*Background Paper for the Second Perspective Plan of Bangladesh (2021-2041)*

*On*

Health and Population Management for Sustained Human Development

Prepared for

**General Economic Division (GED)**

**Planning Commission**

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**ACRONYMS**

7FYP Seventh Five Year Plan

ANC Antenatal Care

BBS Bangladesh Bureau of Statistics

BMI Body Mass Index

CEmOC Comprehensive Emergency Obstetric Care

CPR Contraceptive Prevalence Rate

DGFP Directorate General of Family Planning

DGHS Directorate General of Health Services

ESD Essential Service Delivery

ESP Essential Service Packages

GDP Gross Domestic Product

HIES Household Income and Expenditure Survey

HNP Health Nutrition and Population

HPNSDP Health Population & Nutrition Sector Development Plan

IPCC Intergovernmental Panel on Climate Change

LDC Less Developed Countries

LFP Labour Force Participation

MCH-FP Maternal, Child Health and Family Planning

MDGs Millennium Development Goals

MIS Management Information System

MOHFW Ministry of Health and Family Welfare

NCD Non-communicable Diseases

NIPORT National Institute of Population Research and Training

PHC Primary Health Care

PNC Postnatal Care

SACMO Sub-assistant Community Medical Officer

SDGs Sustainable Development Goals

TFR Total Fertility Rate

UHFWC Union Health and Family Welfare Centers

WASH Water Sanitation and Hygiene

WDP Women’s Development Policy, 2011

WHO World Health Organization

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HEALTH AND POPULATION MANAGEMENT FOR SUSTAINED HUMAN DEVELOPMENT

# 1.0 Background

Quality health care and effective population management are very essential for ensuring sustained human development because of their huge positive impact on the overall wellbeing of human in general and on their labour productivity and rapid economic growth in particular. For this reason, the World Health Organization recognized human health as one of the fundamental human rights and defined ‘health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity’ (WHO, 1946). Consistently in 1992, the United Nations endures that ‘human beings are at the center of concerns for sustainable development and they are entitled to a healthy and productive life in harmony with nature’ (UN 1992). Both the Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) uphold the importance of universal health care for sustained health and human development. Good human health plays pivotal roles in the attainment of prosperous and happy livelihood by affecting human capitals such as educational attainment and income-generating capacity.

The Government of Bangladesh has placed utmost focus to integrate population management issues with healthcare system to ensure healthcare services for all. Initiatives have been taken to ensure availability, accessibility, affordability, and acceptability (4-As) of the health care system in Bangladesh. Consequently, Bangladesh has made remarkable progress in managing healthcare needs of its large population despite several resource constraints. However, there are several areas where greater attention is needed to ensure sustained human development in Bangladesh such as further improvement of maternal and child health, ensuring nutrition of mother and children, addressing youth and adolescent needs, and managing aging population. In this context, it is worthwhile to develop a long-term plan for ensuring quality health care and effective management of population along with identifying their challenges and generating implementation strategies.

# 2.0 Objectives of the Study

Bangladesh has made outstanding progress in socioeconomic development particularly in the last decade. For example, Bangladesh’s gross domestic product (GDP) growth reached 7.24 percent in the fiscal year of 2016-2017 beating all the previous records in the history of the country’s economy. Meanwhile per capita income has increased to $1602 (BBS, 2017). Thus Bangladesh will graduate out of LDC status by 2021, aspires to reach upper middle income country status by 2030, and expects to become a developed economy in the 2040s decade, through a process of rapid inclusive growth leading to elimination of poverty. In this context, the broader objective of this study is to outline future approach to health and population management for sustained human development. More specifically, this study aims to focus on the following sectors to describe currents status, identify challenges, set targets, and generate strategies for the second Perspective Plan of Bangladesh.

* Health and family welfare: Maternal, child and adolescent health
* Essential Health Services Delivery/ESP
* Health care delivery system
* Issues in nutrition
* Gender issues in health and nutrition
* Human resources for health
* Health sector management and administration
* Planning for population management
* Climate change, displacement and health

# 3.0 Methodology

In this study, mostly secondary data were used to describe current situation of health status and population management, and to identify challenges and to develop strategies for achieving the targets in areas of health and population management for sustained human development. Secondary data were collected from scholarly journals, census reports, surveys reports, and annual reports of the Government and international organizations. Updated projection of Bangladesh population was provided for long-term planning in areas of health and human resource development. Greater emphasis was given on critical review of policy documents of the Government of Bangladesh such as 7th Five Year Plan, Vision 2021, Health Policy, Education Policy, Population Policy, Climate Change Strategy Action Plan and MDGs Progress Reports. In addition, consultations were carried out with population experts, policy makers and other stakeholders who had long experience of working in this sector to generate appropriate strategies for health and population management.

# 4.0 Role of Health and Population Management in Sustained Human Development

Health status has wide range of effects on human development and economic growth. Ensuring better health begins with ensuring nutrition for children in their early stage of life due to its greater impact on productivity during working ages and well-being in later life. For example, Hoddinott and colleagues (2013) revealed that prevention of malnutrition in early childhood led to 20.0 percent higher hourly earnings and 48 percent higher wage rates, and 33.0% more likely to escape poverty. In connection with this Horton and Steckel (2011) reported that Asia and Africa lose 11.0 percent of GNP every year owing to poor nutrition. Thus, it is well established in the literature that quality health care leads to human development through which sustained human development can be ensured. There are four prerequisite of quality health care: availability, accessibility, affordability and acceptability (4-As).

Population management is an important dimension of ensuring sustained human development. It is the process of managing population through ensuring their basic human rights in one hand and ensuring quality services for their overall wellbeing on the other. In the context of Bangladesh, effective population management indicates control of population growth considering land and resources, and providing efficient services in areas of education, health, food and nutrition, labour market, income distribution and human resource development. Thus ensuring effective management of population will have substantial implications on establishing peace and security, reducing crime and conflict, good governance and sustainable development.

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# 5.0 Review of Policy Documents on Health and Population Management

The Government of Bangladesh has given topmost priority to ensure complete physical, social and mental well being of people recognizing that every citizen has the right to adequate health care. Hence, the vision of the *2011 National Health Policy* of Bangladesh was to ensure equality health care services for all while emphasizing more on marginal and vulnerable populations. The major objectives of the National Health Policy of Bangladesh were to make necessary basic medical utilities reach people of all strata and develop the health and nutrition status; to ensure optimum quality, acceptance and availability of primary health care, and governmental medical services at the Upazila and Union levels; to undertake programmes for reducing the rates of child and maternal mortality; and to explore ways to make the family planning programme more acceptable, easily available and effective among the extremely poor and low-income communities.

Health and population management also received utmost priority in the *2012 Population Policy* of Bangladesh. The Population Policy of Bangladesh sets the vision to develop a healthier, happier, and wealthier Bangladesh through planned development and control of national population. Thus the objectives of the population policy were to reduce the total fertility rate (TFR) to 2.1 (replacement level), ensure the availability of family planning methods to eligible couples by providing easy access to reproductive health services including family planning methods; reduce maternal and infant mortality, and strengthen activities to eliminate gender discrimination in family planning and maternal and child health care programs; and undertake plans for developing the population into human resources.

Consistently, the goal of the *National Nutrition Policy 2015* of Bangladesh was to improve the status of the people especially disadvantaged groups including mothers, adolescent girls, and children to prevent and control malnutrition, and to accelerate national development through raising standard of living. To achieve this goal, five objectives were set in the National Nutrition Policy of Bangladesh: (1) improve the nutritional status of all citizens including children, adolescent girls, pregnant women and lactating mothers, (2) ensure availability of adequate, diversified, and quality safe food and promote healthy feeding practices, (3) strengthen nutrition specific interventions, (4) strengthen nutrition sensitive interventions, and (5) strengthen multisectoral programmes and increase coordination among sectors to improve nutrition.

Considering the importance of health, population and nutrition, the *Seventh Five Year Plan* (2016-2020) of Bangladesh was designed to ensure access and utilization of health population and nutrition (HNP) services for every citizen of the country, with particular emphasis on elderly, women, children, poor, disadvantaged and those living in difficult areas; to reduce total fertility rate; to ensure adolescent and reproductive health care; to improve nutritional status of children and women; to meet challenges of non-communicable diseases, health hazards due to climate change and emergency response to catastrophe; provide in-service training and better management of human resources; and to improve the quality of hospitals and maternity services.

In the first *Perspective Plan of Bangladesh (2010-2021),* the Government of Bangladesh focused on three broader areas to promote human development: (i) ensuring education for all; (ii) promoting and sustaining health and nutrition; and (iii) planning population (both containment and management) and converting them into human resources. In the light of the Government’s Vision 2021, the country aims to remove deficiency in food and ensure nutritional requirement for 80% of the population, ensure a minimum daily intake of 2,122 kilo calories of food, eliminate contagious diseases and ensure primary health care and sanitation, increase average life expectancy to 70 years, reduce maternal and child mortality, and ensure significant improvement in the quality of education.

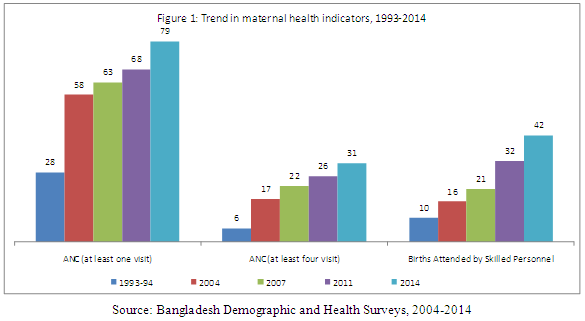
Bangladesh has been following a Sector-Wide Approach (SWAp) in the HNP sector since 1998. The first SWAp – the Health and Population Sector Programme (HPSP) - was implemented during 1998-2003. It was followed by a second SWAp, the Health, Nutrition and Population Sector Programme (HNPSP), that began in 2003 and concluded in June 2011. The third SWAp titled the *Health, Population and Nutrition Sector Development Programme (HPNSDP) (2011-2016),* rightly sets out several drivers for achieving the goal of improved health status for the poor, women and marginalized. These include scaling up services for poverty eradication, reducing child mortality, improving maternal health, and combating malaria, HIV and other diseases; addressing population growth through fully integrated family planning services, and mainstreaming nutrition in all service delivery points through the channels of DGHS and DGFP; expanding access to health services for priority communicable and non-communicable diseases; revitalizing the Community Clinic based services as part of functional Upazila Health System (UHS); and improving health equity for poor and geographically marginalized population.

The subsequent sections describe the extent to which these goals and targets have been achieved so far, identify the challenges, set targets and generate strategies for achieving the targets of the second perspective plan of Bangladesh (2021-2041).

# 6.0 Health and Family Welfare: The Broad Picture

## 6.1 Maternal healthcare: trends and patterns

Bangladesh has made substantial progress over the last decade in improving maternal and child health status. For example, the percentage of women having ANC care visit increased from 28% in 1993-94 to 79% in 2014. The proportion of women receiving at least four ANC visit also increased from merely 6.0% in 1993-94 to 31% in 2014 (Figure 1). However, it is important to note that only 31% women had received four or more than four ANC visits during their pregnancy while the target of HPNSDP was to achieve it for 50% women by 2016 (MOHFW 2011). The highest proportion of women received ANC care from private sector providers (52%) followed by public sector providers (36%), home-based provider (16%) and NGO sector providers (11%) (NIPORT, Mitra and Associates, and ICF International, 2016).



