# BANGLADESH
# TOWARDS UNIVERSAL
# HEALTH CARE

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# Bangladesh Towards Universal Health Care

Centre for Research and Information

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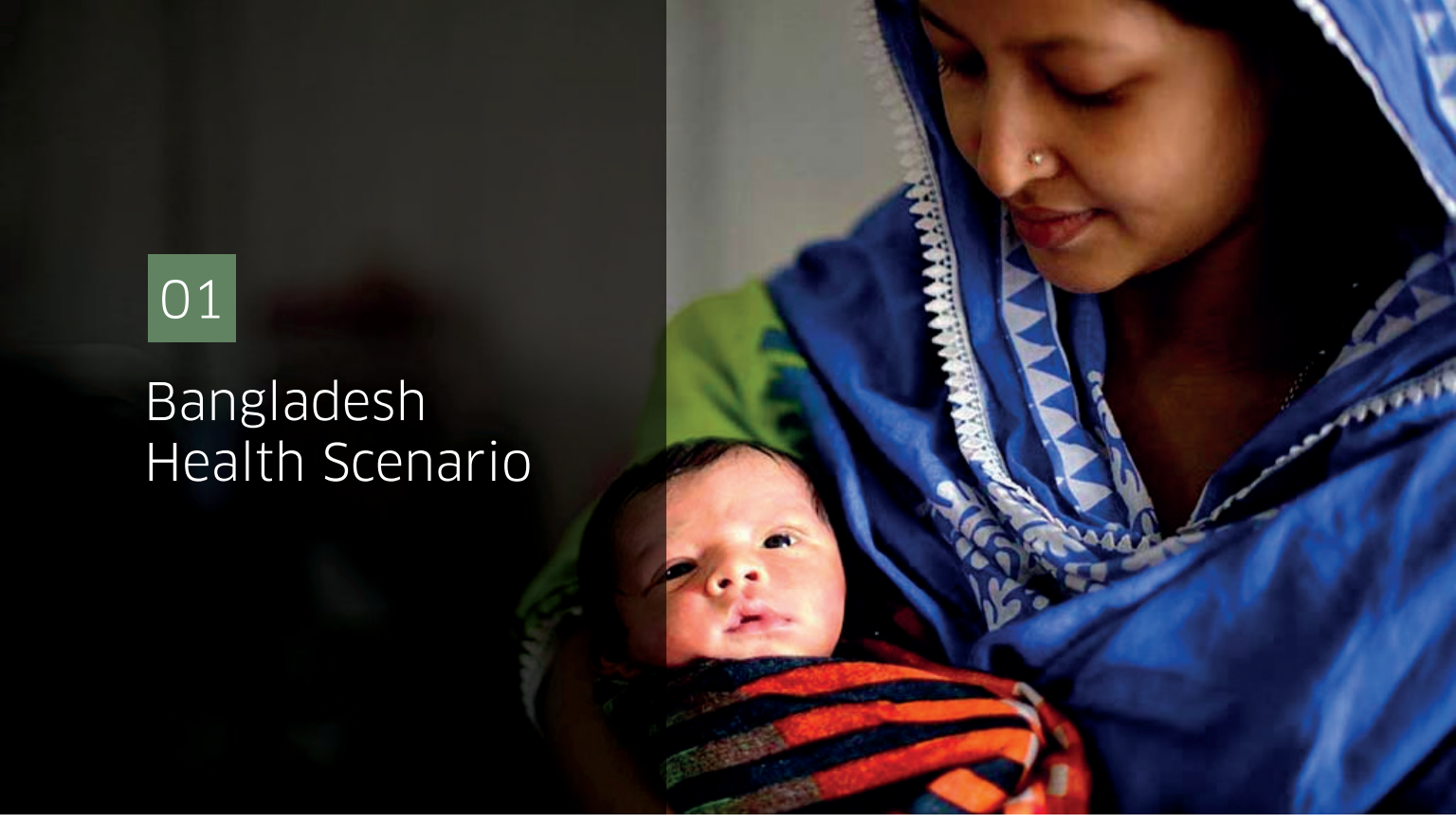
# Introduction

Bangladesh is providing healthcare to over 160 million people. Even with limited resources, the healthcare network and services have been notably expanding. Bangladesh has successfully fulfilled the targets of the health-related Millennium Development Goals (MDGs). The next target for Bangladesh is to achieve the health-related Sustainable Development Goals (SDG). To achieve the SDGs, there needs to be coordinated and relentless effort from all stakeholders and health service providers at the grassroots level.

The ongoing sector-wide Health, Population and Nutrition Sector Programme (HPNSP) has been formulated to achieve the targets of the health-related Sustainable Development Goals (SDGs) by 2030. The SDGs have presented the country with both opportunities and challenges. By taking up the challenge, Bangladesh is investing its best efforts in the health sector, under the leadership of the Honorable Prime Minister Sheikh Hasina. Guided by HPM Sheikh Hasina's vision to improve the health sector, focus is being brought to the health service delivery from the tertiary hospitals to the community clinic level.

This publication reflects the commitments, policies, and efforts for improving the health situation of the country. It also highlights the challenges faced by the healthcare sector. Over the last few years, Bangladesh has made tremendous progress in the health sector. These achievements are the results of the smart planning, thorough implementation, robust monitoring and evaluation of the latest health interventions. Bangladesh has become a role model for other developing countries for achieving the MDGs. Its efforts have been recognized at various international platforms.



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# Bangladesh Health Scenario

According to Sample Vital Registration System (SVRS) 2017 survey by Bangladesh Bureau of Statistics (BBS), child related indicators, namely, under-5 mortality rate (U5MR) (31 per thousand live births) and neo natal mortality rate (NMR) (17 per thousand live births) have already surpassed or reached their 2020 milestone targets. Some of the women focused targets - such as number of medically-trained care providers during the child birth, proportion of currently married women who use modern contraceptive method - are close to reaching their targets in 2020. The number of births attended by skilled personnel have increased from 9.5% in 1994 to 42.1% in 2014 and further to 50% in 2016. Bangladesh has remained a low HIV/AIDS incidence country.

The challenges in the sector are ample. Bangladesh is one of the top 30 Tuberculosis (TB) epidemic countries in the world. It is also one of the major malaria endemic countries in the region and one of the top 10 countries in the world with high prevalence of tobacco use. Since 1998 the healthcare sector has advanced a programmatic way. Currently, the fourth Health, Population and Nutrition Sector Program (HPNSP) (2017-22) is being implemented. The program comprises of three components, namely: governance and stewardship of the sector, strong health systems, and, quality health services to achieve health and nutrition targets of the SDGs. The health sector faces considerable challenges of increasing access to, improving quality of and achieving equity in healthcare services. There is also increasing challenges of noncommunicable diseases (NCDs), increasing incidence of various injuries, drowning, ageing and geriatric diseases, spread of infectious diseases, health effects of geo-climatic disasters and arsenicosis.

