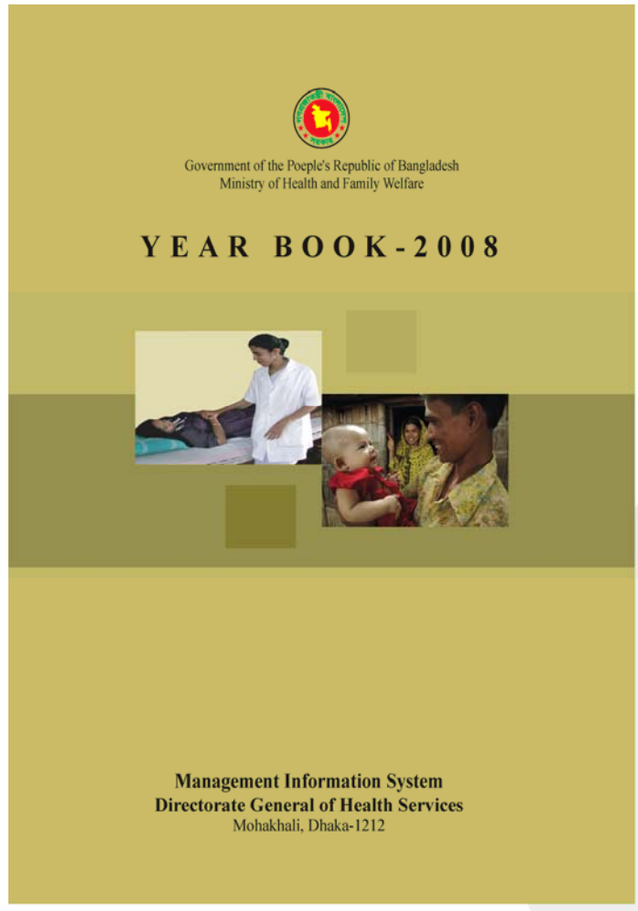
Government of the Poeple's Republic of Bangladesh
Ministry of Health and Family Welfare

# YEAR BOOK-2008

**Management Information System**
**Directorate General of Health Services**
Mohakhali, Dhaka-1212

**Year Book 2008 primarily reports achievements of Health, Nutrition and Population Sector Program under The Directorate General of Health Services for the year 2008**



# Editorial Board

**Minister**
Ministry of Health & Family Welfare
Government of the People's Republic of Bangladesh

# Message

I am pleased to learn that the Management Information Systems under the Directorate General of Health Services (MIS-Health) is going to publish its yearly publication the Year Book 2008. The Year Book is a good source of information for setting up future objectives and goals by the concerned health managers of all tiers. It contains information regarding the Health Services of the Government of Banglaedesh based on Health Nutrition and Population Sector Program (HNPSP). I applaud the MIS-Health for collection and compilation of relevant data and publication of the yearly report.

An well-functioning Electronic MIS can not only generate information but also deliver periodical reports and publications on a regular basis. Thus a sound health information management system can well-support the Ministry of Health and Family Welfare in its policy making role and also in strengthening its co-ordination functions with public sector, NGOs and the private sector. The present Government focuses on 'Digital Health', taking it as an effective tool for efficientt health management.

I would urge all concerned health managers and policy makers to make the best possible use of health information to improve the health status of the people in a cost-effective and time-bound manner. Let us pave our way to better information, better decision, and better health.

Joy Bangla, Joy Bangabandhu.
Long live Bangladesh.

**Dr. A.F.M. Ruhal Haque**

**Adviser to Honorable Prime Minister for**
Health, Family Planing & Social Welfare
Government of the People's Republic of Bangladesh

# Message

Informed decision making is a synonym of knowledge and knowledge involves the application of information within a milieu. In this backdrop, I am immensely pleased to learn that Year Book 2008 containing information regarding the Operational Plans and Project under the Directorate General of Health Services of the Government of Bangladesh is being published.