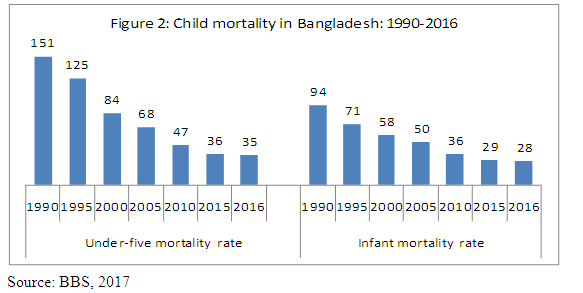
Care during delivery is another important indicator of maternal health. In 2014, around 37% births were delivered at health facility which is almost three times higher than that of 2004. Overall, 22% of the facility-based delivery were took place in a private facility followed by 13% in a public facility and 2% in an NGO facility. Among facility-based delivery, the prevalence of C-section delivery has increased from 4% in 2004 to 23% in 2014 mainly among urban women in the highest wealth quintile with secondary or higher level education (NIPORT, Mitra and Associates, and ICF International, 2016). The proportion of births attended by skilled personnel has increased from 10% in 1993-94 to 42% in 2014 (Figure 1).

Utilization of postnatal care (PNC) is vital for safe motherhood and neonatal health. In 2014, 39% of the mothers and 36% of the neonates had postnatal checkup within 42 days of delivery indicating that Bangladesh has already achieved the target of HPNSDP 35% by 2016. In addition, the proportion of mothers who received PNC care within two days of delivery has increased from 16% in 2004 to 36.0% in 2014. The proportion of newborn infants receiving checkup from medically trained provider within two days of delivery has also increased from 13.0% in 2004 to 32.0% in 2014 (NIPORT, Mitra and Associates, and ICF International, 2016). Maternal mortality ratio in Bangladesh has declined from 574 (per 100,000 live births) in 1990 to 181 in 2015, and 178 in 2016 (BBS, 2017). The MDG target of MMR was 143 (per 100,000 live births) by 2015 indicating that Bangladesh is lagging behind in this case.

# 6.2 Status of Child Health

***Trends and patterns of infant and under-five mortality***

Bangladesh has made significant progress in reducing child mortality and coverage of childhood illness treatment. Under-five mortality rate of children (per 1000 live births) has declined from 151 in 1990 to 35 in 2016. The MDG target for under-five mortality was 48 by 2015. Infant mortality rate (below one year) per 1000 live births has also decline from 94 in 1990 to 28 in 2016 (Figure 2). In the case of infant mortality, MDG target was 31 per 1000 live births by 2015. Thus Bangladesh has successfully achieved the MDG targets of under-five mortality and infant mortality. In addition, neo-natal mortality rate (deaths under 4 weeks of life) has declined from 21 (per 1000 live births) in 2012 to 19 in 2016; and post-neonatal mortality rate (deaths between 4 weeks and under one year of life) has declined from 12 (per 1000 live births) in 2012 to 9 in 2016.



The rate of vaccination coverage has increased from 68% in 2004 to 78% between in 2014. The coverage of vitamin A supplementation for children age 6-59 months has increased from 60% in 2011 to 62% in 2014. The prevalence of diarrhea was around 6% among children age 6-23 months in 2014. The coverage of treatment for diarrhea with ORT/ORS is around 84% in 2014. However, diarrhea treatment with ORT and zinc has increased from 20% to 38% between 2011 and 2014. The prevalence of Acute Respiratory Infection (ARI) among children under age five was 5% in 2014. The prevalence of receiving treatment for children with ARI from a medically trained provider has increased slightly, from 35% to 42% from 2011 to 2014.

## 6.3 Status of adolescent health

There were 30.7 million adolescents in Bangladesh in 2011 Census. The total number of adolescents will increase to 33.7 million by 2021, and thereafter, will decline to 30.2 million by 2031 and 28.9 million by 2041. Female adolescents comprised of about half of the total adolescent population (BBS, 2015). Adolescents in Bangladesh face a number of issues, including high rates of early marriage, high fertility rates, limited negotiation skills, and insufficient awareness of and information about reproductive health (Ainul et al. 2017; Barkat and Majid, 2003). In 2014, the median age of marriage for women was 15.5 years compared to 26 years for men. More importantly, the rate of child marriage in Bangladesh was 59% in 2014---one of the highest in the world (NIPORT, Mitra and Associates, and ICF International 2016). Thus adolescent girls enter married life with limited ability to exercise their reproductive rights, including decisions related to family planning, childbearing and maternal and child health services, and usually begin childbearing soon after marriage (Ainul et al. 2017; Khan, Townsend, and D’Costa, 2002).

## 6.4 Status of Morbidity

The top ten prevalence of morbidity in Bangladesh (per 1000 population) include fever (52.5), arthritis (14), peptic-ulcer (13.4), high blood pressure (12.4), dysentery (8.3), diabetes (7.7), diarrhea (6.6), acute respiratory infection (4.9), skin disease (4.3) and conjunctivitis (4.2). However, the prevalence of co-morbidity is 52 per 1000 population and 6 in 10 people with co-morbidity lives in urban areas (BBS 2013). Among the morbid people, 72% received treatment. Among morbid people, 70% depends on private health facilities, followed by government health facilities and NGO health facilities (BBS, 2013).

## 6.5 Utilization of healthcare services

The utilization of healthcare services is determined by a wide range of factors including demographic (age, sex and residence), socioeconomic (education and wealth) and cultural (religion and ethnic) factors. There are clear evidences in the context of Bangladesh that utilization of maternal and child healthcare services vary by age, gender, residence, education, economic status, place of residence and region. Utilization of healthcare services and level of nutrition is further affected by natural disasters such as floods and cyclones.

Recent data from the DGHS (2016) showed that health care seeking from the public facilities has been continuing to rise over the past few years, indicating improvements in the management of patients and their increasing satisfaction. In 2015, a total of 178,697,958 patient-visits took place at the outpatient departments (OPD) of 16,167 public health facilities. Most patient-attendance (89%) occurred in the primary-level facilities, and the community clinics alone handled more than 100 million visits. Only 5% of the OPD visits took place at the tertiary-level-facilities. About 60.0% of the attendees at the outpatient departments of all facilities were female. At the lower-level facilities, there is predominance of female attendees but, as the level goes up, the female predominance reduces in a linear fashion. At the medical college hospitals, the male-female ratio is almost identical (49% and 51%). However, in the super specialized institute hospitals, the scenario is reversed, having a male predominance. This pattern of utilization of health care facilities clearly revealed that socioeconomic factors play an important role in determining the utilization of health care services. More specifically, women, lower educated people, poor people, and marginal and vulnerable people are less likely to utilize health care services from higher level institute-hospitals (MIS-DGHS, 2016).

# 7.0 Essential Health Services Delivery/ESP

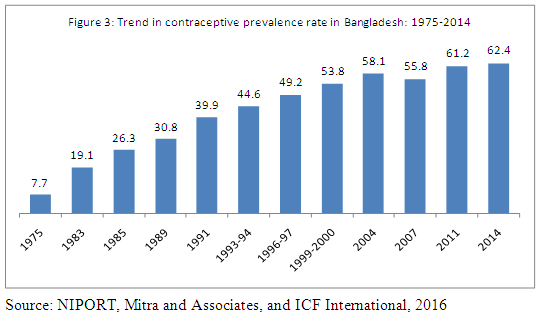
## 7.1 Importance and Composition of ESP/ESD

The essential health package (ESP) is the foundation program of Bangladesh to ensure access to the universal health coverage as well as the cornerstone of the primary health care (PHC) strategy. The composition of ESP covers five core, one complementary and three support services. The five core services of ESP are: maternal, neonatal, child and adolescent health care; family planning; nutrition; communicable and non-communicable diseases. The issue of non-communicable diseases is included in the newest package of ESP in Bangladesh, acknowledging the demographic and epidemiological transition. The essential service package also deal with the management of other common conditions such as skin, geriatric and emergency care. Social and behavioral change communication activities are integrated in each of the services. The three non-clinical support services of ESP include laboratory, radiology and other image tools and pharmacy.

The ESP services are provided mainly from nine deliver sites, from community to district hospital including urban facilities, which are: domiciliary; satellite clinics and outreach; community clinics (CC); union-level facilities (combination of union health and family welfare centers (UHFWC); union health sub-centers (USC); Upazila health complexes (UHC); district hospitals (DH), maternal and child welfare center (MCWC); comprehensive reproductive health care center (CRHCC) and primary health care center (PHCC). In addition, higher level and specialized public hospitals, as well as NGO facilities are providing some of the ESP components.

## 7.2 Current status of Essential Health Services

Concerning family planning, Bangladesh has made remarkable progress in increasing contraceptive prevalence rate (CPR) from only 7.7 percent in 1975 to 62.4 percent in 2014 (Figure 3). However, in recent years the increase in CPR has been slower than expected. In 2014, the use of any modern method was 54.1 percent. In 2014, CPR in rural area was lower than that of urban area (61.1% and 65.9% respectively). Rajshahi and Rangpur had higher CPRs (about 70%) and Sylhet and Chittagong had lower CPRs compared to other divisions (47.8% and 55.0% respectively). Unmet need for family planning (i.e., those who want to use contraceptive but cannot use for any reason) was 12.0% in 2014. Contraception discontinuation rate was 48% in 1993-94 which has declined to 30.0% in 2014 (NIPORT, Mitra and Associates, and ICF International, 2016).



In 2015, vaccination coverage among less than 12 months old children was 82.5%. Tetanus toxoid coverage among women of childbearing age was 96.0% for TT1, 94.0% for TT2, 83.6% for TT3, 66.7% for TT4, 46.1% for TT5. Among communicable diseases, there were 3.0 positive cases of malaria per 1000 population in endemic areas, and death from malaria per 10,000 populations in 2015 in endemic areas was 0.0068. Incidence rate of Tuberculosis (all forms) per 100,000 population was 227 (in 2014, NTP 2016). In 2015, a total of 2,560,598 diarrhea cases and 24 related deaths were reported showing 0.001% of death rate from diarrhea in Bangladesh. Chikungunya fever is emerging alarmingly in the country in recent years. It is estimated that less than 0.1% of the total population in Bangladesh is infected by HIV. A large number of populations are also in the risk of non-communicable diseases such as cardiovascular diseases, stroke, cancer, diabetes, COPD, and arsenicosis.

# 8.0 Healthcare facilities and health delivery system

## 8.1 Healthcare Delivery System

Bangladesh has an extensive network of public, private and NGO facilities for providing primary healthcare services. There are 16,968 public health facilities at the Upazila level and below of which 3,134 primary healthcare facilities, including Upazila health complex, hospital outside health complexes, and union outpatient centers, functions from Upazila to union levels and 13,336 community clinics at ward level (MIS-DGHS 2016). These public health outlets provide free medical services to people at the community level. The community clinics (ideally, one community clinic for every 6000 population) are critically important to bring health facilities closer the doorstep of the population. In the PHC system, the CC is the lowest tier, is a unique example of public-private partnership in health the system, to make health services available for rural and urban hard to reach people (MOHFW, 2016).

