre-packaged foods including those for which nutrition or health claims are made; (vii) High tax impose in energy drinks/beverage; (viii) Conduct counter advertisement; and ban advertising, promotion and sponsorship of unhealthy diet.

**Major Activities:**

Multisectoral co-ordination (non-health interventions, stewardship and regulatory).

(i) Network with Codex committees on inclusion of trans fat, saturated fat, salt and sugar, (ii) Educate mobile courts on food labeling and contents on salt, trans fat, saturated fat, and sugar, (iii) Regulate private industries to voluntarily reduce salt, trans fat, saturated fat, etc in packaged food products. (iv) Conduct review of fast food, sugary drinks, beverages, soft drinks marketing and promotion and make strategic recommendations to take counter measures, (v) Mass media promotion of consumption of fruits and vegetables, (vi) Salt reduction mass media campaigns.

* **Promote Physical Activity:**

**Actions:**

(i) Adopt and advocate the national guideline on physical activity for health; (ii) Develop multisectoral policy measures to promote physical activity through active transport, recreation, leisure and sports; (iii) Advocate town and urban planners and increase number of public spaces supporting physical activity, urban housing complexes that include safe walking and cycling spaces; (iv) Advocate for construction of built and natural environments supporting physical activity in schools, universities, work places, and health facilities. (v) Carry out mass media campaigns and social marketing to raise awareness on the benefits of physical activity throughout the life cycle, (vi) Make the existing footpaths free from vendors. (vii) Make provision of separate bicycle ways, free space like parks, lakes, ponds inspiring people to walk more to avoid motor vehicle

**Major Activities:**

Multisectoral co-ordination (non-health interventions and stewardship).

(i) Develop national physical activity recommendation. (ii) Disseminate 1000 PSA per year on TV, radio and social media on physical activity recommendations. (iii) Establish addendum on information on physical activity and healthy lifestyle promotion in school curricula. (iv) Develop a healthy lifestyle advocacy toolkit for community health educators.

* **Promote healthy behaviors in key settings**

**Actions:**

(i) Enable healthy settings programs in schools and work places for health promotion activities; (ii) Establish Health Promoting Schools with guidelines for implementation and mechanisms for monitoring and evaluation; (iii) Establish Healthy City Projects with guidelines for implementation and mechanisms for monitoring and evaluation; (iv) Conduct advocacy and training workshops among teachers to promote healthy behaviors in schools and work places; (v) Lobby for discouraging processed food high in saturated fat, sugar and salt from schools premises and work place catering facilities.

**Major Activities:**

Multisectoral co-ordination (non-health interventions, stewardship and regulatory).

(i) Conduct needs assessments for urban healthy lifestyle promotion; (ii) Define Healthy City Program Intervention Packages; (iii) Institute an Inter-sectoral Committee to Promote Healthy City; (iv) Implement Healthy City Program in Two Dhaka City Corporations, Chittagong and one another major city; (v) Conduct an annual inter-city meeting on Healthy Cities; (vi) National workshop of mayors, urban planners, and urban chief health officers; (vii) Review and Develop Health Promoting Package interventions; (viii) Implement Health Promoting Schools Programs in 100 schools.

* **Reduce household air pollution**

**Actions:**

(i) Strengthen advocacy in support of transitional to cleaner technologies and fuels (LPG, bio-gas, solar cookers, electricity, and other low fume fuels); (ii) Promote private producers to manufacture improved stoves through providing bank loans and stove designs; (iii) Create mass awareness through popular print and electronic media about the health impact of indoor air pollution; (iv) Develop programmes aimed at encouraging the use of improved stoves, good cooking practices, reducing exposure to fumes, and improving ventilation in households; (v) Create awareness and develop appropriate strategies to reduced exposure to second-hand tobacco smoke in households.

**Major Activities:**

Multisectoral co-ordination (non-health interventions and stewardship).

(i)Promote use of clear technologies and reduction of biomass fuels for cooking and heating through projects supporting improved cook stoves, and good cooking practices. (ii) Create awareness and develop appropriate strategies to reduce exposure to second-hand tobacco smoke in households. (iii) Promote private producers to manufacture improved stoves through providing bank loans and stove designs. (iv) Create mass awareness through popular print and electronic media about the health impact of indoor air pollution. (xxi) Activities to improve the quality of health services related to prevention and treatment of NCDs in some targeted districts through strengthened district health administration, service delivery capacities and referral system including key activities above and practicing 5S-CQ1-TQM at facilities through JICA TCA project.

***Component B: Mental Health, Autism, NDDs and Substance abuse& Alcohol***

**Activities:**

1. Training of primary health care providers (CBHCP, HA), nurses, SACMO, Medical Officers on screening, identification and counseling of priority mental health conditions also includes providing ‘psychosocial first aid’. (NCDC will arrange it through NIMH, MCH psychiatry department).
2. Screening & counseling: identification and support to mental health cases, including fighting stigma and others at different levels of primary health care at rural and urban areas, UHC and District Hospital. (modalities to be developed)
3. Identification of signs of mental health conditions and referral from community clinic and UH&FWC/UHC and urban PHC to UHC and District Hospital.
4. Diagnosis and management of priority mental health conditions: (Autism &Neuro Developmental disorders, epilepsy, common mental disorders: psychosis (schizophrenia), depression, bipolar mood disorder, anxiety, substance abuse) at UHC and District Hospital.
5. Inpatient care for acute, severe cases at District Hospital and Medical College Hospital/NIMH/Pabna Mental Hospital (strengthening PMH).
6. Formation of Mental Health Team (MHT) (Consisting of trained physician/psychiatrist, psychologist, trained nurse, counsellor): one for each District Hospital and (one mobile team to visit UHC periodically to be agreed).
7. To establish and strengthening of ‘Shishu Bikash Kendra’ (SBK) and services for autism and neuro developmental disorders at all medical college hospitals and DH (Cross cutting- HSM) (post creation as well DGHS). Provision of services at UHC and a referral linkage with SBK DH will be established with a mechanism of prior appointment. Provision of life time support for the disabled at different stages of life will be a stewardship role of MOHFW- with health and non- health sectors.
8. Public awareness program on priority mental health conditions: preparation, distribution and use of IEC materials (print and electronic version, flip chart, bill board, leaflet).
9. Support to rehabilitation of mental health patients.
10. Development of Mental Health Strategy and implementation of the policy on Integration of Mental Health into Primary Health Care.
11. Supplying psychotropic drugs (haloperidol, risperidone, amitriptyline, fluoxetine, procyclidine) and antiepileptic drug (carbamazepine, barbiturate) in the primary health care and district hospital.
12. Providing mental health care and psychosocial support for disaster-affected population.
13. Prevention of substance abuse and suicide in the community, to develop helpline for suicide prevention (cross cutting issue).
14. Conducting national mental health survey.

***Component C: Injury including poisoning and snakebite***

**Activities on Road Traffic Injury:**

1. Education and publicity-Improved knowledge and behaviour of road users, and raise awareness about traffic rules and safety. Multisectoral co-ordination (non-health interventions and stewardship)
2. Education of pedestrian regarding use of road, foot path and over bridge and signals through school, community safety program and media. Multisectoral co-ordination (non-health interventions, and stewardship).
3. Driver recruitment, training and testing – Ensuring minimum standards for drivers such as ensuring eligibility according to age, physical fitness and provide adequate training on safe driving practices. Multisectoral co-ordination (non-health interventions, stewardship and regulatory).
4. Training on pre-hospital care by the first responder and comprehensive training on trauma case management to the health care providers. Cross cutting issue: Linked to Community Based Health Care (CBHC), Secondary and Tertiary-level Hospital Management System (HSM).
5. Engineering and environmental approach multisectoral co-ordination (non-health interventions, stewardship and regulatory).
6. Legislation and standards multisectoral co-ordination (non-health interventions, stewardship and regulatory).
7. Vehicle design and safety equipment multisectoral co-ordination (non-health interventions, stewardship and regulatory).
8. Emergency medical care Cross cutting issue**:** Linked to Community Based Health Care (CBHC), Secondary and Tertiary-level Hospital Management System (HSM). (i) Ensure emergency assistance for rescue and transportation of the crash victims within golden hour. (ii) Establish emergency medical service system – Pre-hospital care and hospital care. (iii) Ensure treatment of the road crash victims in public and private hospitals.
9. Collaboration and coordination multisectoral co-ordination (non-health interventions and stewardship). (i) Effective co-ordination and collaboration of road safety council which is responsible for planning, implementation and monitoring of road safety activities, formulating road safety policy, facilitating funding, dissemination of information, organizing road safety education and publicity and training. (ii) Collaboration between relevant sectors/departments. /agencies for injury information and reporting and also in providing emergency medical services. (iii)Effective collaboration with vehicle owner’s association and worker’s association.