Keeping track of the main outputs is what an MIS is supposed to do, while the potential use of a sound MIS is much more powerful. A potentially powerful MIS is essential for the DGHS under MOHFW that will keep the main service outputs on track.

The Government gives priority to the development of modern and well-functioning Management Information Systems for Health which will not only fulfill the vision of Digital Bangladesh but also accomplish the Government's mission of commissioning about 18,000 community clinics and ensuring health facilities to every citizen of the country. In the context of inadequate resources, more effective and efficient ways of working are the only solution to keep the health services at an acceptable level. Well coordinated MIS is needed for effective management of health services and thus increasing the scope of health service coverage to more people of impoverished and hard to reach groups.

I would make appeal to all concerned health managers and policy makers to strengthen the culture of information use during project planning and implementation as well as for organizational development instead of simply fulfilling reporting requirements. I aslo hope that Year Book 2008 will be useful for all concerned for building management capacity, enabling informed decision making and strengthening overall health system and thus alleviating poverty and enhancing economic development of Bangladesh.

**Professor Syed Modasser Ali**

**State Minister**
Ministry of Health and Family Welfare
Government of the People's Republic of Bangladesh

# Message

It is definitely a great pleasure for me to know that MIS-Health is going to publish the Year Book 2008 which contains the information on achievements of Operational Plans and Projects run by the Directorate General of Health Services under Ministry of Health and Family Welfare in the fiscal year of 2007-2008. I hope that this Year Book 2008 will give us a clear picture on the activities and achievements of DGHS and to identify the low performing areas for taking necessary actions to improve the overall performance.

Our Government has a firm commitment to improve the health status of the people of Bangladesh with special attention for the poor and the marginalized. We firmly believe that through sincere action we can bring change to the entire system and can accomplish our goals. Revitalizing community clinics as well as attempts to digitize the whole health care delivery systems are two definite instances of our commitments.

I believe that this Year Book will be of much use in intensification of the health care delivery system which will be effectively used not only in planning but also designing, monitoring and evaluation the national and local programs.

I extend my sincere thanks and appreciation to the Director General and his team of MIS for their sincere efforts to bring out this Year Book 2008.

**Dr. Capt (Retd.) Mozibur Rahman Fakir, MP**

**Secretary**
Ministry of Health & Family Welfare
Government of the People's Republic of Bangladesh

# Message

It gives me an immense pleasure to know that the Directorate General of Health Services is going to publish Year Book 2008 containing information regarding the Operational Plans and Projects of Directoate General of Health Services, Ministry of Health and Family Welfare of Government of Bangladesh. I am also pleased to learn that this endeavor is the sequel of the first Year Book 2007.

The concept of publishing previous financial year's activities and achievements in one single report is unique. This will provide us with the valuable scope for critical analysis of our activities, achivements and pitfalls. Year Book 2008 will aslo provide us the opportunities to understand where they need improvement. The Year Book with more updated information on Operational Plans, strategies and basic information about healthcare activities certainly will be very useful to the implementers, administrators, researchers, policy makers and development partners.

The Health Nutrition and Population Sector Program (HNPSP) is created in the line of achieving the objectives of MDGs and PRSP. This report will enable us to understand where we are now with regard to these objectives.

I extand my genuine appreciation to the Director General and his team of MIS for their sincere efforts to bring out this Year Book 2008. I also wish this endeavor to be continued as a regular effort of DGHS.

**Shaikh Altaf Ali**

**Director General of Health Services**
Government of the People's Republic of Bangladesh

# Message

It is definitely a great contentment for me to know that MIS-Health is going to publish the Year Book 2008 to furnish us a picture of operational plans and program performances of health care delivery in Bangladesh.

