

**Background Paper on  
Health Strategy for preparation of  
7<sup>th</sup> Five Year Plan**

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## Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
AMC	Alternate Medical Care
BBS	Bangladesh Bureau of Statistics
BCC	Behaviour Change Communication
BDHS	Bangladesh Demographic and Health Survey
BIDS	Bangladesh Institute of Development Studies
BINP	Bangladesh Integrated Nutrition Programme
BMI	Body Mass Index
BMMS	Bangladesh Maternal Mortality Survey
BPP	Bangladesh Population Policy
BHW	Bangladesh Health Watch
CC	Community Clinic
CEmOC	Comprehensive Emergency Obstetrical Care
CHT	Chittagong Hill Tracts
CPR	Contraceptive Prevalence Rate
CSBA	Community Skilled Birth Attendants
DAAR	Disbursement for Accelerated Achievement of Results
DGDA	Directorate General of Drug Administration
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
DNS	Directorate of Nursing Services
DOTS	Direct Observed Treatment Short Course
DP	Development Partner
EPI	Expanded Programme on Immunization
FP	Family Planning
FWA	Family Welfare Assistant
FYP	Five Year Plan
GDP	Gross Domestic Product
GED	General Economics Division
GOB	Government of Bangladesh
HA	Health Assistant
HDC	Hill District Council
HE	Health Education
HEU	Health Economics Unit
HIV	Human Immune Deficiency Virus
HNPS	Health, Nutrition and Population Sector Programme
HPN	Health, Population and Nutrition
HPNSDP	Health, Population and Nutrition Sector Development Programme
HPSP	Health and Population Sector Programme
HRH	Human Resources for Health
HRIS	Human Resources Information System
HWF	Health Workforce

icddr,b	International Center for Diarrhoeal Diseases Research, Bangladesh
ICT	Information Communication Technology
IEDCR	Institute of Epidemiology Disease Control and Research
IRT	Independent Review Team
IUD	Intra Uterine Device
JLI	Joint Learning Initiative
LAPM	Long Acting Permanent Method
LGD	Local Government Division
MARP	Most At Risk Population
MDGs	Millennium Development Goals
MDR	Multi-Drug Resistant
MIS	Management Information System
MOCHTA	Ministry of Chittagong Hill Tracts Affairs
MOHFW	Ministry of Health and Family Welfare
MOLGRD&C	Ministry of Local Government, Rural Development and Cooperatives
MR	Menstrual Regulation
NCD	Non Communicable Disease
NGO	Non Governmental Organization
NHP	National Health Policy
NIPORT	National Institute of Population Research and Training
NNP	National Nutrition Programme
NNR	Net Reproductive Rate
NTP	National Tuberculosis Programme
PHC	Primary Health Care
PMMU	Programme Management and Monitoring Unit
PS&OM	Planning, Supply and Ownership Management
SDGs	Sustainable Development Goals
SEARO	South East Asia Regional Office
SFYP	Sixth Five Year Plan
SVRS	Sample Vital Registration Survey
SWAp	Sector Wide Approach
TB	Tuberculosis
TFR	Total Fertility Rate
TQM	Total Quality Management
UHC	Universal Health Coverage
UN	United Nations
UNDP	United Nations Development Programme
Unicef	United Nation's Children Fund
UPHCP	Urban Primary Health Care Project
US	United States
WHO	World Health Organization
\$	Dollar

## Summary

Bangladesh's aim of becoming middle-income country by 2021 demands substantial importance and investment in health as links between health and development have long been acknowledged. Universal health coverage is the potential among the upcoming Sustainable Development Goals as post MDGs agenda.

Health, population and nutrition (HPN) situation of Bangladesh is optimistic as health outcomes continue to improve as demonstrated by the progress on MDGs 1, 4, 5 and 6 with marked decline in maternal and child mortalities. Progress on reaching the MDG 1 target for underweight appears to be on-track. The country's progress in declining fertility rates, which at an aggregate level is now nearing replacement level has also been another success story. However Bangladesh remains in the midst of rapid demographic changes, epidemiological transition and confronted with double burden in nutrition. Physical location of Bangladesh makes the country vulnerable to different natural disasters almost as annual event and climate change as well.

Bangladesh Constitution in articles 15 and 18 mention State's responsibility to secure medical care improves nutrition and public health. The Vision 2021 states health pledges. The Perspective Plan 2010-2021 documents vision in health, population and nutrition. National Health Policy 2011 visions health as a recognized human right. Bangladesh Population Policy 2012 aims to build healthy, happy and prosperous Bangladesh by planned development and control of population. Draft Bangladesh National Nutrition Policy 2014 plans Bangladeshi population to achieve healthy and productive lives through desired nutrition. Bangladesh has been pursuing sector-wide approach (SWAp) in health sector since 1998 and currently implementing third SWAp. As signatories in numerous international declarations and conventions like Declaration of Alma Ata, 1978 resulting from the International Conference on Primary Health Care, International Conference on Population and Development of 1994 etc. Bangladesh is pledge bound to improvement in health care.

The HPN sector in Bangladesh evolved. Starting from the First Five Year Plan 1973-78 to the successive Plans have adopted primary health care as the key approach for the improvement of the health of Bangladeshi people. Over the time health facilities have been developed at different levels, latest being the Community Clinic in village and capacity building initiatives were also undertaken. Family planning programme was taken within government with dedicated institution, however subsequent attempts to integrate with health didn't succeed. Malaria control programme was integrated with health. Attempted with vertical BINP and NNP, nutrition initiatives are now integrated.

Amidst of good progress made in improving health outcomes Bangladesh remains one of the countries with the highest level of malnutrition among the developing countries, with children and women the most affected. Neonatal mortality appears hard nut to crack, so also skilled attendance at birth, child marriage and teenage pregnancy. However Bangladesh made good progress in immunization, HIV, TB, malaria, leprosy, filariasis and kala azar.

Main issues and challenges in service delivery include proper management of the huge network of field and facility based services at different levels including community clinics throughout the country by the MOHFW with appropriate referral system and ensuring quality; development of an effective, coordinated and synergistic public sector health care delivery system through collaboration with facilities operated by other ministries/departments than MOHFW; development of an effective beneficial private sector; delivering services in hard to reach areas adopting different strategies; consolidating the progress made in FP through tackling regional variations and rich-poor differentials in fertility, inappropriate method mix, high discontinuation rate, reduce the number of unintended and unwanted pregnancies, providing post partum, post MR and post abortion FP services; continue to push the maternal mortality rate lower with careful consideration of the existing strategies; high percentage of women who are delivering at home often without any skilled birth attendant present resulting maternal and neonatal mortalities; overcoming institutional limitations in mainstreaming nutrition service delivery and required multisectoral collaboration to tackle nutrition problems; developing and delivering a comprehensive mental health service; increase efforts on prevention of NCDs and ensure a well regulated service delivery system for their treatment without reducing efforts to tackle important communicable disease prevention and treatment interventions; tackling arsenicosis, violence (especially against women), accident, genetic and blood disorders like thalasaemia, drowning, poisoning, suicide etc.; addressing disabled – both physically and mentally through appropriate services; provisions of gender and adolescent-friendly health services; expansion of alternate medical care services; developing overall strategy for health promotion to consolidate existing efforts of BHE and others in DGHS and IEM and others in DGFP; proper engagement by the MOHFW on environmental health issues with health facility waste management; coordination between MOHFW and MOLGRD&C for developing an effective urban health service delivery with functional referral system; development of a CHT specific health system that caters the special need of CHT population and development of institutional arrangement to support (financially and technically) HDCs to operate that system together with providing appropriate tribal-friendly services through the existing health and family planning service delivery network in plain land areas of tribal population; managing emerging and re-emerging diseases together with preparedness and response in emergencies; ensuring equity, voice and accountability and right to health.

For health workforce (HWF) absence of Human Resources for Health (HRH) strategy and plan and lack of Human Resource Information System (HRIS), too many types of HWF and confrontation of problems of shortage, mal-distribution, skill-mix imbalance, negative work environment and weak knowledge base are challenges. Other challenges include fragmented information systems, limitations of routine reporting systems and not using information to make management decisions; exploration of full potential of ICT for ensuring better health system; private drug shops effectively partner with a poorly educated population to provide a self-medication option is the dominant mode of curative care, unnecessary and even harmful drugs are dispensed in less than required dosage that leads to the development of drug resistance and limited capacity of DGDA to enforce the drug control related legislation; development of a national policy on management of health care technology in which all stages of the procurement process is identified in the Planning, Supply and Ownership Management (PS&OM) model are addressed; inadequate health financing, inequity in health financing and utilization and inefficient use of existing resources in health financing; capacities of district and sub-district health managers in planning and budgeting, efficient management of human resources to retain them, appropriate supply chain management, timely distribution of supplies especially in hard to reach areas, counseling and default tracking by service providers are the key bottlenecks in ensuring effective coverage of services; with very rapid growth of non-public sector stewardship and regulatory roles of public sector whose structure was mainly to cater service delivery; well coordinated surveillance system; absence of a health sector research strategy and utilization of research findings through appropriate policy/programmatic interventions; working closely with the determinants of health to bring positive effects and prevent or minimize adverse effect; MOHFW's more engagement with climate change issues and subsequent preparedness to response.