**Activities for prevention of drowning:**

1. **Education and skill development:**
2. Awareness building and education in School/Madrasha, families and communities and river transport drivers on primary prevention, rescue and resuscitation. Multisectoral co-ordination (health and non-health interventions, and stewardship).
3. Supervision of children at home and community through developing a community based supervision system. Multisectoral co-ordination (health and non-health interventions, and stewardship).
4. Swimming learning including creating facilities for swimming. Multisectoral co-ordination (health and non-health interventions, and stewardship).
5. Strengthening hospital facilities by providing training of health care providers. Cross cutting issue: Linked to Community Based Health Care (CBHC), Secondary and Tertiary-level Hospital Management System (HSM).
6. Strengthening mass awareness through different media. Cross cutting issue: Linked to BCC.
7. **Legislation and standards multisectoral co-ordination** (non-health interventions, stewardship and regulatory).
8. **Environmental and engineering multisectoral co-ordination** (non-health interventions and stewardship).

**Activities for prevention of burns:**

1. **Education and skill development** multisectoral co-ordination (health and non-health interventions and stewardship).
	1. Home safety specially during cooking and work place safety for fire thorough awareness creation.
	2. Social movement and steps to stop acid burn.
	3. Educate and train parents, care givers, students and community on primary prevention and first aid for burns.
2. **Environmental and engineering** multisectoral co-ordination (non-health interventions and stewardship).
3. **Legislation and standards** multisectoral co-ordination (non-health interventions, stewardship and regulatory).
4. **Emergency Medical Care** Cross cutting issue: Linked to Community Based Health Care (CBHC), Secondary and Tertiary-level Hospital Management System (HSM).
	1. Establishment of “One Stop Crisis Centre” (HSM).
	2. Strengthen health system for burn case management including human resources (CBHC, HSM).
	3. Establishment of burn unit in each Medical College and facilities for burn patients at District Hospital and a provision for scale up (HSM).

**Activities for prevention and treatment of poisoning:**

**Education and skill development** multisectoral co-ordination (health and non-health interventions and stewardship)

1. Prevention of poisoning related to agrochemicals (e.g., pesticides: herbicides, insecticides, rodenticides):
	1. Legal issues of import, distribution, use;
	2. Community engagement including training farmers and sparymen on the appropriate use of such products (multisectoral coordination with agrochemical sector). Educate family members and school students on risk of poisonous substances. Careful storage and proper labeling of poisonous substances at home.
2. Preventing suicides by appropriate counseling of victims of self-harm (most cases of intentional self-harm involve pesticides or drugs) (cross-cutting issue with Mental Health).
3. Preventing poisoning of commuters (i.e., drug-facilitated crimes mostly involving sedatives) (cross-cutting issue with multisectoral cooperation: law enforcement agencies and health sector).
4. Environmental modificationmultisectoral co-ordination (health and non-health interventions and stewardship). (1) Keep out of reach of children and vulnerable groups through building protective shelves.
5. Legislation and standardsmultisectoral co-ordination (non-health interventions, stewardship and regulatory). (i)Safe packaging of insecticide, pesticide and poisonous substances. (ii)Decrease access to poisonous substances through restriction on selling and storage of deadly chemicals.
6. Treatment and emergency Medical Care:
7. Creation of community awareness for prevention, first aid and quick referral of cases of poisoning to UHC.
8. Setting up (I) four interlinked poison information centres (PIC), one each at Dhaka, Chittagong, Rajshahi, Sylhet medical college hospitals, to improve case management, surveillance and prevention; (II) one central analytical toxicology laboratory at PIC Dhaka to provide services in clinical toxicology.
9. Improving the management of poisoning by establishing emergency medical care: training human resources with provision of drugs and logistics (cross-cutting issue with CBHC, HSM) Quality Care. Cross cutting issue: Linked to Community Based Health Care (CBHC), Secondary and Tertiary-level Hospital Management System (HSM).
10. Establish referral system. Cross cutting issue: Linked to Community Based Health Care (CBHC), Secondary and Tertiary-level Hospital Management System (HSM).

**Activities for prevention and treatment of snakebite including animal injury:**

1. Education and skill development (Cross cutting issue): Linked to Community Based Health Care (CBHC), Secondary and Tertiary-level Hospital Management System (HSM) and communicable diseases control (CDC) and non-health sector (Example PKSF). (i) Awareness creation regarding the consequences of animal and snakebite and mal practices of traditional healers. (ii)Training on appropriate first aid following animal and snakebite.
2. Environmental modification multisectoral co-ordination (non-health interventions and stewardship). (1) Remove bushes near habitation.
3. Legislation and standards Cross cutting issue: Linked to non-health sector and Communicable Diseases Control (CDC).
4. Emergency Medical Care Cross cutting issue: Linked to Community based health care (CBHC), Community Based Health Care (CBHC), Secondary and Tertiary-level Hospital Management System (HSM) and Communicable Diseases Control (CDC). (i) Development of Bangladesh snakebite policy/strategy based on WHO SEARO Guidelines 2016 and updating the National Guideline for Management of Snake bites. (ii) Provision of quality treatment snakebite:
5. Reduction of deaths by 25% by 2021 through improved management of snake bite: (a) (1) Provision of adequate polyvalent antivenom (purchased from Indian source) at UHC, DH, medical college hospital and BITID. (2) Provision of improved antivenom (AV): collection, processing and preservation of snake venom from the major venomous snake species that are medically relevant in Bangladesh, for the production of appropriate antivenom (multisectoral coordination with Ministry of Forestry, Department of Zoology of Chittagong University, Toxicology Society of Bangladesh, DGHS, and manufacturers of AV abroad). (b) (1) Improving community engagement: BCC for prevention, appropriate first aid, quick referral to UHC linked with (2) provision of appropriate treatment of snake bite at UHC, DH and MCH (including AV and supportive treatment) (cross-cutting issue with CBHC, HSM). (c) Training human resources for improving the management of snake bite at UHC, DH and MCH (cross-cutting issue with CBHC, HSM). (d) Development of alternative occupation opportunities for snake handlers and traditional healers (‘ohzhas’) (cross-cutting issue, multisectoral coordination with non-health, MOLG&RD).

**Activities for prevention of occupational injury:**

1. Education and skill development multisectoral co-ordination (non-health interventions and stewardship).
2. Environmental and engineering multisectoral co-ordination (non-health interventions, stewardship and regulatory).
3. Legislation and standardsmultisectoral co-ordination (non-health interventions, stewardship and regulatory).

**Activities for prevention of intentional injuries:**

1. **Education and skill development** Multisectoral co-ordination (health and non-health interventions and stewardship)
	1. Mass awareness for behavioral and social change through developing communication strategy and life skill based education.
	2. Promote psychological well- being, Resilience and family connectivity.
	3. Increase public awareness about social problem related to dowry and violence against women through family education, counseling and school education, adolescence education and peer support.
	4. Enhance social support network for high risk group.
2. **Environmental modification** multisectoral co-ordination (non-health interventions and stewardship).
3. **Legislation and standards** multisectoral co-ordination (non-health interventions, stewardship and regulatory).

**Activities for prevention and treatment- violence against women (GBV)**

Multi-sectoral Response Services of Gender-Based Violence (SGBV) through the establishing of one-stop centers (OCC), which provide integrated, multi-disciplinary services in a single physical location primarily by MoWCA. Key areas covered are Clinical, Legal and Psychosocial Support.

***Component D: Climate Change***

**Activities:**

1. Multisectoral National Policies and strategy in Bangladesh about greenhouse gas emissions, energy, transport, agriculture, and land use to address the driving forces and pressures contributing to climate change to be developed/updated. “Climate change adaptation (preparedness) and mitigation (prevention) can occur through policies and interventions adapted from treaty under the United Nations Framework Convention on Climate Change”.
2. Increase community awareness of health consequences of climate change.
3. Mass awareness is to be developed for increased plantation, avoiding carbon emitting vehicles, adopting carbon free transportation like bicycle, walking & to go for climate friendly housing & renewable energy.
4. Capacity assessment- Descriptions of the status of infrastructure and clinical capacity to respond to health impacts of climate sensitive conditions are needed.
5. Resilience of existing health systems is required to be increased against climate change. In view of that hospitals & health centers should be reinforced to withstand powerful storms, heat waves and other extreme weather events. It also must be ensured that water and sanitation services must be continued to function under flood and drought conditions. Specific sites will require to address region specific climate issue- example, North Bengal draught, salinity- in southern coastal area
6. Climate-sensitive injury and disease surveillance. To identify direct impacts of extreme weather events on public health systematic reporting of acute morbidity and mortality (e.g., blunt force trauma and drowning), sub-acute infectious disease impacts, influenza-like illness, vector-borne illness, and diarrhea may be made. By using geographic information system (GIS) one can map population proximity to flooding risk and health system capacity, linking disparate sources such as census estimates, hospital bed data, and evaluation data from healthcare site visits.
	1. Increase capacity in health services on Climate Change and related disease surveillance skills and techniques.
	2. Training of health service providers at field level, on feasible screening/diagnostic methods of the targeted Diseases.
	3. Sensitization and orientation of health facility staff on targeted climate attributed vector borne, water borne and emerging diseases etc.
7. Systematic documentation of climate-sensitive health outcome (mentioned above) in certain cyclone and flood prone upazilla.