In the health sector, Health Management Information Systems (HMIS) are more and more being applied, amongest others, to fulfill the-often very demanding-reporting requirements of higher institutional levels such as the Ministry of Healh and Family Welfare. Capacity development at organizational level using information and communication technologies (ICTs) is a relatively new phenomenon to our country. We have virtually started spooling our organization's manual processes being supported or replaced by automated proscesses. An example in the health sector is the digitization of Personal Data sheet (PDS) and introducing electronic communication at all tiers of health management as low as upazilla level. We are trying our best to accomplish our Government's Vision of poverty free digital Bangladesh to be achieved by 2021. A better and more informative Year Book can be furnished next year if we can move with a positive pace.

I would like to urge all concerned health managers and staffs of not only public health sector but also private and NGO sector to uphold the Government's policy of making the service delivery system accountable through enhancing use of digital communication system.

I extend my sincere thanks and appreciation to Professor Abul Kalam Azad, Line Director MIS, DGHS, who has brought the Year Book at this stage. I would like to thank all the Line Directors, concerned officers and staffs of MIS who made their sincere efforts and valuable contributions to make this report.

**Professor Shah Monir Hossain**

**Director, MIS-Health, DGHS**
Government of the People's Republic of Bangladesh

# Message

Year Book 2008 is our second endeavor in its series which will show to the readers the program-wise performances of the Operational Plans of HNPSP under the Directorate General of Health Services. The Management Information System of DGHS has started to introduce automation in reporting system and thus made arrangements for connecting the health points across the country as low as up to upazila levels with Internet. About 800 Internet connectivity points have so far been created. A number of techniques have been applied which would benefit us with easy and rapid communications, rapid transmission of data and their safer storage, quick analysis and interpretation, and use of information in decision making. We have marked our steps with even greater steps towards Digital Bangladesh. We have given web cams to all civil surgeons who are now doing real time video conferencing for management and telemedicine. All upazila and district hospitals will be given web cams in fiscal 2009-10 so that video conferencing becomes one of our great tools in patient care through telemedicine. We have provided mobile phones to all the upazila and district hospitals for introducing mobile phone health care services. The mobile phone numbers have been circulated in the hospitals' respective catchments areas and people can now enjoy health care advices from medical doctors without traveling to hospitals and without paying money.

I am grateful to the Hon'ble Minister for Health & Family Welfare Professor A F M Ruhal Haque for the continuous valuable advice and inspirations towards making our way in the right directions and to the Hon'ble Adviser to the Prime Minister for Health, Family Planning and Social Welfare Professor Syed Modasser Ali for his clear cut and specific suggestions. I am specially indebted to the Secretary, MOHFW Mr. Sheikh Altaf Ali and to the Director General of Health Services Professor Shah Monir Hossain for their administrative supports that gave us courage for taking the bold steps. The development partners and our donors enriched our works with additional qualities that provided us the satisfaction of good jobs. The Line Directors, the Program Managers and the Deputy Program Managers are the contributors of information for this Year Book. I show my heartfelt thanks to them. Finally, our staffs of MIS, both in head office as well as in peripheral offices, our health managers and health providers across the country deserve sincere thanks as their performances made the basis of the data which we served for the readers. The readers, you are the ultimate admirers for whom we took this initiative to publish this Year Book again for the second time. Please advice us so that we can improve the Year Book.