At district level, there are 53 district hospitals, 9 general hospitals, 3 leprosy hospitals, 3 communicable disease hospitals, 13 chest disease/TB hospitals, 43 chest/TB clinics and 23 school health clinics. Additionally, 60 MCWCs operates at district levels. At the national level, there are 17 medical college hospitals and eight super-specialized teaching hospitals (MIS-DGHS, 2012). On the other hand, there are 2983 registered private hospitals and clinics in the country and only a few of these have free beds for the poor and disadvantaged (MIS-DGHS, 2013). Besides the registered ones, there are a substantial number of clinics and hospitals which are not registered with the regulatory bodies, and do not fulfill the minimum standards of operation (Ahmed et al., 2015).

## 8.2 Water, Sanitation and Hygiene Situation in Bangladesh

Improved water, sanitation and hygienic practices can significantly reduce the burden of different diseases. Regarding water, 98% of the Bangladeshi population has access to improved water supply- with the vast majority (91%) through other than non-piped sources of improved water (MICS, 2015). Regarding sanitation, 97% populations have access to the latrine facilities (irrespective of their quality) and only 3% population practiced open defecation (MICS 2015).

Concerning hygiene, post-defection hand wash facilities near toilet are available for two-third of the households and 40% of the households have post-defection hand wash facilities with water and soap Menstrual hygiene practices remained a challenge, especially in schools. Old cloth is the main menstruation management material for 82-86% menstruating girls and women, while only 12% of school girls, 23% of girls at home and 27% of women washes their menstruation cloth properly. Additionally, 40% of schools girls reported that they miss school during menstruation for a median of 3 days a month (ICDDR’B et al. 2014).

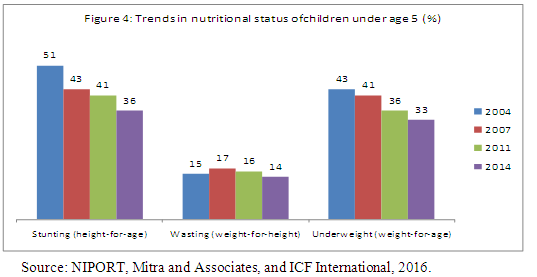
# 9.0 Issues in Nutrition

Intake of adequate nutrition among children prevents lifelong risk of lowering productivity and risk of child mortality. Ensuring balanced nutrition among mothers and children eventually promotes sustained human development through increased productivity and life-long reduced risk of poor health status.

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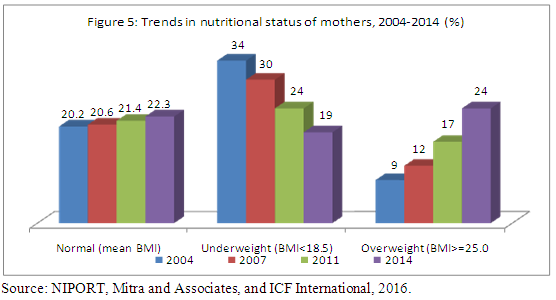
## 9.1 Nutritional status of children

Reduction of child malnutrition is an important indicator in achieving the targets of sustainable development goals. The prevalence of stunting (height-for-age) among children under age 5 has declined substantially in Bangladesh from 51% in 2004 to 36% in 2014. Similarly, the prevalence of underweight (weight-for-age) among children under age 5 has declined considerably from 43.0 percent in 2004 to 33.0 percent in 2014 (Figure 4). Thus Bangladesh has achieved the MDG target of 33.0 percent prevalence rate of underweight by 2015. The findings from the 2012-2013 Multiple Indicator Cluster Survey also confirmed achieving the target of underweight prevalence rate where the underweight rate for under-five years of children was found to be 31.9. However, declining trend in the prevalence of wasting among children under age 5 has been slower than expected (15% in 2004 to 14% in 2014).



## 9.2 Nutritional Status of mothers

There are multiple effects of underweight (low BMI) among mothers such as suffering more from illness, having impaired work capacity, having lower income and suboptimal childcare. In Bangladesh, the prevalence of underweight among mothers (BMI<18.5) have declined considerably from 34.0 percent in 2004 to 19.0 percent in 2014. However, during this period the prevalence of overweight has increased among mothers from 9.0 percent in 2004 to 24.0 percent in 2014. Overall, about one-fourth mothers had normal BMI during the period of 2004 to 2014 (Figure 5). Nevertheless, the rate of Vitamin A supplement among mothers had increased more than three times from 2004 to 2014 (15.0% to 46.0%).



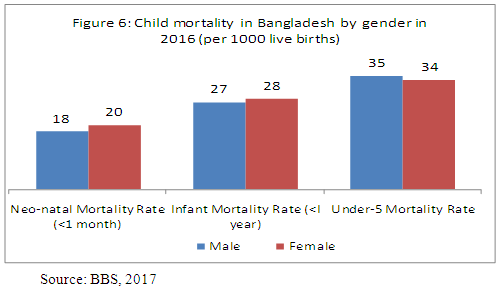
## 9.3 Prevalence of micronutrient deficiencies by age

Micro-nutrients are essential for the proper functioning of every system in the body and are vital for good health. Findings from the National Micronutrient Survey 2011-2012 showed that one-fifth of the children in preschool and school age had Vitamin A deficiency, and 5.4% non-pregnant non-lactating mothers (NPNL) also had the Vitamin A deficiency. About one-third children in preschool age and one-fifth children in school age had Anaemia. The prevalence of anaemia among NPNL women was 26.0%. There were also evidence of iron deficiency among children and NPNL women though to a lesser extent. The deficiency of iodine among children and NPNL women were more than 40.0 percent in both cases. Similarly Zinc deficiency was also highly prevalent among preschool age children (44.6%) and NPNL women (57.3%). Among NPNL women there were also evidence of Folate deficiency (9.1%) and B12 deficiency (ICDDR’B et al., 2013). Breastfeed among children has increased from 42.0% in 2004 to 55.0% in 2014 (NIPORT, Mitra and Associates, and ICF International, 2016).

# 10.0 Gender Issues in Health and Nutrition

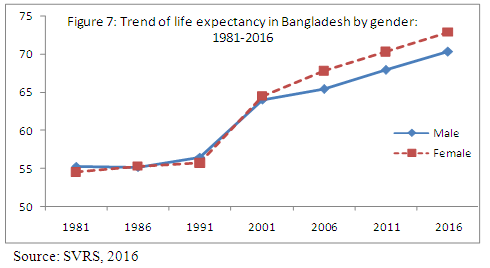
## 10.1 Status of child mortality by gender

Bangladesh has done exceptionally well in reducing gender disparity in child mortality rates. Neonatal mortality rate (<1 month) among male children was 18 per 1000 live births which was 20 deaths per 1000 live births in the case of female children. However, there was not much difference in the case of infant mortality rate (<1 year) between male children and female children (27 and 28 deaths per 1000 live births respectively). In addition, under-five mortality rate is even lower for female children than male children (Figure 6). Though there is no substantial difference in child mortality rates by gender, key point here is that the death rates in both cases still need to reduce to a large extent.



## 10.2 Status of life expectancy by gender

Bangladesh has made considerable progress in increasing life expectancy for females compared to males. In 1981 females had lower life expectancy in Bangladesh compared to male life expectancy. In 2016, female life expectancy has increased to 72.9 years from that of 64.5 years in 2001. During the same period, male life expectancy has increased to 70.3 years from 64.0 years in 2001 (Figure 7). Thus, overall, females have higher life expectancy than males in Bangladesh. From a policy perspective, the key point here is to achieve sustained increase in healthy life expectancy both for males and females.



## 10.3 Women’s participation in family decision making process

Women’s participation in family decision making process is an important component of women empowerment. Findings from the 2014 BDHS show that both husband and wife jointly take decisions in using contraception (75.3%), wife’s health care (48.2%), and spending wife’s earning (51.3%). However, women’s role in decision making for her own health care is limited (15.0%) compared to their male counterparts (30.8%) suggesting that increased role of women in family decision making process should be ensured.

# 11.0 Human Resources for Health

Adequate skilled human resources are essential for delivering quality health care. For this reason, adequate number of educational institutions and training facilities are needed to produce adequate human resources for health. Thereafter, ensuring proper distribution of available human resources is pivotal to ensure equal access to health care for all.

## 11.1 Human resource building facilities for health

There are 23 Government institutions and 10 private institutions offering post graduate medical courses with a capability of 2237 seats. In addition, 36 Government institutions and 68 private institutions are offering MBBS degree having a total of 13,769 seats. There are 34 government and private institutions offering undergraduate dental degree to 1917 students. There are 131 nursing institutions (Government: 57, and Private: 74) in Bangladesh as of June 2016 with a seat capacity of 6,680. There are 12 junior midwifery institutions with a seat capacity of 320. As of June 2016, 52 institutions (both Government and Private) are producing community based skilled birth attendants, 189 Medical Assistant Training Schools (MATS) (Government: 8, Private: 181) are 12610 skilled human resources. In addition, there are 133 institutions of health technology (Government: 11 and Private: 122) (MIS-DGHS, 2016).

## 11.2 Distribution of available human resources

There are 127,841 sanctioned posts under the DGHS of which physicians comprised of 18.8%; class II 16.7%, class III 41.3% and class IV employees comprise the rest 22.7%. Of the available 106,104 health personnel 21.1% are doctors (Class I), 16.8% are of class II, 41.4% are of class III and the remaining 20.6% are class IV. The lass I non-doctors comprise 0.42% of the sanctioned posts and 0.22% of the available staff. As of June 2016, 21,717 sanctioned posts remained vacant which constituted 17% of the total sanctioned posts. Vacancy rate was 6.9% for doctors (1,654 posts), 56.5% (306 posts) for class I non-doctors, 16.4% (3.486 posts) for class II staff, 17.1% for (9,062 posts) for class III staff, and 24.9% for class IV staff (DGHS, 2016). The above mentioned distribution of human resources produces number of registered physician per 10,000 populations 4.90, number of registered nurses per 10,000 population 2.90, number of medical technologists working under GFHS per 10,000 populations 0.37, and number of community and domiciliary health workers working under MOHFW per 10,000 populations 4.04 (MIS-DGHS, 2016).

Moreover, there is a bulk portion of healthcare providers in the informal sector comprising semi-qualified allopathic providers (e.g., community health workers, medical assistants and trained midwives), unqualified allopathic providers (e.g., pharmacists, quack doctors), traditional healers (ayurvedic, unani and homeopathic medicine practitioners) and faith healers. They are the major healthcare providers for large number of rural people, especially in remote and hard-to-reach areas, though they are not part of the mainstream health system.

## 11.3 Management Information Systems (MIS)

Bangladesh has made remarkable progress in developing and deploying a country-wide health information system (HIS) which includes a robust routine health information system (RHIS). Several of its HIS and eHealth initiatives, coming mainly from the Government, are being appreciated and recognized both at home and abroad. International recognitions in the form of prestigious awards received during the past few years hallmark Bangladesh’s glorious efforts for digitalization of the health.

As part of the digitalization of the health, Bangladesh has organized the Inter-Country Conference on Measurement and Accountability for Results in health (MA4Health) in April 2016. Bangladesh has also taken NCD interventions through the Commission on Information and Accountability for Women’s and Children’s Health (COIA). With an aim to ensure quality of data, completeness of reporting, and timeliness of data, the COIA Secretariat conducts regular monitoring visits to the community clinics and provides hands-on training to the service providers and respective Upazila statisticians. A platform of Shared Health Records (SHRs) has been developed as the initial step toward introducing universal electronic health records in the country.