***Component E: Occupational health***

**Activities:**

1. Situational analysis of health hazards of major occupations- farming, fishing, garments, migrant workers overseas and internal (slum dwellers migrating from rural areas), industry and ship breaking industry.
2. Based on activity one regulations for safety measures to be prepared and approved. (multisectoral health and non-health, stewardship and regulatory).
3. Strategy and preventive measures (occupational safety) and management of health hazards of major occupations will be prepared and further activities will be under taken. (multisectoral health and non-health, stewardship and regulatory).
4. Operation research and survey- health issues of farming community, rural migrants at slums, garments workers, migrant workers, and industry workers.
5. Industry- workers will require support for different occupational health problems.
6. General public and others may require advice related to proper application of principle of ergonomics- posture, back health, neck health, weight lifting, bed etc. A cross cutting issue with carpenters and industry (standards to be developed as basic as chair, bench, table, school desk, computer desk etc)

***Component F: Oral health***

**Activities:**

1. Promotion of oral hygiene by incorporating the topic in school education, school health, community education. BCC for avoiding unhealthy habits of tobacco consumption/chewing of different forms.
2. Managing common dental diseases including tooth extraction.
3. Development of National Oral health policy incorporating oral health education, preventive programs, and curative service programms.

***Component G: Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.***

**Substance abuse, including narcotic drug abuse:**

**Activities:**

1. Development of booklet manual on substance abuse to be used by field workers.
2. Development of IEC material, posters, leaflets for public awareness against illicit use of drugs and also for ‘Yaba’ and ‘Phensedyl’ abuse.
3. Mass media campaign against ‘Yaba’ abuse in young people.
4. Organizing awareness seminars/meetings against substance abuse for ‘Yaba’, Phensydil etc. (in coordination with other stakeholders Department of Narcotics).
5. Establishing health education program at urban/rural level College/ schools against ‘Yaba’, ‘Phensedyl’ and for other addictive substance abuse. Already incorporated in the school curriculum.
6. NGO collaboration activities like workshop/ seminars/ symposium on Substance abuse subject.
7. Capacity for diagnosis, treatment and rehabilitationof ‘Yaba’, ‘Phensedyl’ and other substance abuse increased. (In co-ordination with Department of Narcotics).

**Alcohol and related problems:**

**Activities:**

Situation analysis related to prevalence with special note to tribal areas, and adulteration of alcohol (methanol poisoning).

1. Updating the legislation related to alcohol production (including local produce), sale, consumption and related health hazards. (multisectoral coordination, health and non - health, stewardship and regulatory).
2. Health education/BCC: Targeted intervention among high-risk population to encourage consumption of alcohol within a safe limit or to quit drinking.
3. Provision of emergency and supportive care required to treat acute alcohol related toxicological crisis (Acute alcohol, methanol and ethylene glycol poisoning) at all health facilities. (Cross cutting with CBHC and HSM).
4. Diagnostic tools to determine blood alcohol level will be made available. The logistics for diagnosis and treatment of acute alcohol related problems will be made available in health care setting. (Cross cutting CBHC and HSM).
5. Training of the health care professionals and communities to manage alcohol related problems.
6. **Energy Drinks**

**Activities:**

Awareness about potential harm of energy drinks and restriction of energy drinks (cross cutting issue non-health sector, Dept. of Narcotics, food authority)

***Component H: Environmental Health hazards (Water, Arsenosis, Air, Soil)***

1. **Arsenicosis:**

**Activities:**

1. Updating of National Arsenic Mitigation policy and strategy (co-ordination with DOPHE).
2. Strengthening of mass awareness programs on Arsenic free safe drinking water (Health Education Bureau, CHCP/HA, CBHC).
3. Testing tubewell water at Health facilities for prevention of arsenicosis.
4. Improve patient screening (house to house searching) programs.
5. Identification, diagnosis and management of arsenicosis patient at UHC, DH, MCH. Selection of suitable new treatment regimen for arsenicosis. (Recommended by experts and from evidence). Present treatment: some commonly used anti-oxidants include beta carotene, vitamin E and vitamin C. Presently, 5-10% of salicylic acid and 10-20% of urea-based ointment for the treatment of keratotic lesions is the most common prevailing practice.
6. Refresher’s training- capacity building of human resources from different level and facilities for effective case management and referral.
7. Capacity building for scientific diagnosis of arsenicosis at Govt. Institute (NIPSOM, Dhaka/Toxicology Analytical Lab, HSM).
8. Strategic partnership with local bodies and community based organization regarding the mitigation of arsenicosis.
9. Further collaboration between DGHS and DPHE at field level to strengthen water screening at the community level.
10. Develop a national computerized database of arsenicosis patients. Long term follow up of patients.
11. Review of Bangladesh standard for safe arsenic level in drinking water (Dept. of Environment-BUET, BSTI, Public health engineers, chemists and arsenic experts).
12. Conducting surveys, research on arsenicosis.
13. **Lead Contamination:**

**Activities:**

1. Prevention of lead contamination of food and cosmetic by strict adherence of food regulations and reduce the use of lead containing pesticide. (Stewardship with Food authority, and Pesticide authority).
2. Identification of lead in food by testing rice, turmeric; in cosmetic ‘kajal, and lipstick (capacity to be developed or by collaborative research).
3. **Air pollution:**

**Activities:**

1. Diagnosis and management of COPD and ARI (NCD collaboration with CBHC, HSM, IMCI).
2. Implementation of the strategy by DoE (stewardship role of MOH, NCD DGHS).
3. **Noise pollution:**

**Activities:**

1. Creation of community awareness about health hazards of noise pollution.
2. Identification of noise level at strategically important sites in big cities (DoE).
3. Enforcement of law for prevention of noise pollution (DoE).
4. **Soil contamination:**

**Activities:**

Situation analysis of soil born disease by studies and Capacity to diagnose B. psudomelli (linked with CDC and HMS).

1. **Water, sanitation and other environmental health issues:**

Ensuring safe water, sanitation and hygiene (Goal 6, SDG) is a prerequisite for sustainable prevention of water borne diseases. In addition, increase salinity in water also contributes in high incidence of hypertension in the community (a climate change related issue as well). MOHFW may perform stewardship role in implementation of the relevant policies by other relevant ministries.

***Component J: Ear care***

1. **Hearing impairment:**

**Activities: Services at community clinic, union health centre, upazilla health complex**

1. Early identification, diagnosis, and treatment of common ear problems. Diagnosis and primary management of common ear diseases: i. Impacted wax, ii. Foreign bodies of ear, iii. Otitis externa, iv. Acute Otitis Media (AOM), v. Chronic Otitis Media (COM) and its complications, vi. Injuries to ears (CC, UHFWC, UHC, DH).
2. Behavior change communication:Provision of Health Education and Promotion of ear care. (CC, UHFWC, UHC, DH).
3. Development of IEC/educational materials for prevention of deafness and hearing impairment.
4. Providing support with ear health education within the community by mobilizing trained volunteers, school teachers and Imams.
5. Development of primary ear care awareness using appropriate media;
6. Special campaign for the development of awareness in the community on prevention of deafness and hearing impairment.
7. Special campaign in the educational institution for the development of awareness among the student and teacher on the prevention of deafness and hearing impairment.
8. Developing a primary ear care booklet & other educational material to mobilize community resources to improve ear health;
9. Diagnosis and causes of sensorineural hearing loss. (DH)
10. Assessment of hearing levels (whispered & conversational voice tests, tuning fork tests and the use of screening audiometer. (DH)
11. Awareness about ototoxic drugs and sources of noise-induced hearing loss.

***Component K: Disability***

Support for disabled (differently abled): (Cross cutting CBHC, HSM)

**Activities of:**

1. Disabled friendly health facility- priority in reception and service, ease for movement, toilet (CBHC, HSM).
2. Human approach to disabled patient by health care professionals (skill development of HC professionals).

***Component L: Elderly people/ senior citizens: (Cross cutting CBHC, HSM)***

**Activities:**

1. Priority
2. Support and assistance- stick, wheel chair
3. Approach with respect & dignity.

***Component M: Physical therapy/Physiotherapy: (Cross cutting CBHC, HSM, ME&HMD)***

**Activities:**

May or may not be associated with disability.