**Professor Abul Kalam Azad**

# CONTENT

# ACRONYMS

| | |
|---|---|
| ADB | Asian Development Bank |
| ADP | Annual Development Programme |
| AEFI | Adverse Events Following Immunization |
| AFP | Acute Flaccid Paralysis |
| AIDS | Acquired Immunodeficiency Syndrome |
| APR | Annual Program Review |
| ARC | American Red Crescent |
| ANC | Ante-natal Care |
| ARI | Acute Respiratory Infection |
| Anes | Anesthesiology |
| BBS | Bangladesh Bureau of Statistics |
| BCC | Behavior Change Communication |
| BCG | Bacillus Calmette Guerin |
| BCS | Bangladesh Civil Service |
| BDHS | Bangladesh Demographic and Health Survey |
| BIDS | Bangladesh Institute for Development Studies |
| BINP | Bangladesh Integrated Nutrition Project |
| BNHA-2 | Bangladesh National Health Accounts,1999-2001 |
| BMI | Body Mass Index |
| BMMS | Bangladesh Maternal Mortality Survey |
| BRAC | Bangladesh Rural Advancement Committee |
| BHE | Bureau of Health Education |
| BMA | Bangladesh Medical Association |
| BSA | Bangladesh Society of Anesthesiologists |
| BSMMU | Bangabandhu Sheikh Mujib Medical University |
| CDC | Communicable Disease Control |
| CMCH | Chittagong Medical College Hospital |
| CME | Centre for Medical Education |
| CMSD | Central Medical Stores Depot |
| CPR | Contraceptive Prevalence Rate |
| C-section | Caesarean Section |
| CBN | Cost of Basic-Needs (method) |
| CC | Community Clinic |
| CDD | Control of Diarrheal Diseases |
| CFP | Conceptual Framework Paper |
| CGA | Comptroller General of Accounts |
| CIDA | Canadian International Development Agency |
| CNP | Community Nutrition Promoter |
| CSO | Community Support Organization |
| DDC&H | Dhaka Dental College & Hospital |
| DGFP | Directorate General of Family Planning |
| DGHS | Directorate General of Health Services |
| DBRH | Demand Based Reproductive Health |
| DCA | Development Credit Agreement |
| DDA | Directorate of Drug Administration |
| DfId | Department for International Development (UK) |
| DG | Director General |
| DGIS | Directoral General for International Co-operation |
| DOTS | Directly Observed Treatment-Short Course |
| DP | Development Partner |
| DPA | Direct Project Aid |
| DH | District Hospital |
| DMC | Dhaka Medical College |
| DMCH | Dhaka Medical College Hospital |
| EmOC | Emergency Obstetric Care |
| EPI | Expanded Program on Immunization |
| ESD | Essential Service Delivery |
| ECNEC | Executive Committee of National Economic Council |
| EDPT | Early Diagnosis and Prompt Treatment |
| ERD | Economic Relation Division |
| EU | European Union |
| FMAU | Financial Management and Audit Unit |

| | |
|---|---|
| IPH | Institute of Public Health |
| ITHC | Integrated Thana Health Complex |
| IPM | Individual Performance Management |
| i-PRSP | Interim Poverty Reduction Strategy Paper |
| IT | Information Technology |
| ITMN | Insecticide Treated Mosquito Nets |
| IUD/IUCD | Intra-Uterine(Contraceptive) Device |
| IYCF | Infant and Young Child Feeding |
| JICA | Japan International Co-operation Agency |
| KMCH | Khulna Medical College Hospital |
| LD | Line Director |
| LTSO | Long Term Strategy Options |
| LAN | Local Area Network |
| LBW | Low Birth Weight |
| LLP | Local Level Planning |
| M&E | Monitoring & Evaluation |
| M/F | Male / Female ratio |
| MOLGRDC | Ministry of Local Gov. Rural Development & Co-operatives |
| MOU | Memorandum of Understanding |
| MSA | Management Support Agency |
| MTR | Mid Term Review |
| MATS | Medical Assistant Training School |
| MBDC | Mycobacterial Disease Control |
| MC | Medical College |
| MCH | Maternal and Child Health |
| MCH | Medical College Hospital |
| MCWC | Maternal and Child Welfare Center |
| MDG | Millennium Development Goals |
| MIS | Management Information System |
| MMR | Maternal Mortality Ratio |
| MNH | Maternal and Neonatal Health |
| MO | Medical Officer |
| MOHFW | Ministry of Health & Family Welfare |
| MP | Member of Parliament |
| MSD | Medical Sub Depot |
| NICVD | National Institute of Cardiovascular Diseases |
| NIDCH | National Institute of Diseases of the Chest and Hospital |
| NICH&R | National Institute of Cancer Hospital & Research |
| FMRP | Financial Management Reforms Project |
| FP | Family Planning |
| FY | Financial Year |
| FWA | Family Welfare Assistant |
| GHDCH | Govt. Homeopathic Degree College Hospital |
| GOB | Government of Bangladesh |
| GTC | Government Tibbia College |
| GDP | Gross Domestic Product |
| GUADCH | Govt. Unani & Ayurved Degree College & Hospital |
| HDI | Human Development Index |
| HDS | Health and Demographic Survey |
| HEU | Health Economics Unit |
| HFWC | Health and Family Welfare Centre |
| HIV | Human Immuno-deficiency Virus |
| HKI | Helen Keller International |
| HLIC | High Level Inter-ministerial Committee |
| HNP | Health Nutrition and Population |
| HPSP | Health and Population Sector Program |
| HIES | Household Income and Expenditure Survey |
| HA | Health Assistant |
| HEB | Health Education Bureau |
| HIU | Health Information Unit |
| HMPD | Health Manpower Development |
| HNPSP | Health Nutrition & Population Sector Program |
| HOSP | Hospital |
| HR | Human Resource |
| ICOVED | Integrated Control of Vector Borne Disease |
| IDA | International Development Agency |
| IMCI | Integrated Management of Childhood Illness |
| IMED | Implementation, Monitoring & Evaluation Division |
| IMF | International Monetary Fund |
| IMR | Infant Mortality Rate |
| IEDCR | Institute of Epidemiology, Disease Control & Research |
| IHT | Institute of Health Technology |
| IPGMR | Institute of Post Graduate Medicine and Research |
| IPHN | Institute of Public Health Nutrition |