*Vision* is to achieve Universal Health Coverage and *mission* is promoting and sustaining health and nutrition with containment of population. Bench mark and targets are set for life expectancy, population growth rate, different child and maternal mortalities, different nutrition indicators, for HIV, TB, malaria and health care financing.

Service delivery strategies include review of existing field-based service delivery; decentralization of the management of facilities; diversification of service provision particularly for hard-to-reach areas; development of a functional referral system; ensuring quality of care; exploration for development of area-based comprehensive health service delivery system through effective cooperation of all existing facilities belong to health and family planning departments, other government departments, NGOs or private sector; collaboration and cooperation among MOHFW, LGD/MOLGRD&C, NGOs, private sectors and others to ensure HPN services for urban dwellers particularly those residing in slums and those who are homeless and floating; development of effective regulatory mechanism to protect the people from the private sector service delivery; exploration for utilizing existing vast informal sector of

health service delivery particularly for hard to reach areas ensuring proper quality of care and for health promotion; strengthening existing FP programme; reviewing on-going initiatives to ensure skilled attendants at birth; improvement in newborn care including intensification of newborn care promotion; strengthening institutional capacity for mainstreaming nutrition as well as facilitating required multisectoral collaboration to combat malnutrition; further consolidation of on-going efforts to reduce effects of communicable diseases along with massive health promotion and prevention for impending non-communicable diseases; ensuring gender and adolescent friendly health services; alternate medical care services will be further strengthened and expanded; health sector's involvement in environmental and climate change issues will be further strengthened together with expansion of medical waste management; appropriate initiatives to manage the emerging and re-emerging health problems together with strengthening emergency preparedness and response capacity by health sector; development of district-specific health service system in Chittagong Hill Tracts and institutional arrangements for respective Hill District Councils to operate respective district health system by providing required support (financial and technical); ensuring tribal-friendly health services for tribal population residing in plain lands; properly addressing disability issues; incorporating health rights and ethics issues in medical, nursing and other relevant curricula and establishing voice and accountability through proper functioning of different committees of public sector health facilities.

Other strategies are development of a national health workforce strategy and rolling plan; further improvement of health information systems; exploration of full potential of ICT; strengthening drug regulatory bodies like Directorate General of Drug Administration and Bangladesh Pharmacy Council; development of a national policy on management of health care technology; proper implementation of Health Care Financing Strategy 2012; strengthen stewardship role and regulatory functions of MOHFW; capacity building of health managers at district and sub-district levels; development of well coordinated surveillance system; development of a health sector research strategy and development of appropriate institutional arrangements to constantly monitor effects of determinants of health as well as regular coordination/liaison with those.

To see Bangladeshi people healthier, happier and economically productive to make the country a middle income country by 2021, despite many challenges to overcome, based on impressive gains achieved in health outcomes in past together with further consolidation of past efforts, new and innovative strategies need to pursue; doing more of the same may not be effective, rather exploration of new ways of doing business is the demand.

## **Introduction**

Links between health and development have long been acknowledged. It is generally recognized that securing a certain level of health-related development is a prerequisite for the overall economic development of a country. Health plays a critical role in achieving particular development outcomes; conversely, development strategies can also have significant positive and negative impacts on the health of populations. Over the last decades, particularly since the Millennium Declaration and formulation of the Millennium Development Goals (MDGs), development and health have increasingly converged. Nearly half of the MDGs address health-related issues and the other MDGs address its underlying determinants. There is also a very large pay off from investing in health. Health improvements have accounted for about 11 percent of economic growth in low-income and middle-income countries. These returns become even larger when full income approaches are used, in which national income accounts are augmented to represent the economic value of the additional life-years (Dean 2013). Thus Bangladesh's aim of becoming middle-income country by 2021 demands substantial importance and investment in health. Also in the process to develop a set of Sustainable Development Goals (SDGs), which will build upon the MDGs and converge with the post 2015 development agenda universal health coverage (UHC) is raised by many as a possible goal and an important tool to foster healthy populations. World Health Organization (WHO) has set the goal of UHC as to ensure that all people obtain the health services they need without suffering financial hardship when paying for them. To address UHC health equity, that refers to the differences in the quality of health and healthcare across different populations including their socio-economic conditions or living in hard-to-reach areas need to take care.

## **Current Situation**

Health, population and nutrition situation of Bangladesh is optimistic as health outcomes continue to improve as demonstrated by the progress on MDGs 4 and 5 with marked decline in maternal and child mortalities. Progress on reaching the MDG 1 target for underweight appears to be on-track. The country's progress in up taking family planning services with corresponding decline in fertility rates, which at an aggregate level is now nearing replacement level has also been another success story. However Bangladesh remains in the midst of rapid demographic changes with population growth continuing, age-structure changing, rapid urbanization and considerable international migration. In addition an epidemiological transition is also taking place linked to progress in reducing the impact of communicable diseases and to changes in lifestyles and the environment. Increasing burden of diseases is arising from non-communicable diseases and emerging/re-emerging diseases. The country is also confronted with double burden in nutrition situation. With concerns of under-nutrition situation the country is also experiencing overweight among adult women and children. Physical location of Bangladesh

makes the country vulnerable to different natural disasters almost as annual event and climate change as well.

## **Policy environment**

Regarding basic necessities, the constitution of Bangladesh documented in article 15: "It shall be a fundamental responsibility of the State to attain, through planned economic growth, a constant increase of productive forces and a steady improvement in the material and cultural standard of living of the people, with a view to securing to its citizens (a) the provision of the basic necessities of life, including food, clothing, shelter, education and medical care". For public health and morality the provision of the constitution in article 18 (1) is: "The State shall regard the raising of the level of nutrition and the improvement of public health as moving its primary duties, and in particular shall adopt effective measures to prevent the consumption, except for medical purposes or for such other purposes as may be prescribed by law, of alcoholic and other intoxicating drinks and drugs which are injurious to health". When the constitutional directive to State is very clear as to secure medical care for its citizens, many policy makers interpret as to deliver by the State. Securing can be ensured without delivering! Similarly existing tobacco taxation policy contradicts constitutional directive of improvement of public health through adopting effective measure to prevent consumption of substances injurious to health.

The Vision 2021 (election manifesto of Bangladesh Awami League in 2008) mentions elimination of contagious disease, primary health care.....for all will be ensured, average longevity will be increased to 70 years, and efforts will be made for the reduction of child and maternal mortalities.

The Perspective Plan of Bangladesh 2010-2021: Making Vision 2021 A Reality encompassed promoting and sustaining health and nutrition, and planning population (both containment and management) and converting them into human resources (GED 2012).

National Health Policy (NHP) 2011 visions health is a recognized human right. In order to achieve good health for all people equity, gender parity, disabled and marginalized population access in health care need to ascertain. Improvement in health of people is essential for poverty reduction (GOB 2012). However NHP 2011 tends to cover everything without any clear direction of priority setting.

Vision of Bangladesh Population Policy 2012 (BPP) is to build healthy, happy and prosperous Bangladesh by planned development and control of population of Bangladesh. The aims of the BPP 2012 are raising contraceptives prevalence rate (CPR) to 72 percent to reduce total fertility rate (TFR) as 2.1 and achieve net reproductive rate (NRR) = 1 by 2015; ensuring availability of

contraceptives to the eligible couple by easing access to reproductive health care including family planning and awareness raising among poor and adolescent about family planning, reproductive health, reproductive tract infection and HIV/AIDS and emphasis on counseling service; reduce maternal and child mortalities and undertaking steps to improve maternal and child health through ensuring safe motherhood; ensure gender equity and women's empowerment and strengthening programme to reduce gender discrimination in family planning, maternal and child health initiatives; adopt short, medium and long term plan by involving concerned ministries for transforming population into human resources; easy availability of information on reproductive health including family planning at all levels (MOHFW 2012). However BPP 2012 is silent about much talked integration of health and family planning programmes for synergistic and effective outcomes by avoiding duplication and wastage.