Various exercise (neck, back pain, Osteoarthritis, paralysis, following stroke), devices, Human resources- PSE.

***Component N: Prevention of Thalassaemia: Cross cutting issue with HSM***

**Activities**:

The BTPP will be working on the following: (i) Awareness about Thalassaemia. (ii) Screening of carriers (extended family screening). (iii)  Pre-marital screening for the general public. (iv) Genetic Counseling (v) Pre-natal Diagnosis

***Component O: Emergency preparedness and Response (EPR), Post Disaster Health Management***

**Activities:**

1. Strengthening capacity of hospital services (UHC, DH, MCH) on emergency preparedness and response.
2. Establishing System for early warning sign for early preparation for health service delivery in disaster prone area (coordination with non-health sector)
3. Training of community volunteers on disaster preparedness and response and establish network of volunteers.
4. Establishment of buffer stock of drugs and logistics for emergency preparedness
5. Electronic database, Website and its maintenance at the DGHS (Logistics, human resource & IT and Network).
6. Initiate program on ‘Hospital Preparedness in Emergencies’ HOPE for hospital personnel
7. Development/update of promotion material on Health Impact of Community Disaster Preparedness and Response.
8. Development and publication of posters, pamphlets, booklets and books to spread the message of Emergency Preparedness and Response.
9. Training of community based Workers on Mass Casualty Management.
10. Increase capacity in health services on Post Disaster Health Management skills and techniques
11. Coordination of Emergency Medical Service (EMS) and School Health Promotion to reduce health hazards during disasters and emergencies.
12. Development of documentary films/TV spots/Radio spots on different Disaster health consequences etc.
13. Strengthening collaboration between Directorate General of Health Services and different stakeholders to increase coverage of Emergency Preparedness and Response at the community level.
14. Capacity building of human resources and facilities for effective Post Disaster Health management and referral.
15. Strategic partnership with local bodies and community based organizations regarding the activities of Response and Recovery during Disaster.
16. Dissemination of surveillance data through Periodic publication of newsletters, reports.
17. Provide Support to different associations, professional bodies and civil society organizations for comprehensive disaster health management.
18. Countrywide Awareness building campaign through IEC using different methods & media
19. Awareness workshop & Coordination/Sensitization meetings for health service providers, community leaders, Teachers, Social workers & other stake holders on Emergency Preparedness and Response (EPR) throughout the country.
20. Gender related issues (including gender based violence): To tackle (1) injury, (2) downing and (3) snake bite, (4) MNCAH issues, (5) CDCs, (6) non-communicable diseases (including mental health) of women NCA during disaster.
21. Emergency Medical Services (EMS) cross cutting issue (with CBHC and HSM**):** Training of Health Service Providers (doctors, nurses and field workers) on Emergency Medical Services. Review and Updating of Training/Workshop Modules.Strengthening emergency services at the district and upazila level to bring quality health care closer to the door steps of the people.

***Component P: Palliative Care***

In Bangladesh, palliative care services are very limited. There are only 6 comprehensive palliative care programs are available in the country and all are in Dhaka. There is very little awareness about the field of palliative care among physicians and other health care providers. Under the 4th HPNSP initiative will be taken to improve the quality of life of patients with limited diseases in Bangladesh through the development of a palliative care awareness and capacity building program, targeting medical professionals.

***Monitoring, Research and Evaluation: Evidence generation for control and prevention of NCDs:***

1. Development of monitoring and evaluation framework, and monitoring checklist.
2. Effect of community interventions (to be made in next sector program) on risk factors and NCD- prospective cohort- rural and urban areas
3. Feasibility of using IT in improving management of acute coronary syndrome and stroke.
4. Prevalence of diabetes mellitus in Bangladesh
5. KAP of the migrants about occupational health/NCDs before and after residing abroad (interventions may be made before going for job first time)
6. Situation of NCDs among migrants
7. Situation analysis: common occupational health problems among the major occupational groups of Bangladesh; alcohol related health problems; other substance abuse issues; travel-related poisoning (‘commuters poisoning’)
8. Demonstration of links between community engagement and strengthened UHC, and improved outcomes and reduced cost of snake bite treatment at DH/MCH.
9. Evaluation of the Operational Plan.
10. Setting up hospital cancer registries in 19 medical colleges.
11. Pilot population based cancer registry covering both urban and rural area.
12. Conduct national school health survey.
13. Conduct tobacco law compliance assessment.
14. **Cross-Cutting Issues including Poverty, Environment, Climate Change, Women & Children and Gender etc.**
15. Linked with Strategic Thematic Group -3, MNCA&H. (i.i) NCD management linked with MNACH- diagnosis and treatment of hypertension and diabetes in pregnancy. (i.ii) Screening of cancer cervix and breast- linked with MNACH. (i.iii) CD and NCD link- (a) TB/HIV linked with diabetes mellitus. (b) Diabetes linked with melliodosis. (c) Cancer linked with acquiring infections.
16. Other cross cutting issues: Stroke, CAD, cancer, COPD treatment available at tertiary hospitals- medical college hospitals (MCH) MCH and specialized institutes: With CBHC, HSM, urban health, DGDA, Medical education on NCDs:

**General activities required to coordinate all NCD activities:**

Establishment of NCD directorate /designation of NCD Prevention Centre. Coordination mechanism facilitation. Possible site National Rheumatic Fever Prevention centre may be renamed as NCD Directorate with space and HRs absorbed (considering the drastically reduced number of cases of RF and increasing attention requires for addressing NCDs)