# BANGLADESH: BASIC INFORMATION 2008

| | Name | | | Source |
|---|---|---|---|---|
| **A. GEOGRAPHY** | | | | |
| 1 | Location | | Between 20°34' and 26° 38' north latitude and between 80°01' and 92° 41' east longitude | Staistical Pocket Book of Bangladesh 2008 |
| 2 | Boundary | | North: India West: India South: Bay of Bengal East: India & Myanmar | Staistical Pocket Book of Bangladesh 2008 |
| 3 | Area (Sq.Km.) | | 147,570 Sq.Km. (56977 Sq. miles) | Staistical Pocket Book of Bangladesh 2008 |
| 4 | Territorial Water | | 12 Nautical miles | Do |
| 5 | Standard Time | | GMT + 7 hrs | |
| 6 | Rainfall | | 203mm/month | |
| **B. ADMINISTRATION** | | | | |
| 7 | Division | | 6 | Statistical Pocket Book Bangladesh 2008, BBS Health MIS, 2009 BBS, 2008 |
| | City Corporation | | 6 | |
| | Metropolitan City | | 4 | |
| | Municipality | | 308 | |
| 8 | Districts | | 64 | |
| | Upazila | | 482 | |
| 9 | Union | | 4,498 | |
| 10 | Mouza | | 59,229 | |
| 11 | Village (approximately) | | 87,310 | |
| 12 | Household | | 2,54,90,822 | |
| 13 | Average size of Household | | 4.7 | SVRS, 2007 |
| **C. DEMOGRAPHY** | | | | |
| 14 | Population (2001 Census) | Total | 124.355 million | Statistical Pocket Book Bangladesh 2008, BBS |
| | | Male | 64.091 million | |
| | | Female | 60.264 million | |
| 15 | Population Projected July 2007 | Total | 143.91 million | Statistical Pocket Book Bangladesh 2008, BBS |
| | | Male | 74.09 million | |
| | | Female | 69. 81 million | |
| 16 | Sex Ratio (Male per 100 Female) | | 106.0 | Statistical Pocket Book Bangladesh 2008, BBS |
| 17 | Under 5 Population (in %) | | 11.7 | SVRS, 2007, BBS |
| 18 | Under 00-14 Population (in %) Both sexes | | 35.1 | SVRS, 2007, BBS |
| 19 | Female Population (15-49 yrs in %) | | 53.0 | SVRS, 2007, BBS |
| 20 | Population (60 yrs + in %) Both sexes | | 6.6 | SVRS, 2007, BBS |
| 21 | Population Density per sq.km. | | 966 | SVRS, 2007, BBS |