Vision of draft Bangladesh National Nutrition Policy 2014: Nutrition as the Foundation of Development is Bangladeshi population to achieve healthy and productive lives through desired nutrition. The Policy aims to improve nutritional status of the people particularly mother, adolescent girl and child; and accelerating national development through improvements of lives. The objectives of the Policy are improvements in nutritional status of all people, particularly children, adolescent girls, pregnant and lactating mothers; ensuring habits for diversified and sufficient amount of quality safe and healthy diet; strengthening nutrition specific or direct nutrition interventions and nutrition sensitive or in-direct nutrition initiatives; accelerating multi-sectoral initiatives to ensure nutrition and enhancement of cooperation among all concerned sectors (MOHFW 2014).

Bangladesh has been pursuing sector-wide approach (SWAp) in health sector since 1998 and currently implementing third SWAp titled Health, Population and Nutrition Sector Development Programme (HPNSDP) 2011-2016. HPNSDP's articulation and implementation are being actively linked to the government's Sixth Five Year Plan (SFYP) for 2011- 2016. The vision of the HPNSDP is to see the people healthier, happier and economically productive to make Bangladesh a middle income country by 2021. Mission of HPNSDP is to create conditions whereby the people of Bangladesh have the opportunity to reach and maintain the highest attainable level of health. Goal of HPNSDP is to ensure quality and equitable health care for all citizens in Bangladesh by improving access to and utilization of health, population and nutrition services (MOHFW 2011). However Bangladesh has not been able to bring desired reforms in health, population and nutrition (HPN) sector as expected from SWAp. When the government's main stream planning is still through project approach, SWAp has become odd and thus trying to fit into rules and regulations aimed for project management with its usual consequences. Also the life span of successive SWAp covered more than one governments – not an ideal situation for

reforms. SWAp still find difficulty to have champions among different stakeholders – MOHFW, Planning Commission and Development Partners!

As signatories in numerous international declarations and conventions like Declaration of Alma Ata, 1978 resulting from the International Conference on Primary Health Care, Universal Declaration of Human Rights of 1948, International Covenant on Economic, Social and Cultural Rights of 1966, the 1979 Convention on the Elimination of All Forms of Discrimination against Women, the 1989 Convention on the Rights of the Child, International Conference on Population and Development of 1994 etc. Bangladesh is pledge bound to improvement in health care (GOB 2012).

The HPN sector in Bangladesh evolved. Starting from the First Five Year Plan 1973-78 to the successive Five-Year Plans have adopted primary health care as the key approach for the improvement of the health of poor Bangladeshi people (BHW 2006). Family planning programme, which had been managed from its inception in the 1950s by an autonomous board was moved in early 1970s into the Ministry of Health and Family Planning. In 1976, the government declared population growth as the number one national problem and launched the first National Population Policy. A high level National Population Council was established chaired by the President and comprising key Ministers with support from a Central Coordinating Committee chaired by the Minister of Health. A separate Directorate for Family Planning was established as the executing unit for the policy and programme. From the 1980s to early 1990s, there were series of aggressive developments aimed at achieving replacement level population growth as a key strategy for addressing poverty levels and improving the health status and wellbeing of the people of Bangladesh. Efforts of integration of health and family planning programmes were also undertaken since mid 1980s and the latest being in Health and Population Sector Programme (HPSP) 1998-2003, but none succeeded and family planning programme continues to remain as vertical one. Malaria Eradication Programme, which started as vertical in mid 1960s was integrated with the health service in mid 1970s. As first major nutrition intervention Bangladesh Integrated Nutrition Programme (BINP) was implemented for 1996 to 2002. The BINP activities were continued under the National Nutrition Programme (NNP), actual implementation of which was delayed by two years and in 2006, it was integrated with the HNPSP. In HPNSDP, nutrition is mainstreamed with the service delivery of health and family planning programmes. Table below summarizes the progression of milestones during different planning periods (World Bank 2010):

Planning Periods	Mile stones
1 <sup>st</sup> Five Year Plan 1973-78	<ul style="list-style-type: none"> <li>• Shifted emphasis to prevention with basic curative services</li> <li>• Building health infrastructures in rural areas</li> <li>• Recruiting and training of primary care providers</li> </ul>
2 <sup>nd</sup> Five Year	<ul style="list-style-type: none"> <li>• Adoption of Alma Ata and Primary Health Care as the key approach</li> </ul>

Plan 1980-85	<ul style="list-style-type: none"> <li>• Continued infrastructure development and training</li> <li>• Introduction of union level facilities – Health and Family Welfare Centers (H&amp;FWC)</li> <li>• Menstrual Regulation Policy</li> </ul>
3 <sup>rd</sup> Five Year Plan 1985-1990	<ul style="list-style-type: none"> <li>• Expansion of EPI and satellite clinic services</li> <li>• Specialized services at Thana Health Complex</li> <li>• Modernization of District Hospitals</li> </ul>
4 <sup>th</sup> Five Year Plan 1990-1995	<ul style="list-style-type: none"> <li>• Capacity building efforts</li> <li>• Introduction of integrated services in rural areas through merger of EPI outreach and satellite clinics</li> <li>• Improving quality and coverage</li> <li>• Improving health of disadvantaged populations</li> <li>• Encouraging NGO involvement in service delivery</li> </ul>
5 <sup>th</sup> Five Year Plan 1997-2002	<ul style="list-style-type: none"> <li>• Strengthening of Urban health services</li> <li>• Health and Population Sector Strategy (HPSS) 1997</li> <li>• Health and Population Sector Programme (HPSP) 1998-2003</li> <li>• National Health Policy 2000</li> </ul>
2003-2011	<ul style="list-style-type: none"> <li>• HNPSP</li> </ul>
6 <sup>th</sup> Five Year Plan 2011-2016	<ul style="list-style-type: none"> <li>• HPNSDP</li> <li>• National Health Policy 2011</li> <li>• National Population Policy 2012</li> </ul>

## Review of Progress

Good progress has been made in improving health outcomes for the people of Bangladesh. The country is making good progress in almost all of the health-related MDGs. Some are already attained. In others, the country is well on track. MDG 1 target indicator of prevalence of underweight among children under 5 years of age had declined from 66 percent in 1990 to 35 percent by 2011, which is 47 percent reduction against the required 50 percent reduction by 2015 (MIS 2014). It is expected that Bangladesh will be able to achieve MDG 1 target of 31 percent by 2015 (MOHFW 2014). Despite significant progress in sustained economic growth, reduction in maternal and child mortality, Bangladesh remains one of the countries with the highest level of malnutrition among the developing countries, with children and women the most affected. Stunting, reflection of the cumulative effect of chronic under nutrition, is the most common form of malnutrition. 2 in every 5 children under age 5 years in Bangladesh are stunted. During 7 years of 2004 to 2011 stunting had reduced by 1.7 percent annually (MOHFW 2014). Overall 16 percent of children under age 5 years in Bangladesh are wasted, reflection of acute or recent nutritional deficit. No improvement in wasting – 15 percent in 2004 and 16 percent in 2011 (NIPORT 2013) and about 600,000 under 5 children are severely acute malnourished annually. Overall 13 percent of ever-married women fall below the cut-off of 145

centimeters in height (NIPORT 2013). Given the relationship between maternal stature and pelvic size, women's height can be useful in predicting the risk of difficulties in delivery. The risk of giving birth to low-weight babies is also higher among women of small stature and poor nutritional status. The body mass index (BMI) is used to measure thinness and obesity. About 1 in 4 ever-married women age 15-49 years are undernourished or thin BMI and 17 percent are overweight or obese. High level micronutrient deficiency exists in Bangladeshi population (MOHFW 2014). 4 in 10 women age 15-49 years are anaemic (NIPORT 2013).

Bangladesh already attained the target of MDG 4 about reduction of child mortality rate. Bangladesh's under 5 mortality rate has been dropped to 41 per 1,000 live births by 2012 from 144 per 1,000 live births in 1990, which is 71 percent reduction against the target of 66 percent reduction by 2015 (MIS 2014). The infant mortality rate of Bangladesh is 33 per 1,000 live births, and the neonatal mortality rate is 24 per 1,000 live births. The share of neonatal mortality rate is 59 percent of under-5 mortality rate and 80 percent of infant mortality rate (MIS 2014).

Maternal mortality, which is MDG 5, had dropped to 194 per 100,000 live births by 2010, which was 574 per 100,000 live births in 1990, a drop by 70 percent against the 2015 target of 75 percent (MIS 2014). Though the antenatal coverage at least once by skilled health personnel is 59 percent, the antenatal coverage at least four times by any provider is 25 percent (BBS and Unicef 2014). Delivery attended by skilled health personnel is 43.5 percent, while delivery in health facility is 31 percent and delivered by caesarean section is 19 percent (BBS and Unicef 2014).