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|  |  | **Dom.** | **SC/O** | **CC** | **UH&FW** | **UHC** | **DH** | **MCW** |  | **CRHCC** |  | **PHCC** |
|  | **Component & sub-component** | **R** | **C/USC** | **C** |  |  |
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|  | NON-COMMUNICABLE DISEASES |  |  |  |  |  |  |  |  |  |  |  |  |
|  | HYPERTENSION (HTN) |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Promote healthy lifestyle for HTN and other | Y |  | Y | Y | Y | Y | Y |  |  | Y |  | Y |
|  | NCD control |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Diagnosis of HTN |  |  |  | Scr | Y | Y | Y |  |  | Y |  | Y |
|  | Management of HTN |  |  |  |  | Y | Y | Y |  |  | Y |  | Y |
|  | Lab follow-up of HTN cases |  |  |  |  |  | Y | Y |  |  | Y |  | Y |
|  | DIABETES MELLITUS (DM) |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Diagnosis of DM |  |  |  | Scr |  | Y | Y |  |  | Y |  | Y |
|  | Management of Type II DM |  |  |  |  |  | Y | Y |  |  | Y |  | Y |
|  | Management of Type I DM |  |  |  |  |  |  | Y |  |  |  |  |  |
|  | Identification and referral of long-term |  |  |  | Y | Y | Y | Y |  |  | Y |  | Y |
|  | complications |  |  |  |  |  |  |
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|  | NCD SCREENING AND MANAGEMENT BASE | D ON TOTAL RISK ASSESSMENT (WHO PEN APPROACH) |  |  |  |  |
|  | Screening for Risk Factors of CVD: |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -Family History of CVD/DM/kidney |  |  |  |  |  |  |  |  |  |  |  |  |
|  | disease |  |  |  | Cli |  |  |  |  |  |  |  |  |
|  | -High Blood Pressure |  |  | Clinica |  | Clinical & | Clinical |  |  |  |  |  |
|  |  |  | nic | Clinical |  |  | Y |  | Y |
|  | -Smoking |  |  | l | lab | & lab |  |  |  |
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|  | -Overweight |  |  |  |  |  |  |  |  |  |  |  |
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|  | -High Total Cholesterol |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -High Blood Sugar |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  | Partial | ial | Partial & |  |  |  |  |  |  |  |
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|  | Determine risk of CVD in next 10 years |  |  |  | r |  |  |  |  |  |  |  |  |
|  | Manage conditions and I&R complications |  |  |  |  | Y | Y | Y |  |  | Y |  | Y |
|  | CANCER |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Counselling on screening of cervical and | Y |  | Y | Y | Y | Y | Y |  |  | Y |  | Y |
|  | breast cancers |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Breast Cancer |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Teaching of breast self-examination | Y |  | Y | Y | Y | Y | Y |  |  | Y |  | Y |
|  | Clinical Breast Examination |  |  |  | Y | Y | Y | Y |  |  | Y |  | Y |
|  |  |  |  |  |  |  |  | Y (off |  |  |  |  |  |
|  | Mammography |  |  |  |  |  |  | ESP) |  |  |  |  |  |
|  |  |  |  |  |  |  |  | Y (off |  |  |  |  |  |
|  | Lumpectomy & mastectomy |  |  |  |  |  |  | ESP) |  |  |  |  |  |
|  | Cervical Cancer |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Screening for cervical cancer (Visual |  |  |  |  |  | Y | Y |  |  |  |  |  |
|  | Examination Acetic Acid) |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Colposcopic Examination (excision & |  |  |  |  |  |  | MC (off |  |  |  |  |  |
|  | biopsy) and cryotherapy |  |  |  |  |  |  | ESP) |  |  |  |  |  |
|  | OTHER NCDs |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Arsenicosis |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Counselling on the consumption of safe water | Y | Y | Y | Y | Y | Y |  |  | Y |  | Y |
|  | Identify, treat skin conditions and refer |  |  |  |  |  | Y | Y |  |  | Y |  | Y |
|  | Case management with antioxidants at |  |  |  |  |  |  |  |  |  |  |  |  |
|  | TERTIARY LEVEL |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Chronic Obstructive Pulmonary Disease (COPD) |  |  |  |  |  |  |  |  |  |  |  |
|  | Counselling on smoking cessation | Y | Y | Y | Y | Y | Y |  |  |  |  |  |
|  | Diagnosis and management of ambulatory |  |  |  |  | Y | Y | Y |  |  |  |  |  |
|  | cases |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Diagnosis and management of inpatient |  |  |  |  |  | Y | Y |  |  |  |  |  |
|  | cases |  |  |  |  |  |  |  |  |  |  |
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|  | MENTAL HEALTH |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Counselling on identification and support to |  |  |  |  |  |  |  |  |  |  |  |  |
|  | mental health cases, including fighting stigma | Y | Y | Y | Y | Y | Y |  |  | Y |  | Y |
|  | and others |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Identification of signs of mental health |  |  |  | Y | Y |  |  |  |  | Y |  | Y |
|  | conditions & referral |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Diagnosis of priority conditions: |  |  |  |  |  | Y | Y |  |  | Y |  | Y |
|  |  |  |  | **Community** |  | **Union** | **Upazila** | **District** |  | **Urban** |
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|  | **Component & sub-component** |  | **R** | **C/USC** | **C** |  |
|  |  |  |  |  |  |  |  |  |  |
|  | -Autism & neurodevelopmental disorders |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -Epilepsy |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -Common disorders: |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -depression, |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -psychosis, |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -anxiety, |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -substance abuse |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Management of priority, common MH |  |  |  |  |  |  | Y | Y |  | Y |  | Y |
|  | conditions |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Inpatient care for acute, severe cases |  |  |  |  |  |  |  | Y |  |  |  |  |
|  | Support to rehabilitation of mental health |  |  |  |  |  | Y | Y | Y |  | Y |  | Y |
|  | patients |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | SEXUAL AND GENDER-BASED VIOLENCE |  |  |  |  |  |  |  |  |  |  |  |
|  | Case identification & recognition |  | Y |  | Y | Y | Y | Y | Y | Y | Y |  | Y |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | First-point counselling |  |  |  |  |  | Y | Y | Y | Y | Y |  | Y |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Prevention of Pregnancy: emergency |  |  |  |  |  | Y | Y | Y | Y | Y |  | Y |
|  | contraception |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Treatment of minor injuries |  |  |  |  |  | Y | Y | Y | Y | Y |  | Y |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Prophylaxis for STI |  |  |  |  |  | Y | Y | Y | Y | Y |  | Y |
|  |  |  |  |  |  |  |  |  |  |
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|  | Prophylaxis for HIV |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Psychological support |  |  |  |  |  |  | Y | Y | Y | Y |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
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|  | Medic-legal examination |  |  |  |  |  |  | Y | Y | Y | Y |  | Y |
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|  | EAR CARE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Awareness on prevention of hearing | Y |  | Y | Y | Y | Y | Y |  |  | Y |  | Y |
|  | impairment |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Management of acute suppurative otitis |  |  |  |  | Y | Y | Y | Y |  |  | Y |  | Y |
|  | media |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Management of chronic otitis media |  |  |  |  |  |  | Y | Y |  |  | Y |  | Y |
|  | Identification & management of hearing |  |  |  |  | Ref | Refer | Refer | Y (off |  |  |  |  |  |  |
|  | impairment |  |  |  |  | er | ESP) |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | DENTAL CARE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Promotion of oral hygiene | Y |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |
|  | Treatment of common dental diseases |  |  |  |  |  | Y | Y | Y |  |  |  |  |  |  |
|  | (gingivitis, caries, etc) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Tooth extraction |  |  |  |  |  |  | Y | Y |  |  |  |  |  |  |
|  | EMERGENCY CARE |  |  |  |  |  |  |  |  |  |  |  |
|  | Road traffic-related injuries & trauma care |  |  |  |  |  |  |  |  |  |  |  |
|  | -stabilization & referral |  |  |  |  |  | Y | Y |  |  |  |  |
|  |  |  |  |  |  |  |  | Y (off |  |  |  |  |
|  | -management of complex trauma cases |  |  |  |  |  |  | ESP) |  |  |  |  |
|  | Awareness on child injury and drowning | Y |  | Y | Y | Y | Y | Y |  | Y |  | Y |
|  | prevention measures |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | Drowning |  |  |  | Y | Y | Y | Y |  | Y |  | Y |
|  | First aid in minor injuries |  |  |  | Y | Y | Y | Y |  | Y |  | Y |
|  | Poisoning& snakebite |  |  |  |  |  | Y | Y |  |  |  |  |
|  | GERICATRIC CARE? |  |  |  |  |  |  |  |  |  |  |  |
|  | Specific conditions (e.g. NCD) included in |  |  |  |  |  |  |  |  |  |  |  |
|  | other sections |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

1. **Relevant Result Frame Work Indicators (RFW) and OP Level Indicators:**
	1. **Relevant RFW Indicators:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Indicators** | **Unit of Measurement** | **Base Line****(With Year and Data Source)** | **Projected Target** |
| **(1)** | **(2)** | **(3)** | **(4)** |
|  | No. of Upazila providing Hypertension & Diabetes screening  | No Baseline Data | 200 UHC by 2022 |
|  | No. of Anti Tobacco Campaign | 1,000 (HPNSDP: 3rd Sector Programme) | 2,000 campaign by 2022 |

* 1. **OP Level Indicators (Output/Process):**

| **Sl.** | **Indicators** | **Unit of Measurement (Means of Verification)** | **Baseline****(with Year and Data Source)** | **Projected Target** |
| --- | --- | --- | --- | --- |
| **Middle of the Program (by June 2020)** | **End of the Program (by June 2022)** |
| **(1)** | **(2)** | **(3)** | **(4)** | **(5)** | **(6)** |
|  |  Proportion of adults with high blood pressureNote: (Systolic blood pressure ≥140 and/or diastolic blood pressure ≥90 among persons aged 25 years.) GI 6. Prevalence of hypertension among adult population SDG\* CORE | % NCD STEPS NCD-RF | 17.9%(NCD STEPS 2010)BDHS, every 3 years/NCD-RF, every 2 years | 17% | 17% |
|  | Autism diagnosis and management at DHs | Number of DHs( Admin record) | No Base line Data | 25 | 64 |
| 3 | Number of Upazilas covered by awareness campaigns on road traffic injuries and childhood, drowning)  | Number of Upazilas (NCD InfoBase/ Admin record) | No Base line Data | 200 | 490 |
| 4. | Development and implementation of NCD management model (diabetes and hypertension) at community clinics with referrals to Upazila Health Complexes | Number of CCs and UHcs (NCD InfoBase/ Admin record) | No Base line Data | 20 UHC200 CC | 200 UHC1. CC
 |
| 5. | Setting up hospital cancer registries in Medical Colleges | Number (Admin record) | No Base line Data | 10 | 19 |

**11.3 Source and Methodology of Data Collection to Measure/Prepare Annual Progress Report:**

1. Monthly and Quarterly Report form from Upazilla and district level
2. Monthly Progress report
3. Annual Performance Report (APR)
4. MIS report
5. BDHS Survey
6. Global Adult Tobacco Survey (GATS)
7. Tobacco Survey.
8. STEPS Survey
9. **Location-wise break-up of the components (can also be attached as Annexure):**

**(Taka in Lakh)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name of the Components** | **National** | **Name of Division** | **Name of District** | **Name of Upazilla** | **Name of the Activity** | **Amount** |
|  |  |  |  |  |  |  |
| Major NCD (CVD, Cancer, Diabetes, COPD, Hypertension)  | √ | AllDivisions | All Districts | All | Mass Awareness, Capacity Building, Screening & Management of of Major NCD, Supply of Medicines to control of Major NCDs | 73459.27 |
| Mental & Neurological Health, Autism & Neurodevelopmental Disorder and Alcohol | √ | AllDivisions | All Districts | All | Mass Awareness, Capacity Building, Workshop | 14686.00 |
| Injury Prevention including Road safety, Drowning, Violence against Women, Poisoning & Snakebite, Burn and EPR | √ | AllDivisions | All Districts | All | Mass Awareness, Capacity Building, Workshop | 10570.00 |
| Oral Health, Renal Disease, Arsenicosis, Climate Change and other NCDs | √ | AllDivisions | All Districts | All | Mass Awareness, Capacity Building, Workshop | 11777.00 |
| Disability, hearing impairment, Physical disability and Occupational Health Safety | √ | AllDivisions | All Districts | All | Mass Awareness, Capacity Building, Workshop | 1335.00 |
| **Total=** |  |  |  |  |  | **111827.27** |