*National Social Security Strategy, 2015 has been outlined with the principles of "leave no one behind" and "inclusive development"*

## Key Indicators and Targets by Population and Nutrition Sector Programme HNSP

| | Indicators | Targets by 2020 | Targets by 2022 |
|---|---|---|---|
|  | Total fertility rate (children per woman) | **2.13** World Bank 2015 | **2.0** |
|  | Under-5 mortality rate (per 1,000 live births) | **46** BDHS 2014 | **37** |
|  | Infant mortality rate (per 1,000 live births) | **38** BDHS 2014 | **20** |
|  | Maternal mortality ratio (per 100,000 live births) | **176** World Bank 2015 | **105** |
|  | Proportion of underweight among under-five children (%) | **32.6** BDHS 2014 | **20** |
|  | Proportion of stunting among under-five children (%) | **36.19** BDHS 2014 | **25** |
|  | Proportion of births attended medically-trained care providers (%) | **42.1** BDHS 2014 | **65** |
|  | Contraceptive prevalence rate (%) | **62.4** BDHS 2014 | **75** |
|  | Proportion of children fully-vaccinated by 12 months (%) | **78** BDHS 2014 | **75** |
|  | Proportion of births in health facilities by wealth quintile (ratio of the lowest and the highest quintile) | **15: 69.5** BDHS 2014 | **1: 3.5** |
|  | TB case detection rate (%) | **53** GTR 2014 | **75** |

## Health Status

### Coverage of vitamin A capsule

| 86.1% | 91.3% | 37.8% |
|---|---|---|
| Infant (6-11 months) | Children (12-59 months) | Postpartum women |

Expanded Programme on Immunization - Coverage Evaluation Survey 2016

### Life-expectancy at birth **72.3 years**

Bangladesh Bureau of Statistics (BBS) 2018

### Budget allocation for Ministry of Health and Family Welfare, FY 2020

**US$ 1.45 Billion**

## HIV/AIDS

| | |
|---|---|
| Antiretroviral treatment (ART) coverage among adults needing ART in 2017 | 70.03% |
| HIV prevalence among key populations in 2017 | Less than 1% |
| New HIV infection reported in 2017 | 865 |
| Number of ART recipients up to August 2018 | 3,265 |
| People living with HIV (PLHIV) in 2017 | 5,586 |
| Mortality rate among HIV+ve TB patients/100,000 population | 0.11 *WHO 2015* |

# International Recognitions and Awards

- IPS International Achievement Award for the care and aid to the forcibly displaced citizens of Myanmar in 2018.

- Special Distinction Award for Leadership for the care and aid to the forcibly displaced citizens of Myanmar in 2018.

- Prime Minister Sheikh Hasina received the 'South-South Award' in 2013 for her government's achievement in alleviating poverty

- Access to Information (a2i) Programme, a flagship initiative of the Digital Bangladesh agenda, won two international awards for initiatives in the fields of service aggregation and digital health innovations: the APICTA Award at Guangzhou, China in 2018.

- A2i's digital health innovation - "Telemedicine project" - won the prize under Telemedicine Category at the 3rd Commonwealth Digital Health Awards 2018 at Sri Lanka.

- United Nations award in 2010 for reducing child mortality rate by nearly two-thirds.

- Prime Minister Sheikh Hasina received the Global Health and Children's Award for her contribution to develop Bangladesh's health sector by using the Information Communication Technology (ICT) in 2011.

- Global Alliance of Vaccines and Immunization (GAVI) Award received in 2012 for reducing the number of un-immunized children by 52%, along with the best immunization performance among six large populous countries.

- UN Food and Agriculture Organization (FAO) awarded the prestigious CERES' medal to Prime Minister Sheikh Hasina in recognition to her fight against hunger in 1999.

# Factors behind the Successes

- Establishment of 13,300+ community clinics
- Establishment of a number of new general and specialized hospitals
- 11,000 new public hospital beds
- Establishment of a bone marrow transplant center in Dhaka
- Expansion of intensive care units, and angiograms and angioplasty services to all medical college hospitals
- Expansion of kidney dialysis services to many medical college district hospitals
- Establishment of trauma centers along busy highways
- Expansion of burn units in district hospitals
- Establishment of children's hospitals in every region

- 999 National Emergency Hotline established
- Establishment of a large multidisciplinary hospital in each city zone
- Addition of several hundred new ambulances including boat ambulances
- Expansion of cardiac surgeries in several hospitals
- Focus on care for emergency patience in public and private hospitals
- Promotion of private hospitals and diagnostic centers
- Encouragement for public-private partnership in healthcare
- Establishment of a participatory 24/7 health call center 16263 for free medical consultation, ambulance reservation and providing health information services.

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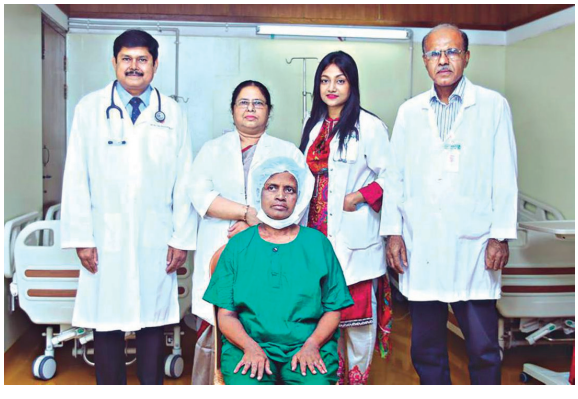
# Success Stories

## First Successful Liver transplant



The first successful liver transplant surgery of Bangladesh took place at the Bangabandhu Sheikh Mujib Medical University (BSMMU) in 2019. The surgery was conducted free of cost on a 20-year-old youth who had been diagnosed with Liver Cirrhosis in 2017. The transplant is a milestone for the health service community of the country.

## Humanitarian Aid

Now famous as the “tree man”, Abul Bajandar received full financial support from the government for the treatment of epidermodysplasia verruciformis, an extremely rare disease.

Conjoint twins Safura-Tahura were separated through a series of complicated surgical procedure which was fully funded and supported by the GOB.

11-year-old girl Muktamoni from Kamarbaisa village in Satkhira was treated for her atypical presentation of hemangioma under the government’s support.

## Steps to Prevent Rabies

Rabies is a fatal viral mortal disease. About 90% of rabies is caused by dogs. Euthanizing dogs is an unsustainable practice, because it will cause ecological imbalance. According to the Health and Family Welfare Ministry, Bangladesh will be a rabies-free country by 2022 as a result of the government's disease-prevention vaccine campaign for dogs. Under the program, over 1.2 million dogs were given vaccine across the country.

## Golden Era in Pharmaceutical Industries

Unlike many neighboring countries, Bangladesh indigenously produces 97% of all domestically consumed drugs. Through various market and policy mechanisms, the drugs are made affordable to the people. The pharmaceutical sector's export annual revenue rose by 38.42% to over $70 million in the 2018-2019.

In 2019 the Essential Drugs Company Limited, a state-owned pharmaceuticals company, has set up a new plant for $83 million to primarily produce tuberculosis (TB) vaccine.

## Community Clinics

*"Bangladesh is doing excellent job in providing healthcare to poor people, especially women and children. I want to showcase your exemplary success stories to other countries"*

Ban Ki-moon

Ex United Nations Secretary General during Mobarakpur Community Clinic visit in Moulvibazar district of Bangladesh, 2011.