A Memorandum of Understanding (MoU) was signed on 12 July 2015 between the Ministry of Health and Family Welfare and the Access to Information (A2I) project of the Prime Minister’s Office to expand effective collaboration between the two parties with respect to promotion of digital health information in the country. The MIS-DGHS has recently created user friendly dashboards for advocacy programs to visualize and increase in the use of geospatial data. MIS-DGHS has also initiated eMIS solutions for the use by rural community health workers in the public sector. In addition to mobile phone based health service and advanced telemedicine, Skype-based teleconsultation is also pursued.

# 12.0 Health Sector Management/Administration

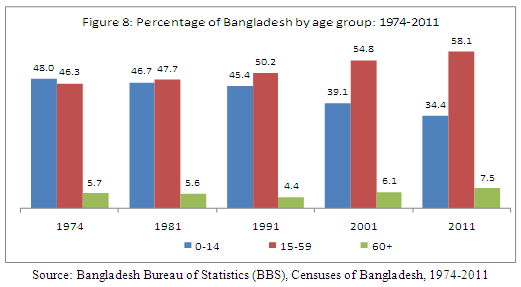
Bangladesh has made remarkable progress in health sector surpassing its neighbours in raising life expectancy, and reducing fertility and mortality of mothers and infants. The health system of Bangladesh is organized by multiple actors performing diverse roles and functions through a mixed system of medical practices. There are four key actors: Government, private sector, NGOs and donor agencies. Ministry of Health and Family Welfare provides services through different executing and regulatory authorities primarily in rural areas, and health services in urban areas are delivered by Ministry of Local Government, Rural Development and Cooperatives in partnership with NGOs and the private sector. Thus the Ministry has been empowered to act as central body for regulating a wide range of health agencies, including medical professions and institutions (Naheed and Hort, 2015).

The existing structure and management of health organizations require further improvement to make the health system accountable to its stakeholders, preventing absenteeism among doctors, improving service quality and performance of service providers, and other challenges for the health sector. Bangladesh has achieved MDG 4 by reducing child death ahead of the 2015 target, and rapidly improving in other indicators including maternal death, immunization coverage, and survival from infectious diseases including malaria and tuberculosis, and diarrhea. Now the Ministry of Health and Family Welfare would need to improve its coordination with other ministries and NGOs that are directly and indirectly involved with health services to maintain these successes.

# 13.0 Issues in Population Planning

## 13.1 Trend of population growth

Bangladesh is one of the most densely populated countries in the world. In 1981 Census, the total population of Bangladesh was 89.9 million which has increased to 130.5 million in 2001 and 149.8 million in 2011 Census. During the period of 1974-2011, the share of young population (0-14 years) to the total population has declined to 34.4 percent in 2011 from 48.0 percent in 1974 mostly due to declining trend in fertility. On the other hand, the share of working population (15-59 years) to the total population has increased to 58.1 percent in 2011 from 46.3 percent in 1974 and the proportion of older people (aged 60+) has increased gradually over time reaching 7.5 percent in 2011 (Figure 8).



## 13.2 Projection of Bangladesh population 2011-2041

Projection of population by age, sex, and place of residence (rural-urban) is essential for long-term planning. A recent projection by Bangladesh Bureau of Statistics shows that the total population of Bangladesh will increase to 171.68 million in 2021, 190.74 million in 2031, and 205.64 million in 2041. Due to balanced sex ratio, there will be almost equal number of males and females in the projected population with some exceptions. The percentage of population living in urban areas is projected to increase to 29.7 percent in 2021, 33.8 percent in 2031 and 38.5 percent in 2041 (Table 1).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 1: Projected population in Bangladesh under medium scenario: 2011-2041 | | | | | |  |
| Year | National  (millions) | Male  (millions) | Female  (millions) | Percentage of Urban Population | | |
| Low variant | Medium Variant | High Variant |
| 2011 | 149.76 | 74.98 | 74.78 | 23.4 | 23.4 | 23.4 |
| 2016 | 160.22 | 80.03 | 80.19 | 26.5 | 27.9 | 29.3 |
| 2021 | 171.68 | 85.80 | 85.88 | 28.2 | 29.7 | 31.2 |
| 2026 | 182.09 | 91.05 | 91.04 | 30.1 | 31.7 | 33.3 |
| 2031 | 190.74 | 95.52 | 95.21 | 32.1 | 33.8 | 35.5 |
| 2036 | 198.50 | 99.54 | 98.96 | 34.3 | 36.1 | 37.9 |
| 2041 | 205.64 | 103.12 | 102.52 | 36.6 | 38.5 | 40.4 |

Source: Bangladesh Bureau of Statistics, 2015

During the period of 2011-2041, the number of young population (0-14 years) is projected to decline to 41.17 million in 2041 from 51.87 million due to declining trend in fertility. The size of the working population aged 15-59 years will be 111.71 million in 2021, 124.93 million in 2031 and 134.53 million in 2041. The number of elderly population aged 60 and above is projected to increase to 14.16 million in 2021, 20.70 million in 2031 and 29.94 million in 2041. Thus the total older population (60+) is projected to reach 14.6% of the total population in 2041 (Table 2). A separate projection of older population aged 60-64 years and 65+ years are shown in Table 2 for policy purposes and social safety programs.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 2: Age-Specific Projected Population in Bangladesh in millions (medium scenario) | | | | | |
| Year | National | 0-14 years | 15-59 years | 60-64 years | 65+ years |
| 2011 | 149.76 | 51.87 | 86.71 | 4.09 | 7.10 |
| 2016 | 160.22 | 48.99 | 99.42 | 3.37 | 8.44 |
| 2021 | 171.68 | 45.82 | 111.71 | 5.13 | 9.03 |
| 2026 | 182.09 | 45.96 | 119.38 | 5.78 | 10.99 |
| 2031 | 190.74 | 45.11 | 124.93 | 7.44 | 13.26 |
| 2036 | 198.50 | 42.94 | 130.41 | 8.62 | 16.53 |
| 2041 | 205.64 | 41.17 | 134.53 | 9.52 | 20.42 |

Source: Bangladesh Bureau of Statistics, 2015

## 13.3 Projection of labour force and youth population

The share of labour force (15-59 years) to the total population is projected to reach 65.4 percent in 2041 from 57.9 percent in 2011. During this period the dependency ratio will continue to decline raising opportunities for rapid economic growth. The total number of women in the reproductive age (15-49 years) increase to 49.73 million in 2021, 53.24 million in 2031, and 52.98 million in 2041 suggesting there should be adequate planning for their reproductive health needs. Finally, the number of youth population (15-29 years) will increase to 49.28 million in 2021, 48.05 million in 2031, and 45.23 million in 2041. These large number of youth population will require quality education, training, and other support services for translating them into human resources (Table 3).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 3: Age-Specific Projected Population in Bangladesh under medium scenario | | | | | |
| Year | National (millions) | Labour Force (%) (15-59) | Dependency Ratio (0-14 and 65+) | Female Population Aged 15-49 (millions) | Projected Youth Population  (15-29 Years)  (in millions) |
| 2011 | 149.76 | 57.9 | 0.694 | 39.94 | 41.22 |
| 2016 | 160.22 | 62.1 | 0.559 | 44.90 | 44.37 |
| 2021 | 171.68 | 65.1 | 0.469 | 49.73 | 49.28 |
| 2026 | 182.09 | 65.6 | 0.455 | 51.87 | 50.79 |
| 2031 | 190.74 | 65.5 | 0.441 | 53.24 | 48.05 |
| 2036 | 198.50 | 65.7 | 0.428 | 53.35 | 44.96 |
| 2041 | 205.64 | 65.4 | 0.425 | 52.98 | 45.23 |

Source: Bangladesh Bureau of Statistics, 2015

## 13.4 Trend of Total Fertility Rate (TFR) and Contraceptive Prevalence Rate

Bangladesh has made outstanding success in declining the total fertility rate (TFR)—average number of children born per woman during their reproductive age of 15-49 years. For instance, TFR in Bangladesh has decline from 6.3 children per woman in 1975 to 4.3 children in 1991, 3.0 children in 2004, and 2.3 children in 2014. It is worthwhile to mention that during the same period contraceptive prevalence rate (CPR) has increased from 7.7% in 1975 to 39.9% in 1991, 58.1% in 2004 and 62.4% in 2014 (NIPORT, Mitra and Associates, and ICF International, 2016). From a policy perspective, the key point here is to achieve the replacement level of fertility (i.e., 2.1 children per women on average) through increasing CPR, and thereafter continue declining TFR to control population growth in one hand and minimize the impact of population momentum on the other.

## 13.4 Trends of socioeconomic development

Bangladesh has been very successful in reducing national poverty rate from 56.7% in 1991-92 to 48.9% in 2000, 31.5% in 2010 and 24.8% in 2015 with a relatively faster decline in the last decade (GED, 2016). The prevalence of child marriage among girls (marriage before age 18) in Bangladesh has declined to a slower extent from 73% in 1993-94 to 59% in 2014. Bangladesh has achieved remarkable success in universalisation of primary education through increasing equitable access to education, reducing dropouts, improving completion of the cycle, and implementing a number of quality enhancement measures in primary education. Adult literacy rate (15+ years old population) has increased from 37.2% in 1990-91 to 52.8% in 2000 and 64.6 in 2015 (SVRS, 2015). Labour force participation rate has increased from 51.2% in 1990-1991 to 58.7% in 2015. However, there are substantial differences in labour force participation rate between males and females (e.g., in 2013, males: 81.2% and females: 33.5%).

# 14.0 Climate Change, Displacement and Health

Globally, Bangladesh is widely considered as one of the most climate vulnerable countries. In the 2017 Global Climate Risk Index, Bangladesh was identified as the sixth most affected country during 1996-2015. In recognition of Bangladesh’s far-reaching initiatives to address climate change, the United Nations Environmental Program (UNEP) awarded its highest environmental award – Champions of the Earth – to the Honorable Prime Minister Sheikh Hasina in 2015. Through the award UNEP recognizes Bangladesh's first-off-the-block initiatives under the current government to prepare the ecologically fragile country for the challenges it faces from climate change.

## 14.1 Effects of climate change on displacement

The frequent occurrence of natural hazards in Bangladesh leads to loss of life, land, homes, livelihoods, and to the forced displacement of individuals across the country. Importantly all natural hazards are expected to increase in both frequency and intensity as a result of climate change – almost inevitably leading to the displacement of many millions more across Bangladesh (IOM, 2009). Islam and Shamsuddhoa (2017) showed that the rapid onset disasters usually caused mass displacement, while the slow onset disasters affected the environment, local ecosystem services and employment opportunities that forced people to undergo routine economic migration at first, followed later by permanent migration. Thus, it is estimated that six million people have already been displaced by the effects of climate hazards in Bangladesh (ACR, 2012). In addition, a recent Intergovernmental Panel on Climate Change (IPCC) report claims that a one meter rise in sea level will inundate some 13 per cent of land mass in the southern belt, displacing some 15-20 million people by 2050.

## 14.2 Effects of climate change on health

Climate change has wide range of effects on human health. For example, WHO (2003) found that in 2000, climate change has caused loss of over 160,000 lives annually. The health outcomes due to the effects of climate change included: episodes of diarrheal disease; cases of Plasmodium falciparum malaria, fatal accidental injuries due to floods and landslides; and malnutrition. Millions of people in also Bangladesh suffer directly or indirectly from water and vector-borne diseases. The actual health impacts of climate change are likely to be influenced by local environmental conditions, socioeconomic circumstances, and behavioural adaptations taken to reduce the full range of threats to health. Due to climate change induced differences in temperature and precipitation, the dynamics of vector-borne diseases such as dengue and malaria will increase. Dengue was not prevalent in Bangladesh until 2000. Since then, the disease became predominantly endemic in urban areas. The incidence of dengue occurs every year in Bangladesh, especially Dhaka causes a constant threat to the population and is a recurring problem for the health authorities.