1. Organogram (Annexure-I):
2. Log Frame (As per Annexure-II):
3. Procurement Plan for Goods, Services (Separate table for a. Goods & c. Services)

[(As per Annexure-III (a) & (c)]:

1. List of Machinery & Equipments (As per Annexure-IV):
2. List of Furniture & Fixture (As per Annexure-V):
3. List of Vehicle (As per Annexure-VI):
4. List of Training and Estimated Cost (As per Annexure-VII):
5. Related Supporting Documents (if any):
	* 1. Appendix-I: Table for Training details
		2. Appendix-II: Table for Seminar/Workshop details
		3. Appendix-III: Table for Foreign Training details
		4. Appendix-V: Implementation Matrix
		5. Appendix-VI: Probable Research/Study Activities
		6. Appendix-VII: Manpower details
		7. Appendix-VIII: Year wise Procurement Plan for Goods
		8. Appendix-XI: Year wise Procurement Plan for Services

Signature of the Officers Responsible for

Preparation of this OP with Seal & Date

Recommendation & Signature of the Head of the Agency with Seal & Date

Approval & Signature of the Secretary

of

The Sponsoring Ministry/Division

with Seal & Date

**Annexure-I**

**Organogram for NCD**

Line

Director

Program Manager-II

Program Manager-I

Program Manager-III

Deputy Program Manager-3

Component B: Mental Health, Autism, NDDs and Substance abuse & Alcohol

Component G: Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

Deputy Program Manager-1

Component A: Major NCDs (Cardiovascular Diseases, Diabetes, COPD, Cancer)

Deputy Program Manager- 5

Component C: Injury including poisoning and snakebite

Deputy Program Manager-2

Component E: Occupational Health Component H: Environmental Health hazards (Water, Arsenicosis, Air, Soil)

Deputy Program Manager-4

Component K: Disability

Component M: Physical therapy/Physiotherapy

Component L: Elderly people/ senior citizens

Component P: Palliative Care Component J: Ear care Component F: Oral health Component N: Prevention of Thalassaemia

Deputy Program Manager-6

Component D: Climate Change

Component O: Emergency preparedness and Response (EPR), Post Disaster Health Management

**Annexure-II**

**Logical Framework of Non Communicable Disease Control (NCDC), January 2017- June 2022**

 (i) Planned date completion: June 2022

(ii) Date of summary preparation: January 2017

|  |  |  |  |
| --- | --- | --- | --- |
| **Narrative Summary** | **Objectively Verifiable Indicators** | **Means of Verification** | **Assumptions** |
| **Goal:** ToReduce mortality and morbidity caused by non-communicable diseases including control of risk factors and other public health problems | Reduced mortality and morbidity caused by non communicable diseases and control of NCD risk factors | BDHS, SBRS, LD Report,Administrative Report | Morbidity & Mortality caused by NCDs will be reduced  |
| **Purpose:**Strengthening of evidence based measure for early detection, prevention & management of NCDs & control of NCDs risk factors  |  1. Screening of 50% people on detection of hypertension within 2022
2. Screening of 50% people aware on detection of diabetes within 2022
 | NCD survey, House to House searching,BDHS | Sustainability of the programme  |
| **Outputs:*** Strengthening diagnosis and management of kidney diseases and diabetes patients in primary, secondary and tertiary hospitals
* Strengthening mass awareness on NCD risk factors all facilities in the health system
* Early detection, prevention & management of cancer, COPD, Injury and other NCDs (CVD, Arsenic, Renal Disease, Thallassemia, Oral Health, Air Pollution, Disability, hearing impairment, Noise pollution etc)

Detection, treatment & management of mental health, Autism & NDDs, Alcohol & drug abuses.Environmental Health and Climate Change focusing the emergency preparedness and response (EPR), mitigation and adaptation relating to longer-term health effects of climate change | * 491 Upazilla and below health facilities providing hypertension screening
* 491 Upazilla and below health facilities providing diabetes screening
* 1,50,000 service providers (Doctors, Nurses, SACMO & Field Staffs) trained on major NCDs & other NCDs screening & management
* 95,000 peoples aware on injury (traffic, child and other injuries) through workshop
* 200 number of Upazilla level hospital & District Hospital facilities providing early detection of Cancer (Cervix, Breast, and Oral) screening
* 491 Upazilla and below health facilities providing Mental health, Autism & NDDs screening facilities
* 491 Upazilla with trained Service Providers (Doctors, Nurses, SACMO & Field Staffs) for screening/management of Mental health, Autism & NDDs
* 1200 Educational Institutes (Schools/College) covered for Anti Tobacco, Alcohol, Salt, Sugar, against conventional cooking system campaign
* 13 districts provided occupational health safety training and awareness in factories
* 64 disaster prone Upazilla completed training of Health personnel on disaster preparedness
* Promote the Establishment of public health Environmental Occupational (EOC) for Environmental and Occupational Safety and Health
* 75,000 service providers (Doctors, Nurses, SACMO & Field Staffs) trained on Arsenicosis screening and management
* 200 upazilla provided disability, noise pollution, energy drink, hearing impairment, thalassemia, renal disease etc training & awareness programme
* Availability of medicines & MSR/logistics in all upazilla & below level facilities to control of major & other NCDs
 | OP report,Administrative Report, Event ReportOP report,Administrative Report, Event ReportOP report,Administrative Report, Event ReportOP report,Administrative Report, Event Report  | Support from HPNSP continuedSupport from HPNSP continuedSupport from schools, College, different stakeholders and NGOs received Reporting system introduced and regularly updated  |
| **Inputs/activities:**1. Screening of NCDs and promotion of NCD services
2. Screening of Mental Health, Autism & NDDs
3. Injury, Drowning Prevention
4. BCC activities
5. Establishment of NCD resource center
6. NCD surveillance
7. Curative care for NCD
8. Cancer registry
9. Capacity Building
10. Occupational health
11. Hospital Preparedness in Emergencies
12. Awareness on NCDs
 | * Implementing the strategic action plan on NCD, Injury Preventio
* Tobacco Control (Target-Output)
* Strengthen BCC activities for prevention of all Major NCDs & other NCDs
* Establishment of NCD Coordination Cell and dissemination of information
* NCD surveillance and screening
* Conduct National NCD survey
* Organize health promotion in school/College/Madrasha/University for raising awareness and prevention of NCD
* Impart curative care for NCD
* Initiation of Cancer registry
* Piloting on Model Upazilla for NCD prevention, detection, treatment & referral best practice hospitals on major NCDs control, injury prevention, Autism & NDDs
* Arrangement of Training , Advocacy for factory owners and factory management for prevention of occupational health hazards
* Mass awareness among workers on occupation specific health problem, or disease, existing laws, rights and privileges
* Ensuring the availability of appropriate and user’s friendly Personal Protective Equipment (PPE)
* Initiate program on Hospital Preparedness in Emergencies (HOPE) for hospital personnel
* Establishing System for early warning sign for early preparation for health service delivery in disaster prone area
* Training for community volunteers on major NCDs & Disaster Preparedness and response
* Conduct base-line study on climate change and health impact in climate sensitive areas
* Conduct operational research & survey on major NCDs & their risk factors (Tobacco, Salt, Sugar), mental health, Autism & NDDs
* Procurement of medicines & MSR/logistics in all upazilla & below level facilities to control of major & other NCDs
* Developing guideline, promotion material and conduct training for health personnel on efficient energy use during service delivery at all level of health care services
* Develop reporting and recording system for major NCDs, Mental health, Autism & NDDs & Injury cases at the district and Upazilla level
* Improve patient screening (house to house searching) programs
* Capacity building of human resources and facilities for effective case management and referral
* Strategic partnership with local bodies and community based organization regarding the mitigation of Arsenicosis
 | OP Report, Administrative Report,Study report | Smooth coordination with NICVD, Diabetic Association, NIMH, BSMMU, NICRH, IEDCR and other stakeholders for programme established and maintained Availability of manpowerAdequate fund allocation Periodic program review mechanism established On time funding of the OP availabilityTimely funding of the OP received  |