- 1 Community Clinic for every 6000 people
- 16,438 community clinic and union health centers
- 85% of the rural population pursue health services from the community clinics
- 80% patients are women and children
- 460 million visits between 2009-2015
- One-stop-service outlets for health, family planning and nutrition
- Limited curative care, screening of Non-communicable disease (NCD)-hypertension and diabetes provided
- Emergency patients treated and referral to advanced facilities provided

The community clinics are playing a pivotal role at the grassroots level. To address gaps in the healthcare system, the Government of Bangladesh first planned to establish community clinics (CCs) in 1996. A CC is the lowest tier health facility at primary level established throughout the country including very hard-to-reach and isolated areas. The CC initiative was mend to extend primary health care to the doorsteps of the villagers all over the country. The CC initiative is a unique extension of primary health care services to the doorsteps of rural people. It was the brain child of Honourable Prime Minister Sheikh Hasina. The initiative has become an integral part of the health system, where millions are getting healthcare services during the last decade.

The CC initiative is a unique example of Public-Private Partnership in Bangladesh. All the CCs have been constructed on community donated land while construction, medicine, service providers, logistics and other inputs are from the government. The management of CCs is through a community group jointly formed by the local community and the government. The community owns the CC, and it plays an active role in the overall improvement of the CC. People are usually satisfied with the services at the CC, because it is a one-stop service outlet for health, family planning and nutrition. CC is the flagship programme of the Awami League-led government.

At present there are 16,438 CCs across Bangladesh. From 2009 to 2015, 460 million visits were made to the CCs; of which 9 million were emergency and complicated cases which were referred for advanced facilities. Among the service seekers about 80% are women and children. The government medical officers are periodically visiting and providing services to the complicated cases at CCs. All the CCs have been equipped with laptop and internet connection for better reporting purposes.

## World's Largest Burn and Plastic Surgery Institute

*"I believe it's possible to provide world-class treatment in the country. The doctors of my country are brilliant enough. Opportunities have to be created for them. Advanced facilities have to be ensured for them."*

HPM Sheikh Hasina

Every year, about 600,000 people in Bangladesh suffer burn injuries. The majority of the injuries occurring at home. The hospital burn units are constantly overflowing with patients. However Bangladesh lacked the medical facilities and expertise to treat these patients. In order to address this problem, the government constructed the $65 million Sheikh Hasina National Burn and Plastic Surgery Institute in the capital in 2016. The institute is now open to public for treatment as well as for specialized training for treating burn patients.

A multidisciplinary team from Singapore General Hospital provided training - to 300 specialists and 10 hospital leaders - on reconstructive surgery, surgical wound managements for massive burns and rehabilitation. The training was extended to 900 nurses over a period of three years. The aims of this collaboration are to help Bangladesh create a more systematic training approach, and to help nurses and allied health workers to take on expanded roles.

## Initiatives to Strengthen Medical Service

- 30 types of medicines provided at free of cost
- Tele-medicine service has been launched in 43 hospitals for round-the-clock medical service at home
- 30,000 satellite clinics for child and maternal healthcare
- Health Call Centre: 24/7 health call center for free medical consultation; ambulance reservation and providing health information services
- 103 service centers for disabled persons, serving 500,000 children with autism
- Nationwide community-based skilled birth attendant (CSBA) training programs
- Expansion of cardiac surgeries in several hospitals
- Strengthened care for emergency parents in public hospitals and private hospitals
- Promotion of private hospitals
- Encouragement of public-private partnerships in healthcare
- Addition of several hundred new ambulances including boat ambulances
- Provision of free medical services for freedom fighters and their families

## Other Notable Successes

*97% of medicine demands are met by local pharmaceutical industries*

*Free of cost primary health care is inclusive of health screening*

*Bangladesh has the world's largest and the most advanced District Health Information System (DHIS2) software*

## Extensive Healthcare Network

*70,000 Community Health Workers engaged in domiciliary service*

*19,000 daycare health facilities including community clinics and union health and family welfare centres*

*3,000 midwife posts created*

*Courses have been introduced for midwifery*

| Type of Health Institutes | No. of health institutes | No. of seats |
|---|---|---|
| Medical college | 42 | 4,106 |
| Dental college | 19 | 977 |
| Nursing college and institute | 59 | 3,520 |
| Medical Assistant Training School | 171 | 10,166 |
| Institute of Health Technology | 54 | 4,035 |
| **Total** | **345** | **22,804** |

## Non-Communicable Diseases

In the Health, Population and Nutrition Sector Development Program 2011-2016, control of non-communicable diseases is one of the topmost priority areas of healthcare in the country. The government provides both free and subsidized treatment for non-communicable diseases through the following the mentionable institutions:

### National Institute of Cardiovascular Disease

In 2015, a total of 3,452 coronary angiographies, 99 cardiac, 112 other (peripheral/renal) angiographies and 3,423 other procedures were done. A total of 928 open-heart surgeries, 31 closed-heart surgeries, and 1,861 vascular surgeries were also performed.

### National Centre for Control of Rheumatic Fever and Heart Diseases

There were 27,247 outdoor visits in 2015. 49.2% of the treated patients were senior citizens.

### National Institute of Kidney Diseases and Urology

In 2015, almost 86,000 patients were treated during both indoor and outdoor visits.

### National Institute of Cancer Research and Hospital

It is the only tertiary-level government cancer institute. It offers a wide range of low cost or free-of-charge cancer-related services. There are 23 full-fledged cancer treatment departments collaboratively working from prevention to cure, from diagnosis to research, and from surgery to rehabilitation. In 2015, the NICRH provided services to 174,037 outdoor, 4,479 emergencies, and 7,285 indoor patients.

### National Institute of Mental Health and Research

During 2015, the National Institute of Mental Health and Research (NIMHR) provided services to 42,703 outdoor patients, 2,501 emergency patients, and 3,085 indoor patients.

## ICT in Healthcare Development

The e-Health initiative in Bangladesh began in 1998 when the Ministry of Health and Family Welfare (MOHFW) undertook the Health and Population Sector Program (HPSP) to enhance implementation efficiency. e-Health is being given special emphasis due to the Digital Bangladesh campaign of the present government. E-Health gives special preference to delivery of health services to citizens through ICT. In 2011, the Government of Bangladesh approved the 5-year long Health, Population and Nutrition Sector Development Program (HPNSDP) 2011-2016. The HPNSDP 2011-2016 comprises of 32 operational plans, one of which is the e-Health initiative. The government's strategic policy guidelines for 'Digital Bangladesh' has been broadly applauded by the national and international experts. One of the policy objectives clearly highlights that "Quality healthcare will be provided to all citizens through innovative application of ICT".

### e-Health Initiatives in Bangladesh

• In 2009, Management Information System (MIS) at the Directorate General of Health Services (DGHS) established the Internet connectivity across all health points, including at grassroot level. mHealth (Health Service through Mobile Phone) was also established in each of all district and sub-district hospitals. mHealth has been provided a mobile phone to act as a local call center for delivering medical advice on 24/7 basis. It is primarily for the poor people living in rural areas, to get medical advice.

• In 2009, Bangladesh established a Geographical Information System (GIS) for mapping of health facilities and services. Currently, each divisional and district health office has been provided with a GIS device called global positioning system

(GPS). The system is helping with disease surveillance and service availability mapping.