## 14.3 Issues of Elderly People

The proportion of elderly population will continue to increase over time in Bangladesh due to increasing trend in life expectancy and declining trend in fertility. Previous research on elderly people in Bangladesh suggest that older people suffer from multiple health problems including higher prevalence of heart disease, diabetes, high blood pressure, weakness, dementia, tooth problem, hearing problem, vision problem, rheumatic pain and stiffness in joint, prolonged cough, breathlessness, bronchial, asthma, and shortness of breath and chest pain. Financial insecurity is an influencing factor that makes elderly people more vulnerable in a society. The more people get older, the more they become dependent on others in terms of financial security as they lose the capacity of earning. Though pension scheme for the public servants is availed by the government, it covers only a small portion of the elderly population.

# 15.0 Challenges in Health and Population Management

***Challenges in maternal healthcare***

Although ANC coverage has increased substantially over time, still 21.0% women do not receive any ANC checkup and 69.0% women do not get the required four ANC visits suggesting that a large number of women are yet to realize the full risk of not doing checkup during pregnancy. Rural women, women with no education or lower education, and poor women are more likely not to receive ANC checkup. The key challenge is to ensure that all women become conscious about ANC checkup and receive at least four visits to avoid any risk of loss of pregnancy.

Another challenge of maternal health care is increasing the rate of facility delivery. Still 63.0 percent women give births at home instead of going to health facility indicating a daunting challenge in ahead in increasing facility delivery rapidly. The reasons for higher number of home delivery include lack of awareness among women in giving births at home, lack of money to give birth in facility, religious reasons, poor quality services in some health facilities, and expensive facility delivery in private sector, and higher chance of taking to C-section for delivery. Caesarean sections have increased five-fold over a ten-year period particularly in the private sector and are a cause for concern. Similarly, about two third women are not getting PNC care indicating that greater efforts are needed to ensure higher rate of PNC across the country. Improving access and utilization of preventive and curative services of maternal morbidities like fistula is another area that demands attention.

***Challenges in child health care***

The major challenge in child health care is to eliminate the differences in child health status across socioeconomic and spatial characteristics. For example, currently child mortality is 24% higher in rural areas than in urban areas. Under-five mortality is higher among mothers with lower education. Similarly, among the poorest women under-five mortality is higher. In addition, under-five mortality rate is 9% higher among female children than male children. In addition, coverage of vaccination is lower among higher birth order, lower educated mothers, and poorer women. The prevalence of diarrhea is higher among children living in households with non-improved toilet facilities. The use ORT and zinc for diarrheal treatment is profoundly observed for male children and children living in urban areas. The children living in rural areas and in Rajshahi and Sylhet regions are more likely to suffer from ARI than children living in urban and other regions.

Despite the progress in reducing child mortality neonatal deaths still remain high primarily because most deliveries take place at home without access to proper medical care. This has been further compounded by lack qualified staff and shortages of supplies in many health facilities. As a result, those who go to health facilities do not get quality services in most cases. Improving the provision of early essential newborn care practices and interventions (immediate drying and wrapping, skin-to-skin contact with the mother, delayed cord clamping and clean cord care, delayed bathing and immediate breastfeeding) is of high priority and will require greater coverage of skilled delivery care and an emphasis on improving quality of delivery and immediate newborn care. Drowning and injury is the leading cause of death among children older than one year which has become another major challenge in preventing child mortality in Bangladesh.

***Challenges in adolescent reproductive health***

Adolescent reproductive health issues include level of awareness among adolescents about their reproductive health, early pregnancy, extent of unwanted pregnancy, septic abortion, STI and HIV/AIDS. In the traditional Bangladesh society, many adolescents do not get clear information from parents, peers and teachers about their reproductive health issues. As a result, many adolescents are not aware about their reproductive health problems. The prevalence of adolescent pregnancy is still high in Bangladesh despite substantial decline in fertility rates. Findings from the 2014 Demographic and Health Survey showed that 31.0% of adolescents age 15-19 in Bangladesh were already mothers or pregnant with their first child. The total fertility rate would be 30% lower in Bangladesh if unwanted births were avoided. The prevalence of unwanted births is even higher among adolescents due to their limited role in family decision making process including taking decision to use contraceptives.

There are three types of challenges in ensuring adolescent reproductive health. First, there are some physical access challenges which include inadequate reproductive health service points and absence of peer group approach in the service point. Second, there are psychological and social challenges such as shyness of adolescents to discuss the reproductive health issues; keeping reproductive health problems secret; ignorance about sexuality; and parents/guardians who are uninformed about adolescent reproductive health. Third, there are quality barriers which include the service environment, which does not ensure privacy and confidentiality of adolescent service seekers; lack of professional staff; inadequate supervision and monitoring of ARH services; and relatively high service charges.

***Challenges in utilization of health care services***

The major challenge in utilization of health care services is to eliminate disparities between rich and poor and for girls and women regarding health outcomes and health care utilization. Islam and Biswas (2014) revealed that poor and the disadvantaged groups still have significantly less access to health care services than the rich and the privileged. For example, only 8% of pregnant women from the poorest income quintile deliver their babies at any health centre or clinic compared to 53% pregnant women from the richest income quintile. There is serious disparity in terms of antenatal and post-natal care too. In addition, a large number of rural people mostly depend on unqualified informal health providers for their health needs. However, in the absence of a prescription policy, households end up spending much more at drug outlets due to overprescribing, multidrug prescribing and prescribing of expensive drugs by these unregulated and untrained informal providers mostly in the rural areas due to limited options and availability. Such disparity in the distribution of health service facilities and access to qualified providers has created geographic inequity in access to quality care and prevents the majority of the population from the benefits of health services (Islam and Biswas, 2014).

Another challenge is to ensure equity in universal health coverage. A health system consists of six interrelated and interdependent building blocks – efficient and effective health service delivery; appropriately skilled, adequate number and properly distributed health workforce; a well functioning health information system; equitable access to essential medical products and technologies; adequate financing; and leadership and good governance. These building blocks are interrelated and need to address them simultaneously in order to overcome the drawbacks of the overall health system.

***Challenges in Essential Service Package/Essential Service Delivery (ESD)***

National survey and program implementation reports highlighted some key indicators of low performing areas such as place of delivery, use of skilled birth attendance, infant mortality, poor utilization of service facilities and scaling up infant and child nutrition. Additionally, there has been more limited progress in service provision for hard to reach populations and various disadvantaged and marginalized groups. Lack of adequate health work force has plagued service delivery in hard to reach areas. Greater efforts are needed in strengthening the ESP, secondary and tertiary healthcare and in underpinning the public-private relationship in providing health services. Availability of services to all sections of society, addressing the current inadequate services to rural and urban hard to reach areas, and an effective referral system between different tiers of health system, building public-private partnership and integration of other services are the major challenges of the ESP..

Family planning is one of the major components of ESD. Although Bangladesh has achieved remarkable progress in improving contraceptive prevalence rate (CPR) from 7.7% in 1975 to 62.4% in 2014, there are numerous challenges ahead for Bangladesh in further increase of CPR including addressing the need for increasing number of population, reducing regional differences in contraceptive prevalence rates, eliminating rich-poor differentials in contraceptive use rate, and increasing use of long-acting and permanent methods of contraception (LAPM). Another challenge of increasing contraceptive prevalence rate is distribution of new generation of contraceptives. Currently, second generation contraceptive methods are distributed by the Government through its large scale family planning programmes. Third generation contraceptives are already available in the market which are more effective and have lower side effects compared to second generation contraceptives. To achieve the desired target of CPR in the long-term planning it will require to provide new generation contraceptive methods to clients.

Changes in disease pattern from communicable diseases to non-communicable diseases will pose another challenge. The health service delivery system will need to ensure adequate response to the changing pattern of disease but at the same time it is important to ensure that it does not reduce its efforts to tackle important communicable disease prevention and treatment interventions. Another challenge in ESD is the existence of co-morbidity among people. Acute respiratory infection, diarrhea and measles are three common causes morbidity for children, while the major cause of morbidity for people aged 64 and above are arthritis, blood pressure and diabetes. The proportion of most of the diseases is higher for people of the lowest wealth quintile. However, non-communicable diseases such as diabetes, high blood pressure and cancer are predominantly observed among people in the highest wealth quintile and in urban areas. Tackling the burden of non-communicable diseases will be another major challenge for ESD due to the increasing number of ageing population.

***Challenges in healthcare system***

The extent of service outlets in public and private sectors, and the coverage of primary healthcare (PHC) have substantially increased over time but these are not adequately provisioned for human and other resources including drugs, instruments and supplies. Counting both public and private hospitals and clinics, there is 1528 population per hospital bed in 2016 (DGHS, 2016). Moreover, there is large variation in terms of hospitals’ bed and population ratio by division. The health facilities, particularly public sectors facilities, in Bangladesh are poorly equipped with medical equipment and instruments. Lack basic instruments and the supply of drugs are also inadequate and infrequent in many of the lower-level facilities. However, the private sector, especially the emerging high-cost hospitals and clinics in the urban areas, have all the major diagnostic equipment and facilities.

With regards to workforce, the health system in Bangladesh is characterized by shortage, inappropriate skill mix and inequitable distribution. Doctor-population ratio is very high in Bangladesh. The nurse-patient ratio is also much lower than international standard. In addition, there is a large variation in terms of sanctioned post and posts filled. For example, the percentage of sanctioned physician posts filled is the lowest in union level public facilities (22%). In contrast, sanctioned physician posts are filled in 62% of district and Upazila facilities and in over 80% of NGO facilities and private hospitals (NIPORT, Mitra and Associates, and ICF International, 2016). The engagement of the health workforce in the private sector is increasing. The formal health workforce (doctors, dentists, nurses) is mostly concentrated in the urban areas, with variation among the different regions. Retention and absenteeism of health workers are two major problems facing rural areas (Ahmed et al 2015).

The findings of Health Facility Survey reveals that on average only 8% of all service facilities including community clinics (CCs) provides all (child curative care, child growth monitoring, child vaccination, FP, ANC and delivery care) the basic healthcare services. Additionally, only 4% of all the health facilities have all six basic amenities (communication equipment, computer with internet, client toilet facilities, consultation privacy, improved water source and regular electricity). Only 3% of all the facilities have all basic nine items to control infections while 7% of the health facilities have capacity to conduct basic laboratory test (hemoglobin, blood glucose, urine protein, urine glucose and urine pregnancy). More than three quarters of health facilities have at least six of eight essential medicines included in the drug and dietary supply kit (NIPORT, Mitra and Associates, and ICF International, 2016). Thus ensuring all the basic health care services in all health facilities with all basic amenities is one of the major challenges of the health care system in Bangladesh.

***Challenges in water, sanitation and hygiene practices***

Although water and sanitation coverage of Bangladesh increased substantially, still the quality of water and sanitation facilities needs further improvement. The share of GOB financing needs to increase for ensuring sustainability and close monitoring of water, sanitation and hygiene sectors. For instance, the quality of sanitation coverage is an emerging area of concern as still substantial number of population does not have improved latrine facilities or access to hygienic sanitation facilities (MICS 2015). For water supply, drinking water is undermined by severe quality issues. For example, 26% of the households’ drinking water is contaminated with 10 ppb arsenic concentration and another 13% of the households’ using water with over 50 ppb arsenic concentration. The rapid growing of low income community including the slum dwellers, fecal contamination with drinking water, presence of other health significant chemical constituents in ground water and extreme climate events have continuously been adding new challenges in these sectors.