| | | | | |
|---|---|---|---|---|
| 22 | Crude Birth Rate (Per 1,000 pop.) | | 20.9 | SVRS, 2007, BBS |
| 23 | Crude Death Rate (Per 1,000 pop.) | | 6.2 | SVRS, 2007, BBS |
| 24 | Population Growth Rate (%) | | 1.40 | SVRS, 2007, BBS |
| 25 | Total Fertility Rate (birth per women 15-49 yrs) | | 2.39<br>2.70 | SVRS, 2007, BBS<br>BDHS, 2007 |
| 26 | Gross Reproduction rate | | 1.17 | SVRS, 2007, BBS |
| 27 | Net Reproduction rate (NRR) | | 1.14 | SVRS, 2007, BBS |
| 28 | Urban Population (in millions) | | 35.7 | SVRS, 2007, BBS |
| 29 | Life Expectancy at Birth | Both sexes | 66.6 years | SVRS, 2007, BBS |
| | | Male | 65.4 years | SVRS, 2007, BBS |
| | | Female | 67.9 years | SVRS, 2007, BBS |
| 30 | Mean Age at First Marriage | Male | 23.6 years | SVRS, 2007, BBS |
| | | Female | 18.4 years | SVRS, 2007, BBS |
| **D. HEALTH STATUS** | | | | |
| 31 | Infant Mortality Rate (per 1000 live birth) | | 52 | SVRS, 2007, BBS<br>BDHS, 2007 |
| 32 | Maternal Mortality Ratio (per 1,000 live births) | | 3.37<br>3.20 | SVRS, 2007, BBS<br>BMMS, 2001 |
| 33 | Neonatal Mortality Rate (per 1,000 live births) | | 31<br>37 | SVRS, 2007, BBS<br>BDHS, 2007 |
| 34 | Under 5 Mortality Rate (per 1,000 live births) | | 60<br>65 | SVRS, 2007<br>BDHS, 2007 |
| 35 | Percent of population using safe drinking water (Tap & Tubewell) | National | 98.8 | SVRS, 2007, BBS |
| 36 | Percent of population using (water seal) latrines | | 54.24 | SVRS, 2007, BBS |
| 37 | Prevalence of night blindness among pre school children (HKI 2005) | | 0.04 | Director, IPHN, Mohakhali. |
| 38 | % of births attended by skilled personnel | | 17.8 | BDHS , 2007 |
| | % of women received at least one antenatal care | | 51.7 | BDHS, 2007 |
| | % of mother received PNC from a trained provider within 42 days of delivery | | 21.3 | BDHS, 2007 |
| 39 | Malaria slide positivity rate (positive per hundred slide examined) | | 8.47 | DGHS, 2008 |
| 40 | Malaria incidence rate per 1000 population | | 0.63 | DGHS, 2008 |
| 41 | TB incidence rate per 100000 population | | 99 | DGHS, 2008 |
| 42 | % of smear-positive pulmonary TB cases detected put under DOTS | | 72% | TB Annual Report 2008 NTCP, DGHS. |
| 43 | % of smear -positive pulmonary TB cases detected cured under DOTS | | 92% | |
| 44 | % urban population with access to improved sanitation | | 77.1 | SVRS, 2007, BBS |
| 45 | % of <5 children with diarrhea treated with ORT (ORS or home made solution) | | 81.2 | BDHS, 2007 |
| 46 | % of <5 children with symptoms of ARI seeking care from trained provider | | 28.13 | BDHS, 2007 |
| **E. EDUCATION and ECONOMY** | | | | |
| 47 | Per Capita GDP (in U.S.$) 2007-08 | | 554 | Statistical Pocket Book Bangladesh 2008, BBS |
| 48 | Per Capita Income (in US$) 2007-08 | | 599 | |
| 49 | Per capita public health expenditure on H&FP (Taka) | | 281 | BBS, 2006 |
| 50 | Adult Literacy Rate (Pop.15+), (Both sexes) | | 56.3 | SVRS, 2007, BBS |
| **F. HEALTH SERVICES PROVISION** | | | | |
| 51 | No. of Hospitals in Health Sector | | 595 | DGHS (MIS) 2009 |
| | No. of Non. Govt. Hospitals (Regtd. by DGHS) | | 2249 | March 2009 DGHS |