• In 2010, Pregnancy Care Advice through SMS was launched with the support of USAID. This service contributed to the achievement of MDG (Millennium Development Goal) 4 and 5 by improving neonatal and maternal healthcare.

• The telemedicine service in eight hospitals was inaugurated in 2011. Currently there are 29 telemedicine centers in operation. The Access to Information (a2i), under the Prime Minister's Office, operates Union Information and Service Centers (UISCs) in 4,547 unions. The telemedicine service is now one of the most popular value-added services respective UISCs.

• The telemedicine system installed at CRP (Centre for the Rehabilitation of the Paralyzed) in 1999 was the first of its kind in Bangladesh. For capacity building and better service provision, the CRP has access to specialists and consultants at the prestigious Royal Hospital in Haslar, UK.

• Display boards at hospitals, describing how to send complaints by SMS for improving service, were added in 800 public hospitals. Patients and visitors can send SMS if they are not satisfied with the service. These SMS come to a web portal, where assigned staffs oversee the complaints.

• A draft of the Medical Biotechnology (MBT) Law has been prepared to further strengthen medical biotechnology laboratories in medical colleges of Bangladesh. Medical biotechnology is often termed as the technology of the future. It applies the techniques of genetic engineering to modify biological organisms.

• Making a permanent online Electronic Health Records (EHR) of all citizens of Bangladesh is in progress. The goal is to maintain integrated health record for a patient. EHR will enable care providers to improve their service quality. The project targets the rural citizens, who represent 76% of the country's population.

• A software consortium comprising of both local and non-local IT houses is now engaged in developing an integrated national e-Health Enterprise Architecture (eHEA). The data collected from 120 million rural citizens, using machine readable paper forms are now being digitized in searchable database format. These data, which comprise basic health-records of the citizens, will make the foundation of future health records.

• The Ministry of Health and Family welfare in Bangladesh is jointly planning, with the World Bank, to automate over 300 public hospitals. One government clinic (Bangladesh Secretariat Clinic) has already been transformed into an automated system. In 2012, three hospitals were selected for automation. These hospitals are National Institute of Kidney Diseases and Urology (NIKDU), Government Employees' Hospital, and Azimpur Maternity Hospital. The government plans to gradually automate all hospitals.

• In 2015, Ministry of Health and Family Welfare has established the largest one-stop integrated National Health Call Center, known as "Shastho Batayon 16263". The service, known as the National Health Helpline, allows people from all over the country to get heath service 24/7 by dialing the short code 16263. Over 1.2 million helpline calls were received in 2016 and 2017.

## Key services of Shastho Batayon 16263 include:


Doctors' advice and treatment


Health information


Ambulance information


Health complaints management


Emergency and accident information

# 03 Heath Progress and Sustainable Development Goals (SDG)

## SDG 3: Ensure healthy lives and promote wellbeing for all at all ages

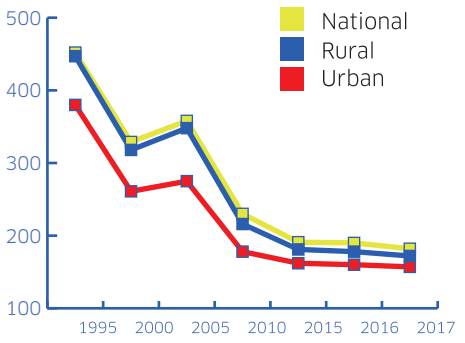
The SDG 3 aspires to ensure health and well-being for all at all ages by improving maternal and child health. This includes ending the epidemics of major communicable diseases; reducing non-communicable and mental diseases and ensuring access to reproductive healthcare services. It also intends to reduce behavioral and environmental health risk factors. These objectives should be achieved through providing universal health coverage; ensuring access to safe, affordable and effective medicines and vaccines for all. In addition, the capacity of developing countries for early warning, risk reduction and management of national and global risks will need to be enhanced.

In Bangladesh, significant progress has been made during 2000-2015 period in various public-health indicators including in reducing the under-five mortality rate, the maternal mortality rate, the burden of communicable diseases, and in increasing the life expectancy at birth. Despite the progress, challenges are immense. For example, in 2015 more than six million children died before their fifth birthday. This translates into an under-five mortality rate of 42 deaths per 1000 live births.

### Indicator 3.1.1: maternal mortality ratio (per 100,000 live births)

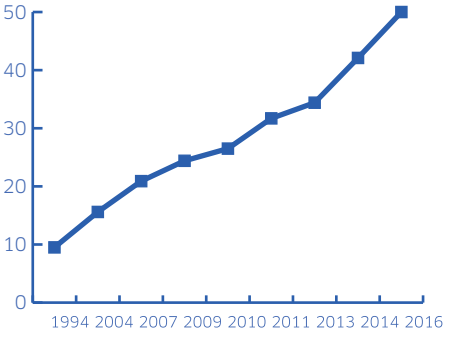
The maternal mortality ratio is the number of women who die from any pregnancy or child birth related cause. It is an important mortality index which accounts for mothers who are exposed to the risk of death during child birth. The maternal mortality ratio in Bangladesh has been on the decline since 1995. In recent years, the gap between rural and urban maternal mortality rates has narrowed significantly due to improved access to maternal healthcare.

## Maternal Mortality Ratio




Source: BBS, SVRS

## Births Attended by Skilled Health Personnel (%), 1994-2016

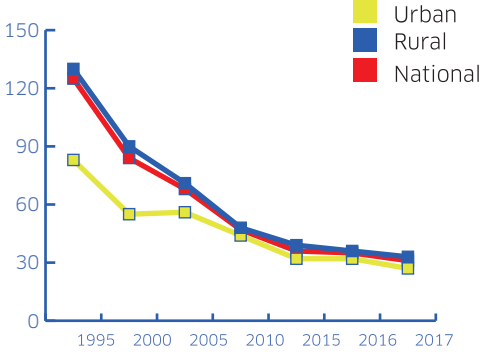



Source: NIPORT, BDHS, Bangladesh Maternal Mortality and Health Care Survey 2016

## Indicator 3.1.2: proportion of births attended by skilled health personnel

Ensuring safe delivery attendance by skilled personnel is critical to reduce maternal mortality and infant mortality rates. The number of births attended by skilled health personnel has increased from 9.5% in 1994 to 53% in 2017. It is estimated that the proportion of births attended by skilled health personnel will increase to 65.7% in 2020. Improving maternal health through medically-trained personnel remains a challenge for Bangladesh. Moreover, the rural-urban divide, along with other socio-economic (such as education and income) divides, still remain prevalent in accessing services.

## Indicator 3.2.1: Under-five mortality rate (per 1,000 live births)

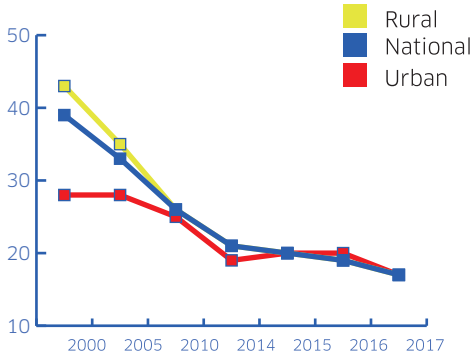



The under 5 mortality rate (U5MR) is the number of deaths of children under the age of five years for every 1000 live births. In Bangladesh, there has been a persistent decline in U5MR from 1995 to 2017. Sharp discrepancy between rural and urban rates existed in the early years, but the rates converged over the years, marking accelerated improvement in the rural areas. The 2020 target for U5MR (34) has already been achieved in 2017.