 **Appendix-VII**

**TOR (Provisional) of Officers under Non-communicable Diseases Control, DGHS**

|  **Sl No** | **Name of the Post** | **Number of post** | **Task / Job to be done** | **Pre qualification for recruitment** | **Mode of Recruitment** | **Payment at the Grade** | **Remarks** |
| --- | --- | --- | --- | --- | --- | --- | --- |
|
| 1 | Technical Consultant | 5 | 1. Provide technical support to Develop Strategic Plan & Action Plan of NCDC Programme to ensure the Quality of health care services in Government and Private health sector.
2. Strengthening the capacity for planning, implementation & evaluation of NCDC Programme
3. Develop operation plan with the collaboration of Line Director, NCDC, DGHS.
4. Making Liaison with LD, NCDC, DGHS
5. Project approach & Implementation and ensure the critical institutional step during implementation.
6. Responsible for conducting training programme, schedule, budgeting, module development.
7. Co-ordination between Project office & Line Director
8. Making liasion with different related organization
9. Any other Job assigned by the LD or higher authority.
10. To assist in survey & research activities.
11. Document Preparation
 | 1. Must be medical graduate, MPH & other Post-graduate degree of public health
2. Working experience in Total Quality Management in Health Services Management for 10 years
3. Working Experience in managing the programme/project management of health sector
4. Must have Computer literacy in MS word, Excel, Power point, web browsing/Email etc.
 | Direct Recruitment | Grade 4 |   |
| 2 | Surveillance Medical Officer | 12 | 1. To assist in implementation of NCDC Programme
2. collaboration and coordination with the DPMs
3. Liaison with different organization
4. Provide technical assistance in NCD Surveillance & Research
5. Data Entry & reporting
6. Any other Job assigned by the LD or higher authority.
 | 1. Must have Medical/Dental graduate
2. Working experiences in planning, budgeting, monitoring and evaluation process of health sector programme for 02 years
3. Must have Computer literacy in MS word, Excel, Power point, web browsing/Email etc.
 | Direct Recruitment | Grade 9 |   |
| 3 | Field Monitoring Officer | 12 | 1. Work together with the PM, DPM & SMO to establish an effective implementation of activities
2. Prepare the Log frame and statistic of QA
3. Regular DATA entry of activities
4. Data Entry & reporting
5. Any other Job assigned by the LD or higher authority.
 | 1. Graduation in any discipline with computer skill; Fluency in English;
2. Experience in using computer word processing packages (e.g., Word, Excel, Power Point & Access).
 | Direct Recruitment | Grade 10 |   |

 **Appendix-VIII**

**IMPLEMENTATION MATRIX**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl No** | **Name of Intervention/Activity** | **Responsibility** | **Supervised by** | **Name of cross-cut Ops** | **Sub Activities** |
|  |  | **Main/Primary** | **Secondary****(OP)** | **Others****(Outside this OP)** |  |  |  |
|  | Development, formulation and up gradation of National Strategic Papers | DPM(All as per their area of responsibility) | Programme Manager(I, II & III) | LD, CBHC and HSM/MoSW | LD, NCDC | CBHC/HSMOthers Sector:MoEnv, MoSW | Committee Meetings, Seminar/Workshop, printing and publications/TA Support |
|  | Capacity Building of Health Service Providers and relevant stakeholders through orientation and training (including module preparation & up gradation of previous module)  | DPM(All as per their area of responsibility) | Programme Manager(I, II & III) | LD,CBHC/HSM/IST | LD, NCDC | IST/CBHC/NES/Mo Industries/DPHE | Preparation of Modules, ToT for core trainers and training to the service providers |
|  | Mass awareness raising activities | DPM(All as per their area of responsibility) | Programme Manager(I, II & III) | LD, HEP | LD, NCDC | HEP/IEC/Mo Information/DPHE/MoT (BRTA)/MoEnv/MoSW | IEC Committee Meeting, Advocacy and advertisement in printing and mass media, printing and publication of IEC materials, production of documentary films, electronic billboard and other related materials |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Piloting, model demonstration and scale up | DPM(All as per their area of responsibility) | Programme Manager(I, II & III) | Others(Outside this OP)- | LD, NCDC | - | Strengthening NCD corners, NCD model upazila, Well Women Clinic initiative: Supplies and services, MSR, Training.  |
|  | Strengthening Surveillance System and Management Information System  | DPM(All as per their area of responsibility) | Programme Manager(I, II & III) | LD, HIS/MIS/CDC(Surveillance)/HSM/CBHC | LD, NCDC | - | IT Logistics, Software development, training, website development and Networking. |
|  | Supporting institutional development | DPM(All as per their area of responsibility) | Programme Manager(I, II & III) | LD, HSM(Shishu Bikash Kendra) | LD, NCDC | MoWCAMoDMR | Logistics, Pharmaceuticals products and other equipments, training. |
|  | Operational Research and Survey |  | Programme Manager(I, II & III) | LD, CBHC, Planning, SWPMM, TRD | LD, NCDC | Other Sector: MoEnv/MoSW | Preparation of TOR, Pre-review, EOI, Evaluation of Proposals, Approval and contract out. |

 **Appendix-IX**

**Non Communicable Disease Control (January 2017 - June 2022)**

**List of Medicines (4862)**

**Drug List for Diabetes Mellitus**

|  |  |  |
| --- | --- | --- |
| **SL No** | **Preparation** | **Name of Items** |
|  | Tablet | Glibenclamide 5mg |
|  | Tablet | Glicalzide 80mg/30 mg |
|  | Tablet | Gilipizide 5mg |
|  | Tablet | Glimepiride 1 mg |
|  | Tablet | Metformin HCL 850mg |
|  | Tablet | Metformin 500mg |
|  | Tablet | Linagliptin – 5 mg |
|  | Tablet | Repaglinide |

**List of medicines for Hypertension**

|  |  |  |
| --- | --- | --- |
| **SL No** | **Preparation** | **Name of Items** |
|  | Tablet | Amlodipine 5 mg |
|  | Tablet | Propranolol 10mg/40mg |
|  | Tablet | Atenolol 50 mg |
|  | Tablet | Carvidolol 6025 mg/12.5mg |
|  | Injection | Frusemide 20mg/2ml |
|  | Tablet | Metoprolol 50mg |
|  | Tablet | Captopril 25mg |
|  | Tablet | Enalapril meleate 5mg/10mg |
|  | Tablet | Losartan potassium25mg/50mg |
|  | Tablet | Valsartan 40mg/80mg/160mg |
|  | Tablet | Thiazide 25mg/50mg |
|  | Tablet | Frusemide 40mg and Torasemide 2.5mg |
|  | Tablet | Spirolactone 25mg/ Spirolactone 50mg+Frusemide20mg |
|  | Tablet | Thiazide 50mg +Amiloride 5mg |
|  | Tablet | Thiazide 25mg + Triamtrene 50mg |
|  | Injection | Manitol 20% |
|  | Tablet | Acetazolamide 250mg |
|  | Tablet | Atenolol 50mg +Amoldipine 5mg |
|  | Tablet | Benzapril 10mg + Amoldipine5mg |
|  | Tablet | Indapamide1.25mg +Perindopril 4mg |
|  | Tablet | Losartan 50mg+Hydrochlorothiazide12.5 mg |
|  | Tablet | Valsartan 80mg+Hyrochlorthiazide 12.5mg |

**List of Medicines for Cancer**

|  |  |  |
| --- | --- | --- |
| **SL No** | **Preparation** | **Name of Items** |
|  | Tablet | Busulphan 2mg |
|  | Tablet | Chlorumbucil 2mg |
|  | Injection | Endoxan 1gm/2gm /vial |
|  | Tablet | Malphalan 2mg |
|  | Injection | Uromitexan 400mg/ampoule |
|  | Injection | Bleomycin 15mg/ampoule |
|  | Injection | Mitomycine 10mg/vial |
|  | Tablet | Capecitabine 500mg |
|  | Injection | Fluorouracil 250mg in 10ml |
|  | Injection | Gemcitabine |
|  | Tablet | Mercaptapurine 2.5mg |
|  | Tablet | Methotrexate 50mg |
|  | Injection | Methotrexate 50mg/vial |
|  | Tablet | Folinic acid15mg |
|  | Injection | Folinic acid15mg |
|  | Injection | Etoposide 20mg/ml |
|  | Injection | Vinblastine |
|  | Injection | Vincristine 2mg/2ml |
|  | Injection | Bevacizumab 25mg/ml |
|  | Injection | Cisplatin 50mg/vial |
|  | Injection | Docetaxel 20mg |
|  | Capsule | Imatinib 100mg |
|  | Injection |  Irinotecan 20mg/ml |
|  | Injection | Paclitaxel 30mg/5ml vial |
|  | Capsule | Retinoic acid10mg |
|  | Injection | Herceptin 440mg/vial |
|  | Tablet | Azathioprine 50mg |
|  | Injection | Rituximab 10ml/50ml vial |
|  | Injection | Interferon |
|  | Tablet | Flutamide 250mg |
|  | Tablet | Tamoxifen 10mg/20mg |
|  | Injection | Filgrastim30 million unit/1ml |
|  | Injection | Lenograstim 34 million I.U |
|  | Injection | Ondansetron 8 mg/4 ml Injection |
|  | Tablet | Prednisolone 20 mg Tablet |
|  | Capsule | Tranexamic Acid 500 mg Capsule |
|  | Tablet | Vinpocetine 5 mg Tablet |