For MDG 6, Bangladesh continues to remain low prevalence country with less than 1 percent prevalence of HIV among high-risk population. However people age 15-49 years who have heard of AIDS is 56 percent (BBS and Unicef 2014). Malaria prevalence is 18.4 per 100,000 population against the 2015 target of 29.3 per 100,000 population; malaria death rate is 0.007 per 100,000 population against the 2015 target of 0.053 per 100,000 population. There is 68 percent and 90 percent reduction in malaria morbidity and mortality respectively in 2013 compared to 2008 (MIS 2014). For tuberculosis (TB), the 2015 MDG targets for case notification rate and cure rate have been achieved. Current TB (all forms) prevalence is 411 per 100,000 population (against the target of 320 per 100,000 population) and TB death rate is 45 per 100,000 population (against target of 38 per 100,000 population). New smear+ve TB case notification rate under DOTS is 68 percent (against target of more than 70 percent by 2015) and TB cure rate with DOTS is 92 percent (against target of more than 85 percent by 2015) (MIS 2014).

Bangladesh obtained polio-free certification from World Health Organization (WHO) in February 2014. The country is also satisfactorily progressing toward achieving the measles

elimination goal of the WHO's South-East Asia Region by 2020. The proportion of children age 12-23 months who is fully vaccinated has increased to 86 percent from 73 percent in 2004 (NIPORT 2013). The last birth was protected against neonatal tetanus in 90 percent cases which was 91 percent in 2007 and 42 percent of mothers received two or more tetanus injections during their last pregnancy, which was however 55 percent in 2007 (NIPORT 2013). Bangladesh has achieved elimination of leprosy as a public-health problem at the national level at the end of December 1998. The country is also set to achieve elimination of filariasis before 2015. Bangladesh has also aim to achieve the target of elimination of kala-azar by 2015.

Total Fertility Rate (TFR) declined by 4 children per woman in total. The TFR declined sharply from 6.3 births per woman in 1971-1975 to 5.1 births per woman in 1984-1988, followed by another rapid decline in the next decade of 1.8 births per woman to reach 3.3 births per woman in 1994-1996. Following a decade-long plateau in fertility during the 1990s, at around 3.3 births per woman, the TFR declined further by one child per woman during the current decade to reach 2.3 births per woman in 2009-2011 (NIPORT 2013). Contraceptive Prevalence Rate (CPR) increased by more than 7 folds. 3 in 5 married women in Bangladesh use a method of contraception and more than half use a modern method of contraception (52 percent). Use of contraception increased from 56 to 61 percent between 2007 and 2011. The four most popular modern methods are the oral pills (27 percent), injectables (11 percent), male condom (6 percent) and female sterilization (5 percent). Only 8 percent of currently married couples use a long-term or permanent method, such as sterilization, IUD or implant. More than 1 in 3 users of contraception has discontinued a method within 12 months of starting its use (NIPORT 2013).

The legal age of marriage in Bangladesh for women is 18 years, but a large proportion of marriages still take place before the legal age. 65 percent of women were married before age 18 (NIPORT 2013). Over the past two decades, the proportion of women marrying before the legal age has decreased slowly from 73 percent in 1989 to 65 percent in 2011. Woman age at marriage hardly changed despite rapid improvement in female education. Childbearing begins early in Bangladesh. 30 percent of adolescents age 15-19 have begun childbearing. About one-fourth of teenagers have given birth and another 6 percent are pregnant with their first child (NIPORT 2013).

## **Issues and Challenges**

### ***Service delivery***

1. *MOHFW service delivery*

Though Bangladesh has one of the best public health services network covering field-based domiciliary services and facilities at different levels like village (community clinics), union (union sub-centers, union health and family welfare centers etc.), upazila (31-50 bed upazila health complexes with dedicated maternal and child health units etc.), district (100-250 bed district hospitals, chest hospitals, chest clinics, school health clinics, maternal and child welfare centers etc.), division (250-500+ bed medical college hospitals) and several specialized hospitals (all most all at Dhaka), yet it failed to materialize full potential of such huge network. Making fully functional of the network is a challenge. Community Clinics (CC) for each of 6,000 rural population, introduced during HPSP and again revitalized since 2009 has been able to deliver health services at the door step of people. Involvement of communities through Community Group and Community Support Groups is another praiseworthy initiative. However full functioning of community clinics through regular attendance of all the designated providers; efficient use of more than 30 types of medicines including antibiotics being prescribed by non-accredited providers remains issues to take care. Thorough review need to undertake to explore possibility of a move towards more facility-based services and away from the field-based domiciliary approach as communications and access to services improves. Establishing a functional referral system across facilities at different levels to improve the continuity of care is another area of urgency. Progress found to be very slow in respect of improving the efficiency and quality of hospital services. Total Quality Management (TQM) has been introduced for improving quality of care in 50 hospitals only (IRT 2014).

## *2. Non MOHFW public sector service delivery*

Besides MOHFW, many other government ministries/departments are engaged in various forms of health services delivery. Combined Military Hospitals, Border Guard Bangladesh Hospitals, Police Hospitals, Railway Hospitals are few to name. Making functional collaboration among all the public sector facilities be belongs to MOHFW (DGHS and DGFP) or other ministries for an effective, coordinated and synergistic public sector health care delivery system is an issue to consider.

## *3. Private sector service delivery*

In developing countries the dominant form of provision is often a network of formal and informal private facilities and practitioners. It has been estimated that in developing countries private physicians constitute 55 percent of the total number while across Asia the figure rises to 60 percent (Hanson and Berman 1998). Bangladesh has a pluralistic health system that has been credited for the country's impressive health outcomes by the Lancet series. However an issue of particular concern is the role of the non-public or private health work force. This includes both qualified and informal (often known as village doctors or unqualified/semi-

qualified providers or quacks and traditional birth attendants – both trained and untrained) service providers. Over 80 percent of people in Bangladesh turn to non-public providers, with informal providers a frequent first resort often for poor and remote villagers (Bangladesh Health Watch 2007). Development of an effective beneficial private sector requires a strong and effective regulatory structure that makes use of a combination of tools including government rule setting, strong and responsible professional bodies, availability of information on provider quality and a transparent system of patient rights. It also requires support for consumer groups that are empowered to act on behalf of patients including statutory access to information on the functioning of private providers. National Health Policy 2011 (NHP 2011) mentioned that the quality and extent of current health services provided by public and private sectors in the country needs to be improved. High fees and excessive diagnostic tests in private sector are considered to be the main reasons for expensive treatment. People are also not happy with the management and quality of almost all of private medical services. 12<sup>th</sup> main goal of the NHP 2011 mentioned that to ensure quality service by private hospitals, clinics and diagnostic centers and keep the services cost affordable to all people. Under challenges the NHP 2011 mentioned that quality control is necessary for private health care facilities. The existing government regulatory system needs to be strengthened for this purpose. 16<sup>th</sup> strategy of NHP 2011 mentioned that measures will be taken to develop and apply necessary rules and regulations in order to ensure availability of proper and quality medical care for the patients of private sector. Steps will be taken to keep treatment costs including diagnostic tests at bearable level.

#### *4. Hard to reach area service delivery*

Hard to reach areas require different strategies for health service delivery. Health work force issues plague service delivery in the hard to reach areas and failure to achieve DAAR (Disbursement for Accelerated Achievement of Results) by DGHS (during HPNSDP) suggests that this remains a challenging area (IRT 2014). On the other hand NGOs are working with DP support in hard to reach areas with the aim of ensuring delivery of quality health care services at affordable prices (IRT 2014). Increasing access and providing equitable and quality services are likely to significantly improve health outcomes by reaching out to poor, marginalized and underserved populations. Therefore it is high time to explore diversification of service provisions including public-private partnership by the MOHFW particularly for hard to reach areas.

#### *5. Family planning services*

Considerable work still to be done both to maintain and consolidate the progress made in family planning (FP). This includes tackling regional variations (3 out of 7 divisions achieved

replacement level fertility, fertility in Sylhet and Chittagong is 1 child more than Khulna), rich-poor differentials in fertility (poor woman has 1 child more than woman of three upper quintiles), inappropriate method mix with much dependency on temporary and short acting methods over long acting and permanent methods, high discontinuation rate, high levels of menstrual regulation (MR) uptake and high number of induced abortions which reflect the need to reduce the number of unintended and unwanted pregnancies, post partum, post MR and post abortion FP services are not widely provided. Many of these issues are due to vertical nature of FP program, which is not integrated with health services.

#### *6. Maternal health services*

Challenge in maternal health is to continue to push the maternal mortality rate lower with careful consideration of the existing strategies as the proportional causes for mortality change and indirect causes become more apparent. Emerging issues relate to the need to make progress on ensuring skilled attendance at delivery and defining the most appropriate approach to provide this service close to community with access to emergency care when needed. Improving access and utilization of preventive and curative services of maternal morbidities like fistula is another area that demands attention.