## Indicator 3.2.2: Neonatal mortality rate (per 1,000 live births)

The neonatal mortality rate (NMR) is the number of deaths of infants under the age of one month for every 1000 live births in a year. There has been consistent decline in the mortality rate during the 2000-2015 period. Rural-urban discrepancy has vanished. This marks a significant improvement for the access to infant-healthcare. The NMR is expected to decline to about 13 in 2020, provided the current downward trend continues.

## Neonatal mortality rate (per 1000 live births)




Source: BBS, SVRS.

Bangladesh is a densely populated country where communicable diseases are significant. Emerging diseases such as HIV/AIDS and dengue and re-emerging diseases such as tuberculosis, malaria, leprosy, filariasis, and kalaazar are ever prevalent. These diseases pose a holistic challenge for combatting communicable and non-communicable diseases.

## Indicator 3.3.1: Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations

Bangladesh continues to be a low HIV/AIDS prevalence country. In 2016, the incidence of HIV stood at 0.04% at the national level. In 2017, the incidence of HIV/AIDS declined to <0.01 (UNAIDS 2017). The low prevalence is due to the preventive efforts - targeting the high-risk population – targeting drug users, female sex workers in towns bordering India, unprotected sex partners and returned international migrant workers.

## Indicator 3.3.2: Tuberculosis incidence per 100,000 population

Bangladesh continues its battle against tuberculosis, an infectious disease that can be fatal if not treated properly. According to WHO Global TB Report 2016, Bangladesh is one of the world's top 30 TB infested countries. The annual occurrence of new TB cases was 362,000. Another important challenge is Multi Drug Resistance Tuberculosis (MDR TB). It is estimated that there are about 9,700 MDR cases per year. Spread of TB is high among temporary migrant workers living in overcrowded and poorly ventilated shacks. The lack of awareness about TB infection and the freely available treatment (DOTS) is a major problem. The is also lack of access to good quality diagnostic services.

An estimated incidence rate for all forms of tuberculosis in 2015 was 225 per 100,000 population. An estimated 45 per 100,000 people died of tuberculosis in the same year (NTP, Annual Report 2017). The National TB Programme (NTP) has been framed to impose basic control through reasonable case detection and excellent treatment outcomes. Bangladesh is the first country in the region to introduce shorter treatment regimen for MDR-TB. The NTP is already seeing high MDR-TB cure rate of 75%. National Strategic Plan for TB Control for 2018-2022 is being updated. Free of cost TB control services have been made available in general hospitals throughout the country.

## Indicator 3.3.3: Malaria incidence per 1,000 population

Bangladesh has been one of the major malaria endemic countries in South Asia. Malaria is a major public health concern in the country. Malaria incidence per 1000 population stood at 4.3 in 2015 (MCP 2015). The government interventions for malaria eradication have resulted in decline in incidence. The interventions have largely focused on endemic areas of northeast and southeast districts. The results of the regional interventions are yet to be seen.

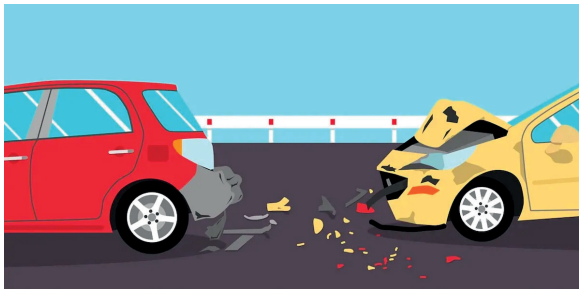
## Indicator 3.4.1: Mortality rate attributed to (between 30 and 70 years of age) cardiovascular disease, cancer, diabetes or chronic respiratory disease

Disease burden from non-communicable diseases (NCDs) has been rising rapidly in Bangladesh. The factors for rise have been identified to be ageing, food habits, environmental degradation and physical inactivity. Cardiovascular diseases, cancer, diabetes and chronic respiratory diseases are the main causes of NCDs. Probability of dying between 30 and 70 years is defined as the percentage of 30-year-old people who would die before their 70th birthday from NCDs. This rate declined from 21.7 % in 2015 to 21.6 % in 2016 (WHO, 2016).

## Indicator 3.4.2: Suicide mortality rate (per 100,000 population)

The suicide mortality rate (per 100,000 population) is defined as the number of suicide deaths in a year divided by the mid-year population for the same year and multiplied by 100,000. Suicide is the most common cause of unnatural death in Bangladesh. The proportion of women having tendency to commit suicide is recorded to be higher. While mental health disorders in the form of depression and anxiety are common causes of suicide, there are proximate causes of suicide for women are as physical and domestic violence. Suicide mortality rate has been declining from 7 per 100,000 population in 2000 to 5.5 in 2015.

## Indicator 3.6.1: Death rate due to road traffic injuries (per 100,000 population)



Death rate due to road traffic injuries is defined as the number of road traffic fatal injury deaths per 100.000 population. Road traffic injuries (RTIs) is a leading cause of death world over. Urbanization and rapid motorization have resulted in increasing RTIs causing death, illness and disability in Bangladesh. RTIs impose significant economic burden on individuals, families and the nation as a whole. In 2015 death rate due to RTIs has been estimated as 2.49 per 100,000 population (PSD, 2015).

## Indicator 3.7.1: Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods

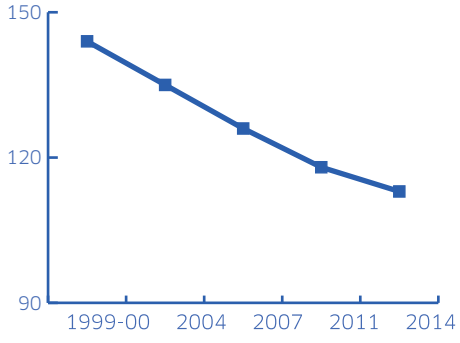
Meeting demand for family planning with modern methods enable women and their partners to decide the number and spacing of children along with the investment in children. It also contributes to maternal and child health by preventing unwanted pregnancies. If modern methods satisfy 75% of the demand, it is termed as high; while 50% or less is termed as low. The percentage of women of reproductive age (15-49 years), who have their need for family planning with modern methods, stood at 72.6% in the baseline year of 2014.

## Indicator 3.7.2: Adolescent birth rate (aged 10-14 years; aged 15-19 years) per 1,000 women in that age group

The adolescent birth rate is defined as the number of live births born to women aged 15-19 years during a given year divided by the population of women in the same age group. Women who become pregnant and give birth in early years of their reproductive life are subject to many complications during pregnancy and child birth with risk of death. Children born to adolescent mothers are likely to be vulnerable. The consequences following child birth have lifelong effects. A woman's opportunity for socio-economic development is restricted because work life balance becomes challenging.