Lack of hygienic practices is one of the major challenges of the water and sanitation sector. Still a significant proportion of all population is not practicing proper hygiene due to scarcity of opportunities, poor knowledge and previous practices. To address this challenge, the GOB has formulated a Hygiene Promotion Strategy-2012 and has emphasized improving hygiene practices in the National Strategy for Water Supply and Sanitation 2014 aiming to promote sustainable use of improved water supply and sanitation infrastructures and to create an enabling environment ensuring comprehensive hygiene promotion and practices to reduce water and sanitation related diseases. Now the key challenge here is proper implementation of the strategies across the country.

***Challenges in ensuring nutrition among children and mothers***

Although Bangladesh has achieved remarkable success in ensuring nutrition among children and mothers still there are numerous challenges ahead for Bangladesh in achieving the desired success in nutrition sector due to large number of population in one hand and frequent onset of disasters on the other. Findings from the Bangladesh Demographic and Health Surveys show that the pattern of stunting varies by the background characteristics of the children such age and gender and their parental status. The prevalence of stunting increases with age. Male and rural children are more likely to be stunted than their counterparts. Additionally, the prevalence of stunting differs by birth interval, region and parental wealth status. Almost similar variations were found regarding wasting of the children. The prevalence of underweight is higher among rural and female children than their counterparts. It continues to increase with increasing age. The lowest prevalence of underweight was found among the richest and educated mothers. Childhood underweight also differs by region, such as Sylhet has the highest rate of stunting and underweight compared to other regions. The prevalence of stunting, wasting and underweight correspondingly varied within urban populations. Urban people live in slum areas are more prevalent to be stunted, wasted and underweighted than their counterpart.

Other challenges in nutrition sector include inadequate human resources, poor accountability both in public sector and NGOs, poor monitoring and evaluation, and lack of coordination among different ministries and organization. Therefore, the key challenges for promoting programmes to prevent undernutrition at the national level in Bangladesh include: placing nutrition high up on the list of priorities, implementing cost-effective and sustainable interventions at scale following appropriate strategies, improving access to the services for those in real need, and evidence-based decision-making and building up operational capacity.

***Challenges of addressing gender issues in health and nutrition***

Addressing gender issues in health and nutrition is of crucial importance in achieving the SDGs related to maternal and child health. There are three major challenges in Bangladesh in addressing gender issues in health and nutrition. First challenge is to improve women’s status and intra-household bargaining capacity in relation to child survival, health and nutrition. Improved women’s status contributes to influence decision-making within the household in allocating resources for children’s health and nutrition (i.e. feeding practices, prenatal and birthing care, treatment-seeking for child illness and immunisation). Second challenge is to reduce the double burden of women in household maintenance and rearing children. Women’s multiple responsibilities (e.g., domestic tasks, child care and paid labour) present a heavy burden on women which has potentially negative impacts for child health and nutrition outcomes. Third challenge is to reduce the influence of gender norms, values and identities in relation to child survival, health and nutrition. Socio-cultural values which perpetuate certain expectations about women’s and men’s capacities, characteristics and social behaviour underpin many of the imbalances in between women and men. These have serious consequences for child survival, health and nutrition, especially in contexts where gender bias against girls exists.

**Challenges in health sector Management and administration**

As mentioned earlier, there are four key actors in the health system in Bangladesh: Government, private sector, NGOs and donor agencies. Ensuring effective coordination of the Ministry of Health and Family Welfare with other ministries, private sectors, NGOs and donor agencies is one of the major challenges in health sector management and administration. The government adopted the National Health Policy 2011 with an aim to ensure healthcare services to all. However, ensuring accountability of health personnel and taking effective legal action against doctors for negligence or remaining absent from work are yet challenges in health sector management and administration. In some cases, medical practitioners, private clinics, and private laboratories take arbitrary changes from patients and there are huge differences in fees among institutions. There are lack of clear regulatory frameworks for provision of mandatory display of consultation fees and investigation charges across the private sector health delivery system. Addressing these imitations is obviously among the challenges in health care management and administration. Finally there are three major challenges of health financing in Bangladesh: inadequate health financing; inequity in health financing and utilization; and inefficient use of existing resources.

***Challenges in population management***

Despite substantial progress in declining population growth rate from 2.35% in 1981 census to 1.37% in 2011 census the total population of Bangladesh has increased gradually from 89.9 million in 1981 census to 149.8 million in 2011 census. Estimates from Bangladesh Bureau of Statistics (BBS) showed that the total population of Bangladesh has increased to 16.8 million in 2017. In this context, the biggest challenge for Bangladesh is the containment of population growth through reduction of total fertility rate (TFR) while maintaining rapid economic growth. Although the TFR has decline from 6.3 children in 1975 to 2.3 children in 2014, declining TFR much below the replacement level of 2.1 children per woman will be challenging due to desire for son, future insecurity for poor parents, engagement of large number of people in informal section with no pension benefits, and religious reasons. Second, children in Bangladesh face a range of difficult issues that hamper their survival and development, and prevent the full realisation of their rights and potential. Creating enable environment for child development through preventing violence and abuse against children, eliminating child labour from informal sector as well, and preventing child marriage, and preventing child trafficking is a huge challenge.

Third, due to sustained high fertility in last few decades Bangladesh has a large number of youth population (aged 15-29) which is also an opportunity of rapid economic development—also known as demographic dividend. However, the biggest challenge in achieving the demographic dividend in Bangladesh is to translate the large number of youth population into human resources through providing quality education, skill building training professional development, and employment opportunities. Fourth, international migration is often considered as a possible solution in managing large number of population. International migration reduces the pressure employment creation in domestic labour market while providing crucial contribution to economic growth through the flow of remittance. However, with large number of working population having lower education, lack of skilled training, and lack of proficiency in foreign languages, maintaining the continuous flow of sending workers in abroad might be very challenging in the future. Finally, the share of ageing population (aged 60 and above) is increasing gradually and it is projected to become double by 2041 (from 7.5% in 2011 to 15.0% in 2041). Managing the increasing ageing population through delivering quality services to fulfill their basic needs including health care will require large scale investment and efforts.

**Challenges in climate change, displacement and health**

There are two types of climate induced displacement: short-term displacement and long term displacement. Short-term climate-displaced people take shelter in various places including embankments, schools and shelter centers. People in general and women and children in particular experience various insecurity in these places. They also undergo insecurity related to their basic needs which needs to be addressed properly. The long term displaced people usually migrate to cities for better livelihood which eventually promote unplanned urbanization and generate various consequences related to their food, health and livelihood opportunities. Most of them live in slums and experience lack of employment opportunities and failure to fulfill basic needs in their daily life. Thus, providing all kinds of services to them including better employment opportunities are among the major challenges in address vulnerabilities of climate displaced people. There are also concerns that due to increasing pattern of occurrence of disaster millions of people will become displaced which would cause social disorders, political instability, and cross-borders conflicts and upheavals.

Findings from previous studies showed that climate change would increase risks to human health, especially in light of the poor state of the country’s public health infrastructure. It is very challenging to ensure access to adequate health care for the poorest and most vulnerable who are also likely to be the group most adversely impacted by any adverse change in human health. Furthermore, warmer and more humid weather may lead to an increased prevalence of disease and disease vectors, to which the poor will be the most susceptible. In addition, climate displaced people are often forced to relocate to any land available, in practice this often leads to illegal squatting on Government land in vulnerable and isolated locations, far removed from adequate and accessible healthcare. This process exposes climate displaced persons to further health risks.

**Other challenges in health and population management**

In addition to the above mentioned challenges, there are some other issues that need urgent attention to deliver quality health care services in Bangladesh. For example, a large number of people in Bangladesh turn to private sector health providers and informal service providers are frequent (village doctors, unqualified/semi-qualified providers) first resort often for poor and remote villagers. A strong and effective regulatory structure is needed to ensure that private sector is delivering quality health care services to people at a reasonable cost. Another important issue is the state of mental health care services. Though health implies both physical and mental health, psychological aspect of health is yet to receive proper attention. People are less aware, services are limited, and social stigma is attached with it. However, due to various socioeconomic reasons increasing number of people are in desperate need of such essential services. Developing and delivering a comprehensive mental health service is an important issue to address. Moreover, there are challenges in ensuring adequate health care services for disables, providing opportunities for quality alternate medical care, and delivering health promotion services through behavioral change and communication.

# 16.0 Targets in Health and Population Management for the Perspective Plan II

***Targets for improving maternal health***

* Increase ANC-4 visits coverage from 31% in 2014 to 50.0% in 2021, 75.0% in 2025 and 100.0% by 2030 by skilled health professionals.
* Increase facility-base delivery from 37% in 2014 to 50% by 2030 and 75% by 2041.
* Increase births attended by skilled health professionals from 42% in 2014 to 65% by 2021 and 85% by 2030 and 100% by 2041.
* Increase PNC coverage for mothers and children by skilled health providers from 39% in 2014 to 45% by 2021, 50% by 2030 and 75% by 2041.
* Reduce maternal mortality ratio (per 100,000) from 178 in 2016 to 100 by 2021, 80 by 2025, 60 by 2030, 40 by 2035, and less than 10 by 2041.

***Targets for improving child mortality and life expectancy***

* Reduce neonatal mortality rate (per 1000 live births) from 19 in 2016 to 14 by 2021, 10 by 2025, 5 by 2030 and less than 5 by 2041.
* Reduce post-neonatal mortality rate (per 1000 live births) from 9 in 2016 to 5 by 2030, and less than 5 by 2041.
* Reduce infant mortality rate (per 1000 live births) from 28 in 2016 to 20 by 2021, 15 by 2025, 10 by 2030, and to less than 5 by 2041.
* Reduce under-five mortality rate (per 1000 live births) from 35 in 2016 to 30 by 2021, 20 by 2025, 10 by 2030, and less than 5 by 2041.
* Increase life expectancy from 71.6 years in 2016 to 73 years by 2021, 74 years by 2030, and 77 years by 2041.

***Targets for Improving Essential Health Services***

* Increase contraceptive prevalence rate from 62.4 in 2014 to 75.0% by 2021, 80.0% by 2030, and 85.0% by 2041
* Reduce discontinuation of contraception use from 29.7% in 2014 to 20.0% by 2021, 10.0% by 2030, and 5% by 2041.
* Reduce unmet need for family planning from 12.0% in 2014 to 7.0% by 2021, 4.0% by 2030, and less than 2.0% in 2041.
* Increase all vaccination coverage to 100% by 2041
* Increase diarrheal treatment with ORT and zinc to 75% by 2041
* Ensure universal coverage of vitamin-A supplementation by 2030.
* Increase ARI treatment from a medically trained provider to 85% by 2041
* Reduce incidence of communicable diseases to half by 2021 and end the epidemics of tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases including AIDS by 2030.
* Reduce one-forth pre-mature mortality from non-communicable diseases by 2021, one-third non-communicable diseases by 2030, and two-third non-communicable diseases by 2041 through prevention and treatment and promote mental health and wellbeing.
* Reduce number of deaths and injuries from road traffic accidents to 50% by 2020, to 75% by 2030, and 100% by 2041.