#### *7. Child health services*

As with maternal mortality, there is still much to be done to push the different child mortality rates even lower. Between the periods 1989-1993 and 2007-2011, infant mortality declined by half, from 87 to 43. Even more impressive are the 71 percent decline in post-neonatal mortality and the 60 percent decline in under-5 mortality over the same period. The corresponding decline in neonatal mortality was 38 percent only. Comparison of mortality rates over the last two surveys show that infant, child and under-5 mortality have declined by about 20 percent. As a consequence of this rapid rate of decline, Bangladesh is on track to achieve the MDG4 target of an under-5 mortality rate of 48 deaths per 1,000 live births by 2015. An examination of neonatal, infant and under 5 mortality rates in Bangladesh over the last 18 years reveals that neonatal mortality declined at a slower pace than infant and child mortality, with the result that neonatal deaths have increased from 60 percent of all infants deaths in 1989-93 to 74 percent in 2007-11, and from 39 percent of under-5 deaths in 1989-93 to 59 percent in 2007-11. The area where progress has been slower is in neonatal mortality that is proving harder to reduce. This will now need to be given more attention not least because of the high percentage of women who are delivering at home often without any skilled birth attendant present.

#### *8. Nutrition services*

Progress on reduction of stunting is slow and at around 41 percent and thus more intensive efforts is needed to drive this downwards. Wasting is another area that needs attention as the rate has been unchanged over time and remains above WHO threshold for emergency. Fluctuation in seasonal wasting of up to 15 percent was reported and problems of severe malnutrition are evident (IRT 2014). There are problems with micro-nutrient deficiencies and more attention is needed on nutrition of pregnant women and adolescent girls. On the other side of nutrition there is also growing concern about the rise in overweight in some section of adult women and children which need to be tackled early to prevent the rise in obesity related health problems like type-2 diabetes. Also food safety is a great public health concern now. After limited success in vertical nutrition interventions (through BINP and NNP), Bangladesh choose to mainstream nutrition interventions within existing health and family planning service delivery networks. However institutional limitation and undertaking of too many interventions (both direct or nutrition specific interventions and indirect or nutrition sensitive interventions) altogether limited the achievements. Mainstreaming nutrition together with required multisectoral collaboration remains challenge as altogether 15 ministries (13 directly) involved with the improvement of nutrition in Bangladesh.

#### *9. Mental health services*

Though health implies both physical and mental health, yet psychological aspect of health is yet to address with proper attention. People are less aware, services are limited and social stigma is attached with it. However due to various socio-economic reasons increasing amount of people are in desperate need of such essential service. Recent attention and activities relating to autism has unearthed the problem and related requirement. Developing and delivering a comprehensive mental health service is an important issue to address.

#### *10. Services to tackle double burden of diseases*

Epidemiological transition from mainly communicable disease to an increasing problem of non-communicable disease (NCD) is posing another challenge. The health system will need to consider its response to this changing epidemiology but at the same time ensure it does not reduce its efforts to tackle important communicable disease prevention and treatment interventions. The role of the private sector in the treatment of NCDs is growing rapidly but still lacks effective regulation. The response from the government needs to take into account how to increase efforts on prevention of NCDs and how to ensure a well regulated service delivery system for their treatment.

Bangladesh is considered as a country with high TB/high multi-drug resistant (MDR) TB burden and WHO estimates suggest about 1.4 percent of the TB patients become MDR, which would put the total number of MDR cases in Bangladesh above 8,500 (WHO 2013). Further

consolidation of leprosy elimination, particularly in pockets and reduction in disability Grade 2 rate among newly detected cases are challenges. New HIV positive cases continue to increase in Bangladesh and the country is among the few countries of the world where the infection is not arrested.

Data on arsenicosis, violence (especially against women), accident, genetic and blood disorders like thalasaemia, drowning, poisoning, suicide amongst specific sections of the population is presenting as important mortality and morbidity. Proper emphasis needs to place for tackling these problems.

### *11. Services for Disabled*

As Bangladesh makes progress, we are expected to experience a lower incidence of impairments. However, the gains due to improved health care is likely to be outweighed by the triple effects of increased numbers of impaired children surviving; increased numbers of people incurring impairments due to old age (e.g. cataracts and arthritis) and widespread malnutrition. A lack of consistent oxygen supply at the hospitals beyond the district level means that, a newly born child, especially suffering a prolonged labour, not necessarily gets the required oxygen soon after birth. This alone starves the brain of the required oxygen supply, resulting in conditions like cerebral palsy, or intellectual disabilities. These are, compounded with the natural calamities and a constant occurrence of road traffic accidents and violence implies that the prevalence of impairments in Bangladesh is likely to continually rise over-time, although the nature and distribution of impairments are also likely to change considerably. Addressing disabled – both physically and mentally through appropriate services remains major challenge.

### *12. Adolescent health services*

Providing correct and appropriate information to the adolescents whether in or out of academic institutions together with provisions of adolescent-friendly health services remain another challenges. Bangladesh has one of the highest rates of child marriage in the world with over a third of marriages amongst females before the age of 15 years. About a third of girls begin childbearing before the age of 15 years.

### *13. AMC services*

Alternate Medical Care (AMC) is popular in Bangladesh and is frequently an affordable and preferred option especially in rural areas and for the poor. The recent (September 2014) WHO SEARO Summit in Bangladesh focused on promotion of AMC while highlighting quality and accreditation issues. Increasing the number of facilities providing AMC has not been achieved. Neither has there been any progress in preparing pharmacopeia and formularies for ayurvedic/unani and homeopathy. Herbal gardens have also not been established as aimed.

#### *14. Health promotion services*

Despite commendable success in health education (HE)/behavior change communication (BCC) in family planning and immunization, there still seems to be a lack of information to women and families at service delivery points and a general lack of coordination of unified health messaging is occurring. An overall strategy across Bureau of Health Education and others in DGHS and Information, Education and Motivation Unit and others in DGFP is lacking. This needs to take care urgently for increasing HE/BCC work covering promotion of health lifestyle choices, such as hygiene promotion including hand washing, good nutrition, importance of exercise, sexual health, substance misuse etc., environmental issues such as transport (road/railway/riverine) safety, pollution, food safety etc.

#### *15. Environmental health services*

Environmental health hasn't got due attention. Little engagement is apparent by the MOHFW in general on environmental health issues. There appears to be growing concern about environmental pollution (land, water, air). Dhaka's urban environment is a classical example of highly polluted environment and poses hazards to the city inhabitants, especially in slums. Rapid urbanization is expected to get the situation worse and thus demands urgent attention to mitigate the situation. Health facility waste management is another important environmental health issue in which limited progress has made. Best practice should be used to expand waste management systems across all public and non-public health facilities throughout the country.

#### *16. Urban health services*

Respective local government institutions (city corporations and municipalities) are responsible to provide primary health care and they belong to Local Government Division (LGD) of the Ministry of Local Government, Rural Development and Cooperatives (MOLGRD&C). Urban Primary Health Care Project (UPHCP), which is in its third phase of implementation had been able to cover limited geographical locations (10 city corporations and 4 municipalities currently) and though some city corporations have some facilities, yet coverage, particularly for slum and street dwellers are limited so also for family planning and nutrition services. Absence or paucity of service facilities in urban areas means that the disadvantaged are the worst sufferer which is evident from the health status of the urban people living in slums. Inter-ministerial and UPHCP steering committees exist with representation from MOHFW and LGD, MOLGRD&C, however coordination between the two ministries for developing an effective urban health service delivery with functional referral between PHC providers (of LGD) and secondary/tertiary health care facilities (of MOHFW) still remains a challenges.

#### *17. Tribal health services*

Access and utilization of public sector health services by tribal population remain another challenge. Tribal population lives in plain land as well as in three hill districts, collectively known as Chittagong Hill Tracts (CHT). As per laws, health and family planning departments (along with many other departments) are transferred (by MOHFW) to respective hill district councils (HDCs). However DGHS and DGFP continue to administer its field and facility-based network in the three hill districts like rest of the country. This dual administration pose problem for effective health service delivery in the three hill districts. As CHT is different than rest of Bangladesh in many aspects like rugged terrain, hilly environment, scattered population, frequent shift of homesteads, jhum cultivation that requires residing in temporary residence for cultivation period, inadequacy of communications, multiplicity of ethnicities and languages used, post-conflict environment etc ., MOHFW's 'one size fit for all' approach has serious limitation in CHT which is aggravated by chronic vacancy and absenteeism by public sector providers. On the other side, though the HDCs have been entrusted to deliver health services through the transfer of functions, they are not yet supported with allocation of adequate funds and functionaries. Therefore they suffer from financial and other capacity problems to deliver on the entrusted responsibilities, a situation that ultimately affects the people of the CHT, whose rightful access to health services remain limited. Currently with support from UNDP HDCs operate tailor-made parallel health system in little more than half of the CHT. Bringing these two health systems together to develop a CHT specific health system that caters the special need of CHT population and development of institutional arrangement to support (financially and technically) HDCs to operate that system is the urgent need. Orientation of the existing health and family planning service delivery network in plain land areas of tribal population for providing appropriate tribal-friendly services with proper follow-up and supervision remain another challenge to ensure equity in access and utilization.