| | | | | |
|---|---|---|---|---|
| 52 | No. of Beds in Health Sector | Functioning | 37,721 | MIS, 2008 (Dec) |
| 53 | No. of Beds in Private Sector (Regtd by DGHS) | | 36,244 | DGHS (Hospital) 2009 |
| 54 | No. of Registered Physicians (April 2009) | | 49,994 | BMDC, 2009 |
| 55 | No. of Registered Dental Surgeon (April -2009) | | 3481 | BMDC, 2009 |
| 56 | No. of Government Medical colleges | | 18 | DGHS (MIS) 2008 |
| 57 | No. of Private Medical colleges | | 41 | DGHS, (ME) 2008 |
| | No. of Private Dental colleges | | 11 | DGHS, 2008 |
| 58 | No. of Private Institute of Health Technology (IHT) | | 39 | DGHS, (MIS) 2008 (Dec) |
| 59 | No. of Personnel under DGHS (Sane-110144) | Existing | 79,896 | DGHS, 2009 (June) |
| 60 | No. of Doctors under Health Services (Sane-19243 | Existing | 12382 | DGHS, (MIS) 2009 (June) |
| 61 | No. of Registered Nurses (as on April-2009) | | 23,729 | DGHS, (MIS) 2009 (June) |
| 62 | No. of Nurses in Public sector | Existing | 14,377 | DNS, 2009 |
| 63 | No. Registered Mid - wives | | 22,253 | BNC, 2009 (April) |
| 64 | No. of Trained Skilled Birth Attendance | | 5000 | UNFPA, 2009 (June) |
| **G. HEALTH SERVICES** | | | | |
| 65 | EPI & Vit-A Coverage | DPT3 | 95% | Bangladesh EPI Coverage Evaluation Survey 2007 Expanded Programme of Immunization, DGHS & BDHS, 2007 |
| | | BCG | 90%<br>96.8% | |
| | | Measles | 96% | |
| | | TT2 | 94% | |
| | | HAP-B3 | 95% | |
| | | VIT-A | 93%<br>88.3% | |
| | | OPV3 | 92%<br>90.8% | |
| | | Fully Immunized | 75% | |
| 66 | Population per Physicians | | 2860 | DGHS 2008 |
| 67 | Population per Bed (Beds of Health Sector + Regtd.Privet Hospital) | | 1860 | DGHS 2009 |
| 68 | Physician to Nurse Ratio | | 2:1 | DGHS 2008 |
| 69 | Population per Nurse | | 5720 | DGHS 2008 |
| **H. PLACE OF DELIVERY** | | **Age of birth** | | |
| 70 | Public health facility | <20 | 7.6 | BDHS 2007 |
| | | 20-34 | 7.0 | |
| | | 35+ | 4.0 | |
| 71 | Private & NGO health facility | <20 | 6.5 | BDHS 2007 |
| | | 20-34 | 8.2 | |
| | | 35+ | 6.9 | |
| | In health facility | | 15.0 | BDHS 2007 |