**Targets for improving health care delivery system**

* Increase the ratio of doctors to nurses to technologists of 1:3:1 by 2030 and 1:4:2 by 2041
* Filled all sanctioned post union and sub-district levels by 2030 and create enabling infrastructure and environment for trained nurse and MBBS doctor at union level health facilities by 2041.
* Ensure availability of six basic amenities at union level health facilities and ensure online referral system to UHC to 25% by 2021, 50% by 2030 and 100% by 2041.
* Ensure availability of all basic nine items to control infections of the facilities to 25% by 2021, 50% by 2030 and 100% by 2041.
* Establish basic laboratory test facilities at union level health center to 25% by 2021, 50% by 2030 and 100% by 2041.

**Targets for improving in water, sanitation and hygiene practices**

* Ensure universal access to improved arsenic-free water for drinking and households’ use by 2041 by given priority to arsenic mitigation and specific approaches for hard-to-reach areas and vulnerable people
* Achieving fecal load free environment, and ensure universal access and utilization to quality sanitation facilities and reducing rich-poor differentiation at zero level by 2041.
* Ensure improved and functional sanitation facilities at all schools by 2041 maintaining both the student-latrine ratio and gender ratio.

**Targets for improving nutrition among children and mothers**

* Remove nutrition deficiency among 85.0% people by 2021, and end all forms of malnutrition by 2030
* End all forms of stunting and wasting among children under 5 years of age by 2030
* Adequately address the nutritional needs of adolescent girls, pregnant and lactating women by 2041.
* Increase the rate of Vitamin A supplement among mothers to 75% by 2021 and 100% by 2030.
* End all forms of micronutrient deficiencies among children and women by 2030

**Targets of gender issues in health and nutrition**

* End all forms of discrimination against all women and girls everywhere by 2030
* Ensure universal access to sexual and reproductive health and reproductive rights by 2030
* Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels by 2030

**Targets on population issues**

* Reduce total fertility rate (TFR) from 2.3 in 2014 to 2.0 by 2021, 1.90 by 2025, 1.80 by 2030, 1.75 by 2035, and 1.70 by 2041.
* Limit total population from 149.8 million in 2011 to 169 million by 2021, 175 million by 2025, 183 million by 2030 and 195 million by 2041.
* End child marriage under the age of 15 by 2021 and end all child marriage under age 18 by 2041.
* Reduce national poverty rate from 24.8% in 2015 to 18.0% by 2021, 10.0% by 2025 and eradicate poverty by 2030.
* Reduce extreme poverty from 12.9% in 2015 to 8.5% by 2021, 4.5% by 2025 and no extreme poverty by 2030.
* Achieve 100% net enrolment rate for primary and secondary education by 2020, increase percentage of cohorts reaching grade 8 to 100% by 2020, and increase adult literacy rate (15+ years old population) from 64.6% in 2015 to 75.0% by 2020, 85.0% by 2030, and 100% by 2041.
* Create adequate employment opportunities to absorb the projected number of labor force over time.

**Targets on climate change, displacement and health**

* Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters across the country irrespective of race, gender and ethnicity.
* Ensure quality education, adequate awareness and human and institutional capacity on climate change mitigation, adaptation and impact reduction.
* Elimination of gender based vulnerability during, pre- and after disaster.
* Introduce disaster insurance to reduce people’s vulnerability to natural disasters and increasing capacity to cope with health care burden during disaster.
* Ensure overall well-being of climate displaced people

**17.0 Strategies for Achieving the Targets in Health and Population Management**

***Strategies to achieve targets related to maternal health***

Reduction in maternal mortality and child mortality in Bangladesh has been achieved through strong Government commitment in HPSP, HPNSP, HPNSDP and other national policies and program implementation. However, greater emphasis should be given on the following strategies to achieve the targets related to maternal and child health in the second perspective plan of Bangladesh:

* Ensure effective utilization of maternal health care services during pregnancy, delivery and post-delivery period, particularly for the poor, marginalized and climate displaced people live remote settings. Improve the availability and quality services on maternal and child health provided by skilled personnel, and ensure prompt and appropriate management of complications in EOC facilities to provide 24 hour services, 7 days a week.
* Address the four main reasons of poor use of maternal and newborn health services: shortage of health care personnel; scarcity of functioning emergency obstetric care at the Upazila level; absence of advice from family regarding when and where to seek medical care; and lack of decision making authority of women.
* Explore the possibility of utilizing vast informal sector of health service delivery particularly for hard to reach areas ensuring proper quality of care and health promotion.
* Ensure quality services in the public delivery care facilities and set-up more delivery care facilities at union level healthcare centers. Increase the number of Community-based Skilled Birth Attendant (CSBAs) through close collaboration with NGOs and private sector, and monitor and supervision the performance of skilled birth attendants (both at facility and at home).
* Promote community clinic-based preconception and pregnancy services by trained providers with a view to replace home-based services. Provide women friendly preconception and pregnancy care, MR and post-abortion services, and 24/7 services for childbirth, newborn and immediate postpartum care.
* Strengthen community support system to identify and remove barriers that lies between poor women and safe delivery including EmOC facilities.
* Adopt specific measures to reduce long-term maternal morbidities, due to complications of pregnancy and child birth among the women of reproductive age. Long-term illness includes fistula, uterine prolapsed, perineal tear, vaginal stenosis, urinary incontinence etc.
* A strong and functional referral system, and public-private partnership with registering and tracking system from union to Upazila and district healthcare facilities needs to strengthen for monitoring progress and client’s needs and dissatisfactions.
* Provide nutritional counselling to adolescent girls, pregnant and lactating mothers, together with Vitamin-A supplementation of mothers at their postnatal period.
* Conduct research to combat the fatal diseases of HIV and health of women during their pregnancy in particular and publicize health information and raise awareness.

***Strategies to achieve targets related to child health***

* Strengthen new born care and expand through building strategic partnerships with NGOs and private sector to leverage the resources and collective efforts to align, harmonize actions and improve public sector efforts including intensification of newborn care promotion.
* Promote essential newborn care through trained providers. To accomplish this provide extensive training to new workers and existing community based workers (FWA, FHA, NGO workers) and support them through operational guidelines and incentives, monitoring and supervision.
* Ensure at least two home visits by trained community health workers within first week of child birth.
* A large number of childhood morbidity and mortality in Bangladesh is caused by five conditions: acute respiratory infections (mostly pneumonia), diarrhea, measles, malaria, or malnutrition. Expand the Integrated Management of Childhood Illness (IMCI) strategy that encompasses a range of interventions to prevent and manage this major childhood illness, both in health facilities and in the home.
* The Government has ensured maternity leave of six months for working mothers in the public sector. However, as per the labour law working mothers in private sector are getting four months maternity leave. Legislate and implement law for the private sector as well to allow mothers to enjoy a leave of six months after the delivery of the child to ensure that the newborn has the right to mother’s breast milk and promote exclusive breast feeding.

***Strategies to achieve targets related to adolescent health***

* Create awareness about the negative consequences of early marriage, early childbearing and having more children.
* Provide quality reproductive health care and other health services to those married as children. Additional support should be provided to catalyze increased knowledge, and attitudinal and behavioral change among service providers with regard to adolescent health.
* Address unmet need of family planning among adolescent married women through giving proper attention to causes of unmet need for family planning such as lack of access, poverty, wrong perceptions, fear of side effects.
* Gatekeepers, formal and informal community leaders, and religious leaders at all levels need to be motivated and trained on adolescent health and gender issues and gender issues.
* Special training should be conducted for adolescent boys and girls at community clinics, satellite clinics, family welfare centers, and Upazila health complexes.
* Increased networking between all relevant government organizations and NGOs working with adolescents should be encouraged to ensure the proper implementation of projects.
* Hard-to-reach, out-of-school adolescents should be encouraged to form groups through which formal and informal leaders provide information and guidance.
* Include adolescent sexual and reproductive health (ASRH) in all national planning frameworks related to human development, allocate adequate resources for proper implementation of ASRH goals and thereafter assess the impact of the interventions in ensuring quality services in areas of ASRH.

***Strategies to achieve targets related to health care delivery system***

* Provide high quality integrated primary health care delivered through domiciliary services, community clinic (CC) and comprehensive static health facilities at union, Upazila and district levels. Establish strong links between the levels providing ESP services through a functioning referral system, ensuring equity, efficiency, universal access and improve quality of services.
* Develop strong and effective public-private partnership in local level health system. Introduce special care and policies targeting poor, marginalized and out-reach people, particularly in disaster and displacement affected areas.
* Increase GOB financing substantially ensure universal access to quality healthcare services by 204. Meeting the targets of vision 2041 will require registering, tracking and responding to each person’s needs and dissatisfactions.
* Establish strong coordination for developing long-term self-sustaining health plans with increasing focus on primary health care and prevention strategies for both acute and long-term care.
* Establish linkages between urban health services and the health ministry, referral systems, deployment of adequately-qualified providers, and a unified and affordable financing for health services in order to reduce high out-of-pocket payments.
* To strengthen the health system, evaluate some of the current vertical programs that show few positive health outcomes such as HIV/AIDS, mental health and urban primary care. Take initiatives for rapid capacity building to prevent the epidemic of non-communicable diseases due to increasing older population.
* To cope with the challenges and increase financial protection for the entire population and decrease out-of-pocket payments at point of service, strictly implement the three strategic objectives: generate more resources for effective health services, improve equity and increase health care access especially for the poor and vulnerable, and enhance efficiency in resource allocation and utilization.

***Strategies to achieve targets related to water, sanitation and hygiene practices***

* Improve quality of water (at the source, in storage, and at the point of consumption) and sanitation to limit transmission of infection. Awareness campaigns along with emotional/social drivers can be effective in meeting these needs.
* Strengthen implementation of hygiene-related activities. Particular emphasis should be placed on increasing the availability of hand-washing stations and ensuring that these are used.
* Give preference to arsenic mitigation technology using surface water sources when other types of arsenic mitigation technologies appear to be equally technically feasible, while also considering factors like chemical and microbial safety of the water, social acceptability and cost. Also promote piped water supply in arsenic affected areas wherever feasible.
* Undertake collaborative initiatives with private sector for promoting hygiene related consumer products like soaps, sanitary napkins, oral rehydration salts (ORS), water storage tanks and hand washing devices. Also undertake national hygiene and sanitation campaign in partnership with media.
* For sustainability and life-long hygienic practices, behavioral change, communication and standard hygienic practices should be the integrated part at school levels. Factors related to unsustainable use of quality water, sanitation and hygienic practice are: poverty, frequent natural disasters and displacement, unplanned urban squatters, lack of coordination among different service sectors and monitoring.

***Strategies to achieve targets related to Nutrition among children and mothers***

* Introduce multiple evidence-based interventions to ensure adequate for children, adolescent girls and women. Interventions that would tackle the direct and immediate factors of undernutrition should target not only the ‘window of opportunity’ or the first 1,000 days (the period between conception and up to two years of age) but also the period before that—the adolescent period as part of the life-cycle approach. The interventions targeting undernutrition should be scaled up to cover at least 70% of the total population to show tangible outcomes.
* Provide supplementation of iron-folic acid tablets to mothers to combat anaemia during pregnancy and lactation and effective counselling for increased rest and food intake during pregnancy and counselling on appropriate infant-feeding practices during the second half of pregnancy.
* Creating an awareness of the importance of breastfeeding through multiple channels, such as classroom discussions for adolescent girls, counselling during pregnancy, feeding support, and trouble-shooting during the first few hours and days after child birth, and media coverage.
* Counselling of mothers on complementary feeding using energy-dense local foods made of cereals, vegetables, oil, lentils, and, whenever possible, animal protein (fish/egg/meat). Providing six-monthly supplementation of vitamin A, zinc treatment and ORT during diarrhea, hygiene interventions, and providing supplementation of iron-folic acid tablets, and nutrition and health education to adolescent girls and newly-married women.