#### *18. Managing emerging and re-emerging diseases and emergencies*

Managing emerging and re-emerging diseases like dengue, rabies, avian, anthrax, nipah, chikunguniya, MERS-CoV, novel Influenza, ebola etc. together with preparedness and response in emergencies particularly due to natural and human made disasters remain as challenge.

#### *19. Gender-friendly health services*

Health services provided by public or private sectors including NGOs are in general not gender-friendly. Physical structures usually don't take care of dedicated toilets facilities or waiting spaces for women or facilities like breastfeeding corners. Toilets are often in unusable condition. Majority of the facilities operating time of 8:00 am to 2:30 pm don't match with women's requirement as they had other competing household priorities in the early morning hours. Non-availability of female service providers particularly in rural areas also restricts

acceptability of services by women. Non-respect of privacy and confidentiality, particularly in outdoor consultation also discourages many women in seeking services. Promoting gender sensitivity in structural design to every steps of service delivery like considering operating timing, female service providers, respecting privacy and confidentiality etc. in the health service delivery is an important issue and challenge.

#### *20. Ensuring equity*

Inequity found to exist in health services which are evidenced in several health indicators. Inequity also found geographically (urban-rural, slum and non-slum in urban, division-wise, district wise etc.), sex-wise, education level, wealth quintile etc. Socio-economic differentials in prevalence of diseases indicate that in poorer household women are likely to be worse off compared to better off household. It is necessary to improve and revise existing indicators through disaggregated data to get better picture on inequity of access and utilization of health services. Scoring of each districts and creation of district equity profile will greatly enrich overall programme management. Discriminatory norms of household resource allocation in health care seeking are also responsible factor. Ensuring equity is the demand of universal health coverage.

#### *21. Voice and accountability*

Though provision of participation of various stakeholders including clients/patients are there in the name of different committees at different facilities levels like Community Group and Community Support Group in Community Clinic, Health Services Improvement Committee at Upazila Health Complex, District Hospital and Medical College Hospital, in majority places these committees are non-functional. Challenges remain to make these committees functional and then gradually real representation of all sections of the society and with participation and voice, particularly of women, poor and marginalized.

#### *22. Health Rights perspective*

Considering the criteria set by the UN Committee on Economic, Social and Cultural Rights (in May 2000) to evaluate the right to health (availability, accessibility – physical, economic, non-discrimination, information, acceptability and quality), Bangladesh faces many challenges and much to work out.

#### ***Health workforce (HWF)***

In absence of Human Resources for Health (HRH) strategy and plan, decisions continue to be taken on ad-hoc basis, many times creating problems rather than resolving or shifting problems than solving. Absence of Human Resource Information System (HRIS) is another serious short-coming and management decisions like recruitment, deployment, training etc. are taken on

'guesstimate' basis rather than based on accurate information. Too many types of HWF exist. Bangladesh Nursing Council registers 11 different types of nursing and allied courses (Kabir, Sabur and Hossain 2014). At least 4 different types of post-graduation courses offer in the same discipline for physicians. Bangladesh also suffers from all five key challenges for HWF as identified by the Joint Learning Initiative on Human Resources for Health (JLI 2004), which are:

### *1. Shortage*

Bangladesh National Health Policy 2011 identified Bangladesh as one of the 57 countries of the world having crisis in HWF (MOHFW 2012). There are shortage of HWF, particularly qualified ones like physicians, dentists, nurses, medical technologists and para-professionals in general, which is more in hard-to-reach rural areas. Bangladesh had been identified with a staggering shortage of over 60,000 doctors, 280,000 nurses and 483,000 technologists (BHW 2008). Even with the impressive growth of training facilities, shortage will continue in coming years also. After recruitment of 42,647 HWF during financial years of 2011-14, four departments of MOHFW (DGHS, DGFP, DNS and DGDA) collectively had 31, 439 vacancies, which was 15 percent as of June 2014 (PMMU 2014). Besides several post-graduate courses in about dozen of institutions, six months to one year anesthesiologist training had been operation since mid 1990s, yet anesthesiologist shortage is hampering comprehensive emergency obstetrical care (CEmOC) service particularly in upazilas. Acute shortage also exists in particular areas like public health, more so for professionals capable of providing policy advice and identifying priority health interventions in resource constraint situation. Also shortage of qualified managers for operating public health interventions and hospitals exists. So also for researchers in public health interventions and policy issues. Shortage of skilled attendance during birth has emerged as barrier for achieving maternal mortality MDG.

### *2. Skill-mix imbalance*

Serious skill-mix imbalance exists among HWF. Bangladesh has more physicians than nurses against global recommended norm. National Health Policy 2011 identified Bangladesh had doctor-nurse ratio as 1: 0.48 against international standard of 1:3 and termed the situation as unacceptable (MOHFW 2012). Looking at the growth of different training facilities, there is no reason to believe that the situation might change in future. Considering seats capacity of all public and private medical colleges and nursing institutions it was found that seats for nurses are 6,600 against seats for physicians as 8,026 (MIS 2014). Sanctioned posts of nurses under Directorate of Nursing Services (DNS) were 22,061 while sanctioned posts of doctors under DGHS were 23,061 in 2013 (MIS 2014). The on-going HPNSDP 2011-2016 aims to increase numbers of doctors from baseline of 5,000 to 6,000 by mid 2016, however for nurses it aims

from baseline of 2,700 to 4,000 by mid 2016 (MOHFW 2011), meaning continuation of more doctors than nurses!

Skill-mix imbalance situation get deteriorated with the in-appropriate policy decision. For better maternal health, when decision was taken to create Community Skilled Birth Attendants (CSBAs), instead of creating a new cadre through training, decision was taken to convert existing female health and family planning field workers (Health Assistant - HA and Family Welfare Assistant - FWA) as such through providing 6 months training. Given the total number of CSBAs required in the country and considering availability of female HA and FWA, it was known that their number would not be sufficient to accomplish the task. Moreover they have their designated job responsibilities to perform. After investing a lot in CSBA training the conclusion arrived now is that CSBA could not be effective! Similarly when the Prime Minister declared in United Nations (UN), while receiving MDG 4 award, for training and deploying 3,000 midwives, a cadre that didn't exist. Instead of training and creating posts of midwives, decisions were taken to retrain nurse-midwives as midwives (again!) through providing six-months training. A country known for shortage of nurse, decided to retrain its existing nurse as midwife. Shifting problem doesn't solve the problem and not learning from past mistake aggravates the situation further! Though later on, dedicated midwives are trained through fresh enrollment.

### *3. Mal-distribution*

Whatever number of HWF exists, they are not equally distributed. Urban, particularly major cities experience more concentration of qualified personnel, while hard-to-reach rural areas are left for unqualified/semiquanlified personnel. There are more facilities (both in numbers and in beds strength) in urban than rural from both public and private sector, which obviously allow urban concentration. However geographical mal-distribution also noticed in terms of production of graduate physician – considering all (government and private) medical colleges Dhaka division found to had 3,680 seats as compared to 197 seats of Barisal division in December 2011 (DGHS 2012). Also in terms of availability of physicians and vacancy situation under DGHS – Dhaka division had highest number of sanctioned post of physicians as 9,041 with 21 percent vacancy, when Sylhet division had 1,403 sanctioned posts of physicians and vacancy in Barisal division was 53 percent (MIS 2014). Per 10,000 population physician was found as 10.8 at Dhaka division which was 1.7 in Barisal division; 18.2 in urban while 1.1 in rural (BHW 2007). Lack of effective governance in public sector failed to retain HWF in rural, particularly hard-to-reach areas. All most all the super/specialized hospitals in public sector are located at Dhaka, a phenomenon replicated by the private sector also. This resulted non-availability of required specialized care outside Dhaka which ultimately limited access and utilization of services.

#### *4. Negative work environment*

Due to shortage of HWF, work-load of existing increases. Many of them may work under shortage of drugs and other supportive logistics that undermine their moral. Most of the HWF, whether worked for public or private sector, has none to very limited career progression, which when compared with other workforces engaged in other sectors become a constant source deprivation that has consequential impact in their work. Lack or limited scope of continued education also demoralizes them. Those who work for public sector are governed by broader civil service rules and regulations which may fail to take care of proper incentive package, reward, deployment etc. and thus add to the negative work environment.

#### *5. Weak knowledge base*

Massive growth of different training institutes, both in public and private sectors in limited time resulted in shortage of qualified faculties and other supportive environment for effective knowledge and skill development. Existence of non-approved and non-accredited institutions makes the situation worse. Multiple roles (clinician/surgeon, administrator, researcher) of many faculties together with engagement of public sector faculties in private sector also add to the weak knowledge base of the students. The weak knowledge base of student period gets aggravated in absence of system of continued education throughout their career.