In Bangladesh, adolescent birth rate per 1000 women in 15-19 age group has been declining from 144 in 1999-00 to 113 in 2014. Since the target has not yet been set, using Bangladesh Demographic Health Survey (BDHS) data progress is yet to be assessed. With the expansion of women's education, increased labour force participation of women, and delayed marriage of women, the age specific birth rate will continue to decline.

## Adolescent (aged 15-19 years) birth rate per 1000 women in that age group




Source: NIPORT, BDHS, Various years

## Indicator 3.9.1: Mortality rate attributed to household and ambient air pollution (per 100,000 population)

Mortality rates are calculated by dividing the number of deaths by the total population multiplied by 100,000 which stood. The mortality resulting from exposure to ambient (outdoor) and indoor (household) air pollution is rising in Bangladesh. More data points are needed to set credible target in order to progress against the target.

## Indicator 3.9.2: Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (per 100,000 population)

The mortality rate attributed to exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services per 100,000 population is estimated to be 5.96. There is only one data point for this indicator. Inadequate water, sanitation, and hygiene cause death which can be prevented by improved practices. Bangladesh has made optimal progress in coverage of water and sanitation services. However, hygiene services warrant much more attention. More data points are needed to set target in order to progress against the target.

## Indicator 3.9.3: Mortality rate attributed to unintentional poisoning air pollution (per 100,000 population)

Deaths from unintentional poisonings give an indication of the lack of proper management of pollution and hazardous chemicals, and lack of an effective health system, in a country. These deaths can be prevented with adequate management. The mortality rate attributed to unintentional poisoning per 100,000 population is estimated at 0.3 in 2015 (WHO, 2017). More data points are needed to set target in order to progress against the target.

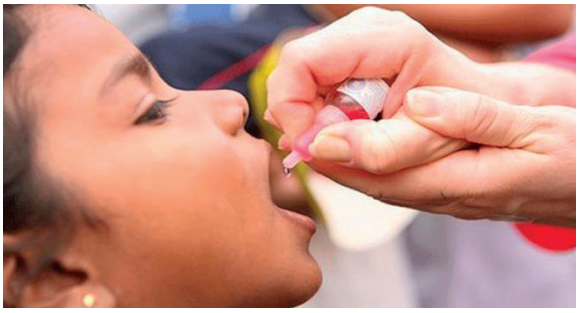
## Indicator 3.a.1: Age-standardized prevalence of current tobacco use among persons aged 15 years and older

Tobacco use is a major cause of illness and death from non-communicable diseases (NCDs) in developing countries. Tobacco use entails use of both smoked tobacco and/or smokeless tobacco products. Bangladesh is one of the top 10 countries in the world with high prevalence of current tobacco use. Bangladesh was the first developing country to sign the WHO Framework Convention on Tobacco Control (WHO FCTC) in 2003.

The age-standardized prevalence of tobacco usage, among persons aged 15 years and older, is 58 for male and 29 for female in 2015 (WHO, 2017). According to Global Adult Tobacco Survey (GATS) data, the age-standardized prevalence of current tobacco usage among persons aged 15 years and older has declined from 43.3% in 2009 to 35.3% in 2017. Bangladesh has been using different measures including tobacco tax and awareness creation to reduce tobacco use in the country. The country aims to be tobacco free by 2040.

## Indicator 3.b.1: Proportion of the target population covered by all vaccines included in their national program

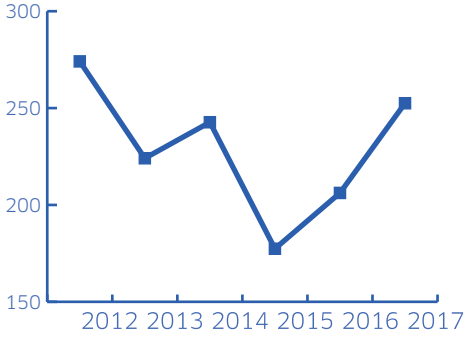
With the implementation of the Expanded Programme on Immunization (EPI) of the World Health Organization, Bangladesh has developed an effective national immunization program starting from 1979. The implementation of the program received heavy emphasis in 1985, when Bangladesh made its commitment at the United Nations to reach universal child immunization by 1990. The program consists of vaccination against six childhood diseases: polio, measles, pertussis, tetanus, diphtheria and tuberculosis. The proportion of the population with access to affordable medicines and vaccines on a sustainable basis stood at 78% in 2014 (BDHS, 2014). According to Health Services Division (HSD) data, the proportion of vaccinated children aged less than 12 months, and the proportion of vaccinated children aged 23 months, stood at 82.3% and 86.8% respectively.



## Indicator 3.b.2: Total net official development assistance to medical research and basic health sectors

Total net official development assistance shows the annual fluctuations with an upward trend since 2015. Total net official development assistance to medical research and basic health sectors stood at $274.1 million in 2012, which has declined to US$ 252.5 million in 2017.

## Net official development assistance to medical research and basic health care, 2012-2017 (Million US$)




Source: Economic Relations Division

## Indicator 3.c.1: Health worker density (per 10,000 population) and distribution (physician: nurse: health technologist)

Resources for Health (HRH) is a key component of the health system. The success of the health system to deliver quality health services depends largely on the quality of health workers. Among the health workers are the physicians, the nursing and midwifery personnel, the dentistry personnel, and the pharmaceutical personnel. Bangladesh suffers from a shortage and mal-distribution of health workers. Health worker density per 10,000 population stood at 7.4 in 2016. Physician, nurse and health technologist are distributed in the proportion 1: 0.5: 0.2 indicating imbalance in the composition of the workforce. The density has since increased to 8.3 per 10,000 population and the distribution is 1:0.56:0.40 (HRD unit, HRH country profile, 2017, MOHFW).

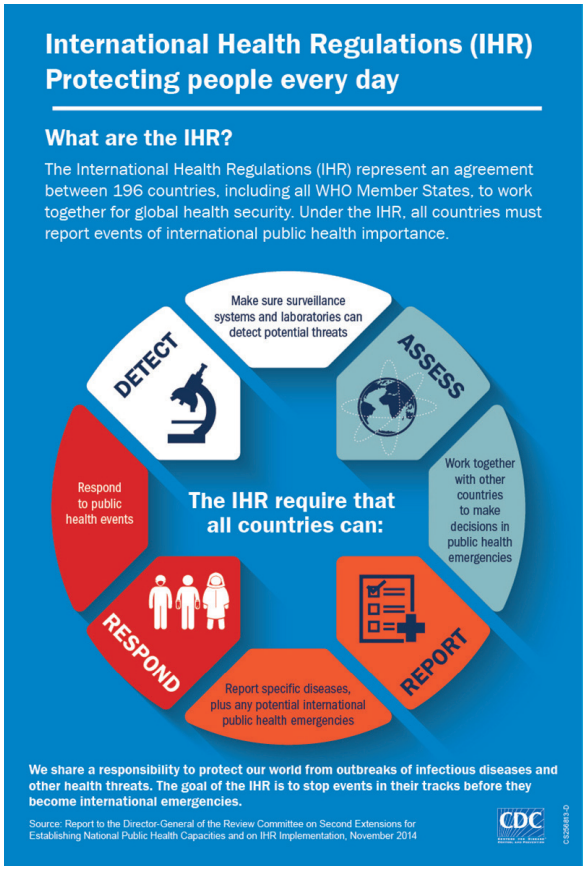
## Indicator 3.d.1: International Health Regulations (IHR) capacity and health emergency preparedness

The International Health Regulations (IHR) 2005 define core capacity requirements for each of the 194 countries that are party to the IHR. IHR is designed to ensure that all countries have the ability to detect, assess, notify and report events; and respond to public health risks and emergencies of national and international concern.