**List of Medicines for COPD**

|  |  |  |
| --- | --- | --- |
| **SL No** | **Preparation** | **Name of Items** |
|  | Tablet | Salbutamol 4mg |
|  | Syrup | Salbutamol |
|  | Inhaler | Salbutamol |
|  | Inhaler | Salmeterol |
|  | Tablet | Terbutaline 2.5mg |
|  | Syrup | Terbutaline |
|  | Injection | Adrenaline 1 mg in 1 ml |
|  | Injection | Ephedrine25mg/5ml |
|  | Tablet | Ephedrine15mg |
|  | Inhaler | Ipratropipium Bromide |
|  | Tablet | Enalapril meleate 5mg/10mg |
|  | Tablet  | Losartan potassium25mg/50mg |
|  | Tablet | Valsartan 40mg/80mg/160mg |
|  | Tablet  | Aminophyline 100mg |
|  | Tablet  | Aminophyline Retered |
|  | Injection | Aminophyline 125 mg/5ml |
|  | Tablet  | Theophyline SR 300mg |
|  | Syrup | Theophyline |
|  | Inhaler | Salbutamol + Ipratropium bromide |
|  | Inhaler | Sodium Chromoglycate |
|  | Inhaler | Beclomethasone Dipropionate |
|  | Inhaler  | Budesonide |
|  | Inhaler | Salmetrol +Fluticasone |
|  | Syrup  | Dextromethorphan |
|  | Tablet | Ketotifen 1mg |
|  | Syrup | Ketotifen 1mg/5ml |
|  | Tablet | Montelukast 5mg/10mg |
|  | Syrup | Dextromethorphan+Pseudoephidrine |
|  | Injection | Naloxon .4mg/1ml |
|  | Injection | Promethazine HCL |
|  | Tablet | Promethazine HCL 10mg |
|  | Syrup | Promethazine HCL 5mg/5ml |
|  | Solution | Ipratropium bromide (Nebulizer Solution) |
|  | Inhaler | Ipratropium Bromide 20 mcg + Salbutamol 100 mcg/Metered Inhalation Aerosol Inhalation |
|  | Inhaler | Salbutamol 100 mcg/Metered Inhalation Aerosol Inhalation |
|  | Inhaler | Salbutamol(2mg/5ml) |

**List of Medicine for Injury Prevention, EPR & Disaster**

|  |  |  |
| --- | --- | --- |
| **SL No** | **Preparation** | **Name of Items** |
|  | Injection | Cholera Saline -1000ml /500 ml |
|  | Injection | Dextrose in Aqua -1000ml /500 ml |
|  | Injection | Hartman’s Saline -1000ml /500 ml |
|  | Injection | Normal Saline -1000ml /500 ml |
|  | Chemical | Bleaching Powder 45kg/ 50 Kg |
|  | Solution | Chlrohexidine gluconate cetramide savlon  |
|  | Tablet | Ciprofloxacin -250mg |
|  | Tablet | Ciprofloxacin -500mg |
|  | Tablet | Co-trimoxazole -960mg |
|  | Tablet | Erythromycin -500 mg  |
|  | Tablet | Water Purifying Tablet (WPT) |
|  | Capsule | Cephradine -500 mg  |
|  | Capsule | Flucloxacillin-250mg  |
|  | Syrup | Co-trimoxazole-100ml  |
|  | Syrup | Erythromycin-100ml |
|  | Syringe | Disposable Syringe (5ml/10ml) |
|  | Capsule | Amoxycillin-250mg |
|  | Capsule | Tetracycillin-250mg |
|  | Capsule | Cephradine-500mg  |
|  | Capsule | Doxycycline-100mg |
|  | Saline | ORS (Sodium chloride BP-1.30g. Potassium chloride BP-0.75g. Sodium citrate BP-1.45g. Anhydrous Glucose BP-6.75g. Contents of one sachet is dissolved in) |
|  | Tablet | Antacid - 650mg |
|  | Tablet | Chlorpheniramine Maletet -4mg |
|  | Tablet | Ciprofloxacin-500mg |
|  | Tablet | Diclofenac -50mg |
|  | Tablet | Metronidazole -400mg  |
|  | Tablet | Paracetamole-500mg |
|  | Tablet | Nalidixic Acid-500mg |
|  | Tablet | Ciprofloxacin -500mg  |
|  | Tablet | Erythromycin -250 mg  |
|  | Injection | Anti Snake Venom |
|  | Drops | Chloramphenicol 0.5%  |
|  | Drops | Ciprofloxacin 0.3% Eye and Ear Drops |

**List of Medicines for CVD**

|  |  |  |
| --- | --- | --- |
| **SL No** | **Preparation** | **Name of Items** |
|  | Tablet | Amiodarone200mg |
|  | Capsule | Disopyramide 100mg |
|  | Injection | Lignocaine hydrochloride 2% solution in 50ml bottle |
|  | Tablet | Sloatol Hydrochloride 80mg |
|  | Tablet | Digoxin.25mg |
|  | Tablet | Glyceryltrinitrate.5mg |
|  | Injection | Glyceryltrinitrate 1mg/ml |
|  | Spray | Glyceryltrinitrate400mcg/metered dose |
|  | Tablet | Isosorbide Dinatrate10mg |
|  | Tablet | Isosorbide Mononitrate20mg |
|  | Tablet | Amlodipine Besylate 5mg |
|  | Tablet | Amlodipine 5 mg + Atenolol 50 mg Tablet |
|  | Tablet | Diltiazem Hydrchloride 30mg, 60 mg |
|  | Tablet | Nifidipine 10mg |
|  | Tablet | Verapamil 80mg |
|  | Tablet | Nicorandil 5mg,10mg |
|  | Tablet | Almitrine 30mg +Raubasin 10mg |
|  | Tablet | Bencyclane100mg |
|  | Tablet | Vinpocetine 5mg |
|  | Tablet | Oxypentyphiline 400mg |
|  | Tablet | Levocarnitine 330mg |
|  | Injection | Dobutamine HCL250mg/20ml |
|  | Injection | Dopamine200mg/5ml |
|  | Injection |  Heparin 5000 I.U/ml |
|  | Injection | Enoxaparin 4000/6000 I.U/ampoule |
|  | Tablet | Warfarin 5mg |
|  | Tablet | Aspirin 75mg |
|  | Tablet | Clopidogrel 75mg |
|  | Tablet | Aspirin 75mg + Clopidogrel 75mg |
|  | Injection | Streptokinase 1.5 million Unit |
|  | Injection | Adronochrome Monosemicarbazone 5mg/1ml |
|  | Tablet | Adronochrome Monosemicarbazone 2.5mg |
|  | Injection | Aminocaproic Acid |
|  | Injection | Phytomenadionex 2mg/.2ml |
|  | Capsule | Tanexamic Acid 250mg/500mg |
|  | Injection | Tanexamic Acid 500mg/5ml |
|  | Capsule | Fenofibrate 200mg |
|  | Tablet | Atrovastatine 10mg, 20mg |
|  | Tablet | Fluvastatine 20mg,40mg,80mg |
|  | Tablet | Azithromycin 500 mg |
|  | Capsule | Cefixime 200 mg |
|  | Tablet | Ciprofloxacin(500mg) |
|  | Tablet | Erythromycin(500mg) |
|  | Capsule | Flucloxacillin 500 mg |
|  | Tablet | Ketotifen 1 mg  |
|  | Tablet | Levofloxacin 500 mg |
|  | Tablet | Montelukast 10 mg  |
|  | Tablet | Salbutamol(4mg) |
|  | Tablet | Tetanus Toxoid |
|  | Tablet | Theophylline 200 mg |

**List of MSR**

|  |  |
| --- | --- |
| **SL No** | **Name of Items** |
|  | Stethoscope |
|  | Crutch |
|  | Pedometer |
|  | Measuring Tape |
|  | Arsenic Test Refill Pack |
|  | Plaster of Paris (6’’) |
|  | Glucometer |
|  | Glucometer Strip with Needle (Lencet) (1 box Contains 25 strips) |
|  | Surgical Gauge |
|  | Surgical Bandage |
|  | IV Cannula |
|  | Infusion Set |
|  | Lipid profile Measurement Kit |