#### ***Information***

Fragmented information systems (among health, family planning, nursing, drug administration, urban health, non MOHFW facilities, private sector, NGOs etc.) obstruct to get a full picture of health sector. Limitations of routine reporting systems in terms of completeness and reliability pose another challenge. Use of information to make management decisions at different levels are not a usual practice!

#### ***Information communication technology***

Use of information communication technology (ICT) for better effective service delivery, particularly in hard-to-reach areas, improved education including continuous in-service capacity development, data collection and use of the same to make management decision at different levels, ensuring improved management practices etc. are not fully explored. Exploration of full potential of ICT for ensuring better health system is an important issue.

#### ***Drugs***

Too much availability rather than non-availability of drugs poses a challenge. Community clinics (CC) are supplied with more than 30 different types of drugs where the provider (Community

Health Care Providers) has only three months training! CCs were reported to be collection points of free drugs and available on demand rather than prescribed as required (David 2012). Most of the drug shops lack pharmacist. Private drug shops effectively partner with a poorly educated population to provide a self-medication option is the dominant mode of curative care. Unnecessary and even harmful drugs are dispensed without a prescription, frequently in a branded form rather than in an equally effective generic form and in less than required dosage that leads to the development of drug resistance. Sub-standard, adulterated and fake drugs are often reported in media. Like other regulatory bodies, DGDA also suffers from capacity problem to enforce the drug control related legislation. Two-thirds of out-of-pocket expenditures (66 percent) go for drugs. Promotion of rational use of drugs is very limited.

### ***Equipments***

Continuous technological advancement keep on pushing for acquiring latest technology and thus increasing treatment costs. However proper use of purchased equipments, particularly in public sector remain as a challenge. It was found that only 50 percent of the equipment that was supplied under the Health and Population Sector Programme (HPSP) 1998-2003 was effectively used at its final destination. Of the remaining 50 percent of major medical equipment that was not used 17 percent was in working condition but not in use, 16 percent was not installed and 17 percent was out of order. However an analysis of the economic effectiveness of equipment learned that only 25 percent of the total value of major medical equipment was not effectively used. Apparently there was more effort on the effective use of expensive high tech equipments than on the use of moderate expensive equipment (Simed 2008). Development of a national policy on management of health care technology in which all stages of the procurement process is identified in the Planning, Supply and Ownership Management (PS&OM) model are addressed is an issue to take care.

### ***Financing***

Challenges posed by health financing in Bangladesh are summarized as (i) inadequate health financing; (ii) inequity in health financing and utilization; and (iii) inefficient use of existing resources (HEU 2012). According to an estimate US \$ 54 per capita is required to attain a fully functioning health system and to cover a basic package of services including interventions targeting non-communicable diseases by 2015 (WHO 2010). The results of the Millennium Development Goals (MDGs) Needs Assessment and Costing study (2009-2015) show that US \$ 19 per capita is required to achieve only the health related MDGs during 2009-2015 in Bangladesh (GOB 2009). There is a significant resource gap since Bangladesh spends US \$ 27 per capita in health. This compares rather unfavourably with most countries in the region – per capita spending for health in India is US \$ 59, in Nepal US \$ 33, Sri Lanka US \$ 97 and in Pakistan US \$ 30 (Islam 2014). Public health spending comprises less than 1 percent of the Gross

Domestic Product (GDP). MOHFW's budget as percentage of national budget is on continuous decline (6.33 percent in 2009-2010 and 4.27 percent in 2013-2014). During the HNPSP 2003-2011 the target of 10 percent of the national budget for health was not realized (HEU 2012). Development assistance is also declining. At the beginning of HNPSP 2003-2011 development assistance was one third of the total program budget which was reduced to one fourth at the beginning of HPNSDP 2011-2016 (HEU 2012). The main sources of finance for total health expenditure is out-of-pocket (OOP) spending (64 percent) followed by government spending (26 percent) (HEU 2010). In Bangladesh, the better off pay more out of pocket for health care, spend proportionately more of their household resources on health care, and also receive more or better care. But the poor pay less and receive less health care since they simply cannot afford to pay and hence do not seek treatment (O'Donnell et al 2008). Illness shocks have catastrophic economic consequences through lost earnings besides catastrophic medical spending (Van Doorslaer et al 2007). The estimated income loss due to illness in rural Bangladesh was about one tenth of income of the hard core poor (BIDS 2001). Incidence of catastrophic payment for medical care is high in Bangladesh, with at least 10 percent of households spending more than one fourth of their household resources net of food costs on health care (HEU 2012). Illness or health shocks pushed 18 percent of households into poverty (BIDS 2006). Low levels of efficiency in healthcare financing include nearly two-thirds of OPP spending in drug shops, which are the major health care providers for Bangladeshi households. OOPs do not use pre-payment mechanism. MOHFW that accounts for 97 percent of public health spending every year ends up with some un-spending amount that reflects weak absorption capacity which is said due to rigid public sector financial management. The government budget provided to public hospitals is allocated on the basis of number of beds and staff employed which lead to inefficiency and inequity as important factors such as the case mix and severity, quality of services and other cost factors are not sufficiently consider. Also since hospitals have limited authorization for purchasing goods for hospitals when required that's why expenditure of allocated budget is also poor leading to further inefficiency.

The implementation of Health Care Financing Strategy that goals to strengthen financial risk protection and extend health services and population coverage with the aim to achieve universal health coverage is a challenge.

### ***Governance***

In absence of adequate decentralization, governing the huge and complex network of health personnel and facilities is a great challenge. Strengthening of the health system in filling up of vacant posts, supervision and monitoring, record keeping and reporting, accountability and attitudes of service providers are key areas to be improved. Capacities of district and sub-district health managers in planning and budgeting, efficient management of human resources

to retain them, appropriate supply chain management, timely distribution of supplies especially in hard to reach areas, counseling and default tracking by service providers are the key bottlenecks in ensuring effective coverage of services. With very rapid growth of non-public sector stewardship and regulatory roles of public sector whose structure was mainly to cater service delivery pose another important challenge. Most of the regulatory bodies under MOHFW require new or updated legislation with their effective implementation demand reorganization of existing structures with proper capacity development.

### ***Surveillance***

Diseases surveillances are undertaken by respective programmes. HIV, Flu and NIPAH cases are under active surveillance of the Institute of Epidemiology, Disease Control and Research (IEDCR). Vaccine preventable diseases surveillance is taken care by EPI. Cancer screening and surveillance are done by NCD control programme. Well coordinated single surveillance system might reduce costs and better effective.

### ***Research***

Lot of research activities are undertaken by the public sector, both by the individual programmes and research institutions. Bangladesh is also blessed with international institutions like International Centre for Diarrhoeal Diseases and Research, Bangladesh (icddr,b) or James P Grant School of Public Health etc. However in absence of a health sector research strategy, well coordinated efforts are not possible to undertake. The other challenge is to utilize research findings for the benefit of people through appropriate policy/programmatic interventions

### ***Determinants of health***

Health is influenced by many sectors, which are beyond the health sector; yet health sector face the consequences. Water and sanitation, education, transportation, electricity, environment, violence (especially against women), age at marriage – are few to name. Working closely with all these determinants of health to bring positive effects and prevent or minimize adverse effect is an issue that is challenging to materialize.

### ***Climate change***

Climate change is affecting health in Bangladesh. Coastal belt people being affected by salinity are in danger of non-communicable diseases like hypertension and women are in danger of pregnancy complications like eclampsia. Extremes of weather like heat stroke and cold wave are affecting people health. Vector-borne disease like kala-azar and dengue are re-emerging. MOHFW needs to be more engaged with climate change issues and subsequent preparedness to response.