The 13 core capacities are:

(1) National legislation, policy, and financing;
(2) Coordination and national focal point communications;
(3) Surveillance;
(4) Response;
(5) Preparedness;
(6) Risk communications;
(7) Human resources;
(8) Laboratory;
(9) Points of entry;
(10) Zoonotic events;
(11) Food safety;
(12) Chemical events; and
(13) Radionuclear emergencies.

The indicator is measured as the percentage of attributes of 13 core capacities that have been attained at a specific point in time. The value of the indicator stood at 87.5 % in 2016 (WHO, 2016) and Bangladesh targets to have all core requirements to be in place by 2030.



## Government's efforts to achieve SDG 3

The Government has been taking a sector-wide approach in the health sector of the country. So far three programs have been implemented and the 4th program, the "Health, Population and Nutrition Sector Program (HPNSP)", is being implemented from 2017 to 2022. The 4th HPNSP is the first of the three successive programs that would be implemented by 2030 to achieve health, population and nutrition sector targets and the health-related SDGs.

The current program has three components:

**Governance And Stewardship Of The Sector**

The first component will address issues regarding regulation of drug administration and quality drug management, legal and regulatory framework, and strengthening roles of the autonomous organizations such as Bangladesh Medical and Dental Council(BMDC) and State Medical faculty of Bangladesh (SMF) including effective use of non-government and the private sector.

**Stronger Health Systems**

The second component addresses the strengthening of health systems focused on planning, budgeting, monitoring and evaluation; along with the management information system, research and development, strengthening human resources for health, procurement and supply chain management, maintenance of physical facilities, inter-sectoral coordination and financial management.

**Quality Health Services**

The third component seeks to improve access to and quality of health services in order to accelerate the achievements of health-related SDGs. This component supports the priority interventions, such as reproductive, maternal, new born child and adolescent health and family planning services, nutrition and food safety, communicable and non-communicable disease, alternative

## Approaches to Universal Health Coverage (UHC)

The 4th Health Nutrition and Population Sector Program (HNPSP) is aligned to the goal of achieving UHC by 2030. The UHC goal emphasizes on the right of every citizen to gain access to quality health care irrespective of provider of these services. The program also aims to improve by reducing wastage and increasing impact of resource use.

The Community Clinics (CCs) have been established throughout the country as the first-tier contact facility to provide primary health care (PHC), and, maternal and neonatal health (MNH) services. On average 40 patients receive service at a CC in a day.

## Provision of Essential Service Package (ESP)

The ESP represents GOB's commitment to ensure the right to health and equitable access to the most essential health services. First introduced in 1998, the scope of these services has been updated to keep up with the change in disease pattern over time. The Government has been consistently pursuing the strategy to ensure equity and quality in achieving UHC. Focus on pro-poor ESPs and provisions of primary health care through CCs have contributed to reduction of gaps in healthcare access.

## Gender, Equity, Voice and Accountability (GEVA)

GEVA is the cornerstone of the sector-wide program aimed at enhancing availability of quality service to women. GEVA is also creating a congenial environment for women and adolescent girls to receive with dignified and privacy-respected health service. Women-friendly hospitals render specialized psychosocial counselling to women survivors of violence. They also link them with legal aid services.

## Expanded Program of Immunization (EPI)

EPI is a successful activity of GOB in the development of maternal, neonatal and child health. Bangladesh has successfully held the national coverage of fully vaccinated children by one year of age at more than 80% (NIPORT, 2016). Bangladesh also considers the healthcare waste management a critical issue in the context of environmental pollution. The Government has developed a Health Care Waste Management Plan (HCWMP) to effectively address the issue.

## Road Safety

The Government has been implementing a series of road safety action plans beginning with the first "National Road Safety Strategic Action Plan 1997-1999". The current 8th action plan (2017-2020) was prepared to address the road safety issues in the Agenda 2030. To curb road accidents and to bring discipline to the road transport sector, the Cabinet bas approved a draft road transport law in 2018. The bill, will introduce tougher punishments for traffic rule violations.

04

# Important Health Sector Policies and Strategies


The Ministry of Health and Family Welfare (MoHFW) has implemented three consecutive sector programs between 1998 and 2016. The MoHFW has carefully designed the 4th sector-wide approach, the "4th Health, Population and Nutrition Sector Program" (4th HPNSP), to initiate its journey towards achieving the health-related SDGs. The 4th HPNSP's articulation and design have been linked to the 7th Five-Year Plan (FYP) of the government. Other guiding principles are drawn from the national policies on health, nutrition and population (HNP), and HNP sector-related strategies approved by the government.

Following is national policy framework of the healthcare sector:

- National Health Policy 2011
- Health, Nutrition and Population section of the 7th Five Year Plan
- National Nutrition Policy 2015
- 4th Health, Population and Nutrition Sector Program (HPNSP) 2017-2022
- Healthcare Financing Strategy 2012-2032: Expanding Social Protection for Health Towards Universal Coverage
- Bangladesh Health Workforce Strategy 2016–2021
- National Health Policy 2011

## Goal and Objectives

*To overcome the existing challenges and to create a regulatory framework, the National Health Policy 2011 was implemented. It aims at the following principles:*

01 Make necessary basic medical utilities reach people of all upazilas (sub-districts) and develop the health and nutrition status of the people.

02 Develop a proper system to ensure easy and sustained availability of health services.

03 Ensure optimum quality, acceptance, and availability of primary healthcare and governmental medical services.

04 Reduce the intensity of malnutrition among people and implement effective and integrated programs for improving nutrition status.

05 Undertake programs for reducing the rates of child and maternal mortality.

06 Adopt satisfactory measures for ensuring improved maternal and child health and install facilities for safe and hygienic child delivery.

07 Improve overall reproductive health resources and services.

08 Ensure the presence of full-time doctors, nurses, and other officers/staff, provide and maintain necessary equipment and supplies at each of the upazila health complexes and union health and family welfare centers (UHFWCs)

09 Devise necessary ways and means to make optimum usage of available opportunities in government hospitals and the health service system.

10 Formulate specific policies for medical colleges and private clinics and to introduce laws and regulations.

11 Strengthen and expedite the family planning program with the objective of attaining the target of replacement-level of fertility

12 Explore ways to make the family planning program more acceptable, easily available, and effective among the extremely poor and low-income communities.

13 Arrange special health services for the mentally-retarded, the physically-disabled and elderly population.

14 Determine ways to make family planning and health management more accountable and cost-effective by equipping it with more skilled manpower.

15 Introduce systems for treatment of all types of complicated diseases in the country and minimize the need for foreign travel for medical treatment abroad.