***Strategies to achieve targets related to gender issues in health and nutrition***

Addressing gender issues in health and nutrition is one of the essential conditions for ensuring sustained human development. Given that there are many other socio-cultural factors are related with the gender inequality in health and nutrition, emphasizing only on supplying adequate food and nutrition will not solve the problem. Therefore, following strategies should be taken to address gender issues in food and nutrition.

* Incorporate a gender analysis as part of the regular, nutrition situation analysis, analyzing the needs, priorities and roles of men and women. These analyses should collectively inform project design, formulation, planning and implementation.
* Incorporate gender considerations at all levels, framing such efforts as an opportunity to improve effectiveness and nutritional impact. Including gender considerations enhances impact on both women and men, thereby improving the impact of the project as a whole.
* Women may be targeted as part of the vulnerable group in view of their special vulnerabilities, but men should also be reached to help address their needs as well as those of women. In some cases, this may be achieved by targeting food security and nutrition support to households to emphasize common goals and partnership.
* Targeting youth is also recommended for a number of reasons. First, good nutrition early in life is a basis for good health at later phases as well as for the health of the next generation. Secondly, gender equality is often more accepted among youth. Thirdly, young people may transfer their knowledge, habits and benefits related to gender and nutrition to their parents and/or other adult members of the community.
* Promote gender-sensitive elements in integrated/multi-sectoral nutrition policies, programs and actions. In addition, regularly monitor and evaluate the impact of the gender sensitive elements on reducing gender disparity in health and nutrition. Moreover, explore and successively use the way these components influence each other.
* Support equal rights and access to employment, land and other resources/services such as: Right to Food and other human rights; equal access to education; reproductive health and family planning; women’s access to land, financial services, extension, technology and markets among other areas.

***Strategies to achieve targets related to Health Sector Management/Administration***

* The Bangladesh health workforce strategy 2015 was designed in line with the Government’s commitment to Universal Health Coverage. The strategy includes four cross-cutting guiding principles: gender balance, motivation, partnership and transparency and accountability. Ensure proper implementation of the health workforce strategy to achieve the desired goal of providing quality health care services to all.
* Ensure availability of competent and adequate number of workforces equitably; develop and maintain quality health workforce at all level; recruit, deploy and retain health workforce equitably; promote and maintain high standards in health workforce performance; and use health workforce information system (HWIS) to support health workforce planning and management.
* Ensure maximum utilization of resources allocated for health care delivery.
* Another important area is effective management of manpower so that we can avoid misuse and duplication of human resources for health. In addition, priority should be given to functioning the existing government health facilities.
* Improve management information system with information and communication technology and strictly implement the monitoring and evaluation system.
* Excessive out-of-pocket (OOP) payments for health care (64% of the total health expenditure) have become a burden for millions of population. Bangladesh spends 3.4 % of GDP on health and less than 1% of the populations are covered by an insurance scheme. To cope with the challenges and increase financial protection for the entire population and decrease out-of-pocket payments at point of service strictly implement the three strategic objectives proposed in the Health Care Financing Strategy 2012-2032: (i) generate more resources for effective health services, (ii) improve equity and increase health care access especially for the poor and vulnerable, and (iii) enhance efficiency in resource allocation and utilization.

***Strategies to achieve targets related to population management***

*Strategies for family planning*

* There has been slower increase in contraceptive prevalence rate in recent years. To achieve the desired targets in increasing contraceptive prevalence rate greater emphasis should be given on increasing long acting and permanent methods of contraception (i.e., IUD, Implant, female sterilization, and vasectomy). There are social stigma about using long acting and permanent method in Bangladesh. Adequate awareness program should be taken to eliminate misconceptions about contraceptive methods and making those more acceptable to couples.
* National Broadcast Policy should be reformed for using TV as an electronic media to disseminate health and family planning related Information Education and Communication (IEC)/Social and Behavioural Change Communication (SBCC) activities. DGFP should use TV as media more to communicate health and family planning related messages.
* Area-specific strategy should be adopted in broadcasting IEC/SBCC activities for bringing desired change in health and family planning sectors. In addition, IEC/SBCC activities should disseminate adequate information and counselling to address side effects of using family planning methods.
* Capacity building of the front-line workers regarding interpersonal communication should be strengthened to provide FP-MCH information so that it motivates clients in using service centers.
* Providing new generation of contraceptives (e.g., third generation oral contraceptive) to couples in order to ensure higher efficiency and lower side effects of using contraception.
* Greater investment in female education, creating awareness about the negative consequences of having more children, promoting delay in marriage and child bearing, compensating for lost wages for LAPM are needed to reduce total fertility rate to the target level.
* Using different service delivery approaches for different geographic regions and segments of population. Reducing discontinuation of contraception and unmet need for family planning through quality services, improved communication, and awareness building.

*Poverty eradication*

* Creating adequate employment opportunities, increasing labour productivity and real wages are the most important factor for sustainable reduction in poverty. There are substantial variations in the wages between males and females. Eliminating the wage differential by sex would have substantial impact on poverty reduction in Bangladesh.
* Remittances have wide range of impact on poverty reduction in Bangladesh. Ensure increasing flow of remittance through exploring new labour markets in abroad, sending more skilled and professional workers in abroad and eliminating barriers to sending people in abroad.
* Access to microcredit contributes to poverty reductions to a large extent through increasing consumption and facilitating income generation. Ensure higher access to microcredit among millions of people by providing increasing financial support through partner organizations.
* Tackle income inequality through increase in employment, labour productivity and wages, development of human capital, expansion in microcredit and increased social safety net programs.
* The Government has approved the National Social Security Strategy (NSSS) of Bangladesh in 2015. The NSSS is an inclusive, focused and coordinated approach to poverty reduction in Bangladesh because it recognises the differences in risks at different stages of the life cycle and provides support to various demographic groups. Ensure a successful implementation of the NSSS to eradicate poverty along with extending proper social security to marginal and vulnerable populations.

*Child marriage prevention*

* Create social awareness about the negative consequences of child marriage among boys, girls, parents, teachers, local representatives, and other community people.
* Ensure security of adolescent females through a combination of awareness program and strict implementation of laws related to violence against women.
* Ensure transparent birth registration for all and implement laws against child marriage very strictly.

*Providing quality education*

* Ensure higher than secondary education for all by eliminating dropouts both at primary and secondary levels. Ensure Quality and inclusive education at all levels.
* Ensure teacher competence and school efficiency through ongoing professional development. Provide Continuous support for student-centered learning, establish teacher feedback mechanisms, provide administrative support and leadership.
* More investment should be given on education and skill building which will eventually contribute to enhance competitiveness of Bangladeshi workers.
* Ensure full implementation of National Skill Development Policy (NSDP 2011)

*Creating employment opportunities*

* Ensure smooth transition to labour force participation and self-employment after completing education through creating more employment opportunities for youths by providing diversified technical and vocational education in areas of fish Production, leather, textile, mechatronics, mining & mine survey, Construction, Environmental, Garments Design & Pattern Making, Electro-Medical and the ICT sector.
* Explore new sectors for creating employment opportunities within country and in abroad including greater focus on ICT, agro processing industry, tourism.
* Address the problem of underemployment among youths population both in rural and urban areas and develop a database of graduates with their skills and capabilities. Provide skilled training for becoming an entrepreneur/small business among youth population.

*Promote international migration*

* Explore new job markets abroad where there are decent work opportunities. In addition, adequate initiatives should be taken to ensure regular circular migration indicating that one batch/group will be trained for going abroad by the time other batch/group returns.
* More investment should be given on education and skill building which will eventually contribute to enhance competitiveness of Bangladeshi workers. Provide skill training based on skill demand of local industries and overseas job market.
* Provide legal support services for migration in a transparent and affordable manner by eliminating corruption, harassment and mismanagement in the process of migration.
* National Youth Policy (NYP) needs to be demand driven along with a well-crafted strategy and time bound action plan with adequate resource allocation. It should be more clearly connected to broader national policy frame work including Five Year Plan, PRSP, National education policy, industrial policy, SME policy so that mainstreaming youth issues in all policies of public and private sector initiatives can be ensured.

*Addressing problems of elderly people*

* Elderly people suffer from multiple health problems. Access to adequate information about health care facilities and treatment should be ensured for elderly people. Most importantly, ensure quality health care services for elderly people at free of cost.
* Motivational and awareness programs should be taken to ensure that elderly people are getting adequate care and support from family and society.
* Access to food is the basic human rights. Ensure adequate supply of food for elderly based on their needs. Rationing food should be given to elderly people.
* Initiatives should be taken to ensure adequate financial support for elderly people in Bangladesh. The coverage of old age allowance should be expanded and amount of the allowance should be increased as well to ensure that elderly people can meet their basic needs with the allowance.
* Prevent abuse and exploitation against elderly people through creating awareness program on one hand and taking stern action against those who abuse and exploit elderly people. To achieve this, develop communication system with the elderly people so that they can report complains faster to the legal authority.
* During disaster elderly people have different need compared to other people such as medication and suitable food. To address these problems of elderly people, include particular provisions for elderly people in disaster risk reduction manuals and training activities.
* Ensure proper implementation of initiatives mentioned in the National Social Security Strategy (NSSS) including the Old Age Allowance for senior citizens who are aged 60 years and above and belong to the poor and vulnerable population, explore possibilities to establish a National Social Insurance Scheme (NSIS), to be managed under the Insurance Development & Regulatory Authority (IDRA) under the provision of the Insurance Act-2010, based on the principle of employers and employees jointly paying contribution, provide pensions as well as address other contingencies (such as disability, sickness, unemployment and maternity).

***Strategies to achieve targets related to climate change, displacement and health***

MOHFW has formed a Climate Change and Health Promotion Unit (CCHPU) to ensure coordination of health promotional activities; capacity building for minimizing the consequences of climate change on health. This is an excellent initiative to address health consequences of climate change. Therefore, the key point here is to ensure that the goals are achieved with greater efficiency. In addition, following strategies should be taken to achieve targets related to climate change, displacement and health.

* Enhance understanding, knowledge and capacity at different levels of educational system, invest in leadership and management capacity development of service providers and stakeholders, and promote mechanisms for raising capacity for climate change related effective planning.
* Strengthen integration of climate change adaptation with development efforts through building institutional capacity to integrate CCA in Development programming, prioritizing development projects which have proven adaptation co-benefit potential, and allocating greater investment in the environmental and natural resource management.
* Increase climate change adaptation funding ensure that all components of disaster risk reduction and climate change adaptation are implemented properly and ensure proper utilization of Green Climate Fund.
* Ensure decentralization and local level mainstreaming of disaster risk reduction through incorporating DRR and CCA into district level development plans, strengthening coordination between GOB and civil society at the district level, and providing incentives for design, implementation and maintenance of disaster risk reduction investments in local level.
* Other strategies for addressing problems related to climate change, displacement and health include developing Strong Public Private Partnership along with Global Partnership, introducing disaster insurance for sustained development, strengthening institutional capacity for greater and effective coordination, developing a right based national plan to resolve climate displacement, undertaking advanced research to assess impact of climate change on health, initiating surveillance measures for climate sensitive diseases, and strengthening policy and regulatory framework.

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