## Vision

Achieve Universal Health Coverage

## Mission

Promoting and sustaining health and nutrition with containment of population

## Bench Mark and Target for VII FYP

#	Indicator	Value with Year	Bench Mark in 2015	Target in 2021
1	Life expectancy	69 (SVRS 2011 )	70	70
2	Population Growth Rate	1.40 (SVRS 2007)	1.3	1.0
3	Total Fertility Rate (TFR)	2.3 (BDHS 2011)	2.1	1.7
4	Contraceptive Prevalence Rate (CPR)	61.2 % (BDHS 2011)	72	80
5	Share of LAPM	8 %	20	30
6	Unmet demand of eligible couples for FP supplies	13.5 % (BDHS 2011)	9	7
7	Discontinuation rate of contraceptive	36 % (BDHS 2011)	20	15
8	Neonatal Mortality Rate per 1000 live births	24 (MIS 2014)	21	15
9	Infant Mortality Rate per 1000 live births	33 (MIS 2014)	30	15
10	Under 5 mortality Rate per 1000 live births	41 (MIS 2014)	38	35
11	Maternal Mortality Ratio (MMR) (per 100,000 live births)	194 (BMMS 2010)	143	57
12	Underweight under age 5	35% (MIS 2014)	31	29
13	Stunting under age 5	41 % (BDHS 2011)	38	35
14	Wasting under age 5	16% (BDHS 2011)	15	12
15	Prevalence of HIV in MARP	0.7% (Sero surv 2011)	<1	<1
16	TB (all forms)prevalence rate per 100,000 population	411 (MIS 2014)	320	300
17	TB death rate per 100,000 population	45 (DGHS 2011)	38	35
18	New smear + TB case notification rate under DOTS	68% (NTP 2013)	>70	>70
19	Malaria prevalence per 100,000 population in endemic areas	18.4 (MIS 2014)	17	15
20	Malaria death rate per 100,000 population in endemic areas	0.007 (MIS2014)	0.005	0.00
21	Out of Pocket (OOP) as percentage of Total Health Expenditure (THE)	64 % in 2007 (HEU 2012)	64	48
22	Percentage of household facing catastrophic health expenditure	15 % in 2007 (HEU 2012)	15	10

## Strategies

### *Service delivery*

1. For effective utilization of vast and throughout the country spread MOHFW's health and family planning service delivery facilities various innovative approaches will be explored which may comprise review of existing field-based service delivery; decentralization of the management of facilities including involvement of local government institutions like upazila parishad and providing autonomy to hospitals by protecting the interests of poor; diversification of service provision (inclusive of public-private partnership) particularly for hard-to-reach areas; development of a functional referral system involving all levels of facilities; ensuring quality of care etc.
2. Explore the possibility of development of area-based comprehensive health service delivery system through effective cooperation of all existing facilities belong to health and family planning departments, other government departments, NGOs or private sector. Ensuring access and utilization of poor and marginalized will be in the heart of such health service delivery system. Through proper institutional arrangements collaboration and cooperation among MOHFW, LGD/MOLGRD&C, NGOs, private sectors and others will be improved to ensure health, population and nutrition services for urban dwellers particularly those residing in slums and those who are homeless and floating.
3. Effective regulatory mechanism will be developed to protect the people from the private sector service delivery. Private sector will be supported to discharge their corporate social responsibilities by accessing their services for poor and disadvantaged.
4. Explore the possibility of utilizing existing vast informal sector of health service delivery particularly for hard to reach areas ensuring proper quality of care and for health promotion.
5. For containment of population existing family planning programme will be strengthened to deliver regional packages in less performing divisions/pockets; shift existing method-mix of contraceptive use to emphasis long acting permanent method (LAPM); target newly-wed couples, particularly adolescents to delay the first birth; address the existing unmet need and reduce the discontinuation through improving collaboration with health department and others to ensure services of technical persons like doctor, nurse and paramedics.
6. To ensure skilled attendants at birth ( at home and facility) on-going initiatives will be reviewed to make effective use of government trained CSBAs by introducing their proper technical mentoring and supervision as well as increase the number of CSBAs through close collaboration of NGOs and private sector. Deployment of newly trained midwives in newly created posts at union and upazila will also strengthen skilled

attendants at birth. After proper mapping of existing comprehensive emergency obstetrical care (CEmOC) services, new initiatives will be undertaken to ensure access of CEmOC, particularly for hard to reach areas.

7. Newborn care will be strengthened and expanded 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.
8. Through strengthening institutional capacity mainstreaming nutrition using existing health and family planning service delivery (including those belong to non-MOHFW public sector and non-public sector) will be further strengthened by drawing lessons from evidences, as well as facilitating required multisectoral collaboration to combat malnutrition.
9. Further consolidation of on-going efforts to reduce effects of communicable diseases will be undertaken along with massive health promotion and prevention for impending non-communicable diseases. Health promotion efforts will be further strengthened through better coordinated (among different health and family planning programmes, non-public sectors including private) with the aim of informing people about different aspects of health for changing their attitudes and behavior resulting improved health outcomes.
10. Ensuring gender and adolescent friendly health services together with availability of proper information for the adolescent to protect themselves from health hazards.
11. Alternate medical care services will be further strengthened and expanded through proper initiatives in education, service delivery and regulatory arrangements.
12. Health sector's involvement in environmental and climate change issues will be further strengthened together with expansion of medical waste management to cover all medical installations and programmes of public and non-public sectors
13. Appropriate initiatives will be undertaken to manage the emerging and re-emerging health problems together with strengthening emergency preparedness and response capacity by health sector
14. In consultation with MOHFW, MOCHTA and other relevant authority(ies) district-specific health service system will be developed in Chittagong Hill Tracts and institutional arrangements will also be developed for respective Hill District Councils to operate respective district health system by providing required support (financial and technical). Tribal-friendly health services will be ensured through appropriate initiatives for tribal population residing in plain lands. Through initiatives to ensure availability, accessibility,

acceptability and quality of health care for all segments of society particularly women, poor and marginalized equity in health will be taken care.

15. Disability issues will be properly addressed through appropriate preventive, curative and rehabilitative services including expansion of services to cater the need of different types of disabled along with making health-facilities disable-friendly. A comprehensive mental health service delivery plan will be developed with the aim of gradual expansion of service to address the growing need of psychological aspects of health.
16. To uphold health rights and ethics, such issues will be incorporated in all medical, nursing and other education curricula along with proper sensitization initiatives for the existing health service providers.
17. Different existing public sector health facilities committees will be reviewed to ensure proper representations from all sections of society, particularly women, poor and marginalized. Proper functioning of these committees will be ensured for establishing voice and accountability.

#### *Health Workforce*

18. Development of a national health workforce strategy and rolling (5 yearly) plan to guide production (number with skill-mix), deployment with terms and conditions, retention (particularly in rural hard to reach areas), career progression, job satisfaction etc. to address the HWF issues of shortage, mal-distribution, skill-mix imbalance, negative work environment and weak knowledge base.

#### *Information*

19. Further improvement of health information systems through strengthened collaboration of existing bifurcated systems, timely qualitative reporting from all reporting units, use of information to make management decisions at different levels and appropriate use of information technology.

#### *Information communication technology*

20. Full potential of ICT will be explored for ensuring improved health system including use in service delivery, particularly in hard-to-reach areas, education including in-service, information gathering and management efficiency.

#### *Drugs*

21. Strengthening drug regulatory bodies like Directorate General of Drug Administration and Bangladesh Pharmacy Council for ensuring production and dispensing of qualitative

drugs, promotion of rational use of drugs with containment of harmful, useless and ineffective drugs availability.

#### *Equipments*

22. Development of a national policy on management of health care technology in which all stages of the procurement process is identified in the Planning, Supply and Ownership Management (PS&OM) model are addressed.

#### *Financing*

23. Proper implementation of Health Care Financing Strategy 2012 that goals to strengthen financial risk protection and extend health services and population coverage with the aim to achieve universal coverage. Increase public sector contribution in health sector with appropriate initiatives to increase development partners assistance and decrease out of pocket expenditures with prepayment initiative like health insurance

#### *Governance*

24. Strengthen stewardship role, regulatory functions through review of existing regulatory mechanisms in terms of number, structure, mandate, capacity to develop and implement proper regulations required to ensure qualitative, equitable health services of public sector and gradual shift in public sector's role from service delivery to stewardship and regulation for ensuring universal coverage in health.
25. Capacity building of health managers at district and sub-district levels, particularly on data analysis, health planning and monitoring. In addition to facility based health management information system, population based data on community health management information system needs to develop.

#### *Surveillance*

26. Development of well coordinated surveillance system to guide the programme initiatives and their effectiveness

#### *Research*

27. Development of a health sector research strategy with strengthening Bangladesh Medical Research Council to steward and coordinate all health sector research with their proper dissemination so that country can benefit from the application of research findings

#### *Coordination with determinants of health*

28. Appropriate institutional arrangements will be developed to constantly monitor effects of determinants of health as well as regular coordination/liaison with those to prevent/minimize adverse effects and ensure positive effects for health

## **Conclusion**

Despite health challenges from avoidable mortality, persistent poverty, a geographic location prone to natural disasters, limitations in good governance, continued population growth, urbanization coupled with economic and social changes affecting health, particularly through non-communicable diseases, Bangladesh has made enormous advances in health. However to see Bangladeshi people healthier, happier and economically productive to make the country a middle income country by 2021, together with further consolidation of past efforts, new and innovative strategies need to pursue. To create conditions, whereby the people of Bangladesh have the opportunity to reach and maintain the highest attainable standard of health, doing more of the same may not be effective, rather exploration of new ways of doing business is the demand.

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