## 7th FIVE YEAR PLAN (7FYP): 2016 – 2020

Goals, Strategies, and Targets of the 7th Five Year Plan in the Health, Nutrition and Population Sector Bangladesh will strive to attain a number of targets on the road towards universal health coverage, consistent with the proposed major targets, under the proposed Sustainable Development Goals (SDG) framework of the UN, promoting and sustaining health and nutrition, along with containing population growth as priorities in the human development strategy. Vision 2021 aims at establishing a middle-income Bangladesh, with drastic reduction in poverty and developing conditions that allow individuals to reach and maintain the highest attainable level of health and well being. To realize that vision, the Government has set certain objectives and targets towards achieving

Programs are being promoted for ensuring good health and nutrition with concentration on reducing population growth. In order to prosecute this progress and to address areas of insufficiency, some of the specific targets for the HNP sector under the 7th FYP. Bangladeshis now trying to implement these associated policies and institutional reforms. Bangladesh is currently implementing the 4th Sector Wide Approch (SWAP) in the Health, Nutrition and Population (HNP) sector which aligns with the 7th FYP targets for achieving Universal Health Care (UHC) and SDGs by 2030.

### Universal Health Coverage (UHC) in the HNP sector. This includes the following:

Ensure access to and utilization of HNP services for every citizen of the country, with particular emphasis on the elderly, women, children, poor disadvantaged people, and those living in difficult areas. Reduce total fertility rate

Ensure adolescent and reproductive healthcare Strengthen community support and involvement to obtain better results in the implementation of programs Improve nutritional status of children and women.

Take effective measures to promote alternative medicines and improve the quality of care meet challenges of emerging, re-emerging, and non-communicable diseases, health hazards due to climate change, and emergency response to catastrophes

Enhance national capacity for the pre-service education (Skilled Birth Attendent/nursing, paramedics, midwifery), provide in-service training and better management of human resources

Improve the quality of hospitals and maternity services and to make these accessible, especially to the women, children, and the poor people of Bangladesh. This has already made great strides towards achieving these objectives.

## 4th Health, Population and Nutrition Sector Program (4th HPNSP) 2017-2022

The Ministry of Health and Family Welfare (MoHFW) is currently implementing its fourth Sector Program titled '4th Health, Population and Nutrition Sector Program (4th HPNSP)' covering a 5.5-year period between January 2017 and June 2022, at an estimated cost of US$ 14.7 billion. The 4th HPNSP is guided by Bangladesh's Vision 2021 (transforming the country from a developing country into a middle-income country), which acknowledges that improved health is a necessary and critical condition for the achievement of this vision.

05

# Bangladesh Health Sector: Key Challenges

Health sector in Bangladesh continues to grapple with the existing issues of increasing access to, improving quality of and achieving equity in healthcare services. There is also the increasing issue of non-communicable diseases (NCDs) such as diabetes, cardio-vascular diseases and cancer contributing to increasing morbidity and mortality. New challenges facing the sector include increasing incidence of injuries (including burn and acid injuries), accidents (including drowning and road traffic injuries), geriatric diseases, spread of infectious diseases (such as Hepatitis B and C), health effects of geo-climatic disasters and arsenicosis.

Against the above background, the health sector has the following broad challenges:

## Non-Communicable Disease

Adults are at high risk of non-communicable diseases due to endemic factors such as obesity, excess salt consumption, tobacco and alcohol intake, imbalanced diet and inadequate physical activities. 71% of the population is at risk of one or two of the endemic factors, while most are at risk of three or four. In Bangladesh, regular smoking, taking inadequate vegetables and fruits, inadequate physical labour, high cholesterol in blood, high blood pressure and obesity are the major reasons behind the non-communicable diseases.

Source: 'Bangladesh Non-Communicable Diseases Risk Assessment Survey-2018'

## Demographic Transition

The demographic transition is the population shift from the rural to the urban areas; the rural areas where the primary healthcare (PHC) services are better organized. Expansion of city areas up to upazila (sub-district) level, rural-urban migration and a rising urban population, pose new challenges for effective urban PHC service delivery. Absence, or paucity, of PHC service facilities in urban areas means that the disadvantaged are the worst sufferers. It is evident from the health status of urban people living in slums. The coordination between the Ministry of Health and Family Welfare (MoHFW) and the Ministry of Local Government, Rural Development and Co-operatives (MoLGRDC), for developing an effective urban health service delivery mechanism remains a challenge.

## Epidemiological Transition

Bangladesh bears double the burden from diseases because of the epidemiological transition: non-communicable diseases and urbanization. The non-communicable diseases have become the major cause of death, jointly with urbanization and an increasing aging population. The epidemiological transition has direct impact on the financial vulnerability of the patients, especially the poor. At the national level it has major long-term fiscal implications in the national budget.

## Looking Ahead

The Government has recruited doctors, nurses, community healthcare providers, and midwives. A large number of personnel including gamily welfare assistants and family welfare visitors will be recruited for better family welfare services. To improve family planning in hard-to-reach areas adequate staff will be provided. The National Strategy for Adolescent Health (2017-2030) was approved, while the National Action Plan is being prepared. Measures are being taken to create demand for family planning services among adolescent girls and newlywed couples. Measures are also being taken to bring the Ready Made Garments (RMG) workers under the family planning services.

### Overall, the health sector is faced with the following specific challenges:

01 Reducing out of pocket expenditure, in order to achieve Universal Health Care

02 Ensuring urban primary health care service delivery, especially to the poor

03 Ensuring skilled birth attendance to reduce maternal mortality ratio

04 Improving overall nutrition situation;

05 Improving service quality, standardization and accreditation for quality of care;

06 Ensuring availability of skilled human resources;

07 Developing new approaches and partnerships with the private sector;

08 Ensuring basic services for the poor;

09 Sustainable health financing and promotion of equity;

10 Developing adolescence friendly health services.

# Conclusion

Health is one of the basic human rights. Since the emergence of Bangladesh as an independent country, health has been given the utmost priority. Access and provision of adequate health services ensure human rights and dignity of the population. The Bangladesh Constitution guarantees that “health is the basic right of every citizen of the Republic”.

In the last decade, the government has played a key role in both policy development and policy implementation in the health and nutrition sector. Bangladesh's life expectancy is higher than other countries in the region; and its reduction of its stunting rate was a global success story. In addition, Bangladesh's infant mortality, under-five mortality and maternal mortality rates are also lower than other countries in the region. The vision of the 7th Five Year Plan (7FYP) by the government includes ensuring optimum nutrition and healthcare services. The 7FYP identifies the health sector as a fundamental component of human and economic development.

Bangladesh has made tremendous strides in different health indicators like survival of under-five, immunization, and tuberculosis control. Despite its resource constraints, Bangladesh has successfully evolved a pluralistic healthcare system. The healthcare system adopts healthcare technology. It also focuses on women's participation in advancing healthcare. Bangladesh's healthcare system has addressed the first generation of poverty-linked infections, nutrition deficiency, and maternity related diseases.

The Millennium Development Goals (MDGs) had a major focus on specific goals relating to health sector while the Sustainable Development Goals (SDG) encompass much broader agenda for change. SDGs have been taken into consideration in the 4th “Health, Population and Nutrition Sector Program (HPNSP)”, in order to align them with the national development agenda of Bangladesh.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