| | | | | |
|---|---|---|---|---|
| 72 | Home | <20 | 85.7 | BDHS 2007 |
| | | 20-34 | 84.3 | |
| | | 35-49 | 88.3 | |
| 73 | Other | <20 | 0.2 | BDHS 2007 |
| | | 20-34 | 0.3 | |
| | | 35+ | 0.1 | |
| **I. PERCENT OF DELIVERY ATTENDED BY** | | | | |
| 74 | Qualified Doctor | <20 | 12.0 | BDHS 2007 |
| | | 20-34 | 13.2 | |
| | | 35+ | 10.2 | |
| 75 | Nurse/midwife/paramedic | <20 | 5.7 | BDHS 2007 |
| | | 20-34 | 5.2 | |
| | | 35+ | 2.1 | |
| 76 | Traditional birth attendant | <20 | 11.6 | BDHS 2007 |
| | | 20-34 | 10.4 | |
| | | 35+ | 10.2 | |
| 77 | Untrained birth attendant | <20 | 63.4 | BDHS 2007 |
| | | 20-34 | 62.1 | |
| | | 35+ | 63.6 | |
| 78 | Relatives and friends | <20 | 5.7 | BDHS 2007 |
| | | 20-34 | 6.2 | |

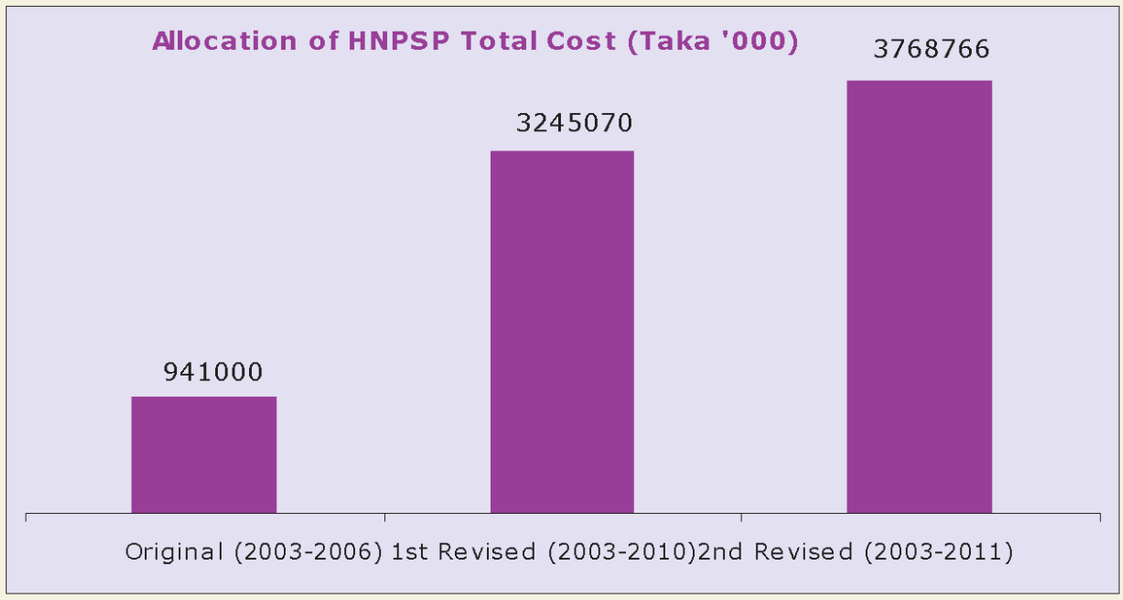
**Sources**

1 Directorate General of Health Services (DGHS)-MIS, Hospital,Medical Education.
2 Bangladesh Bureau of Statistics (BBS), Statistics Division, Ministry of Planning.
3 Bangladesh Demographic & Health Survey-2007 (BDHS), NIPORT.
4 Human Resources Development (HRD) Unit, 2008, Ministry of Health & Family Welfare, Bangladesh Secretariat, Dhaka.
5 Report of Sample Vital Registration System 2007 (SVRS).
6 Bangladesh Medical and Dental Council (BMDC).
7 Bangladesh Nursing Council (BNC).

# Introduction

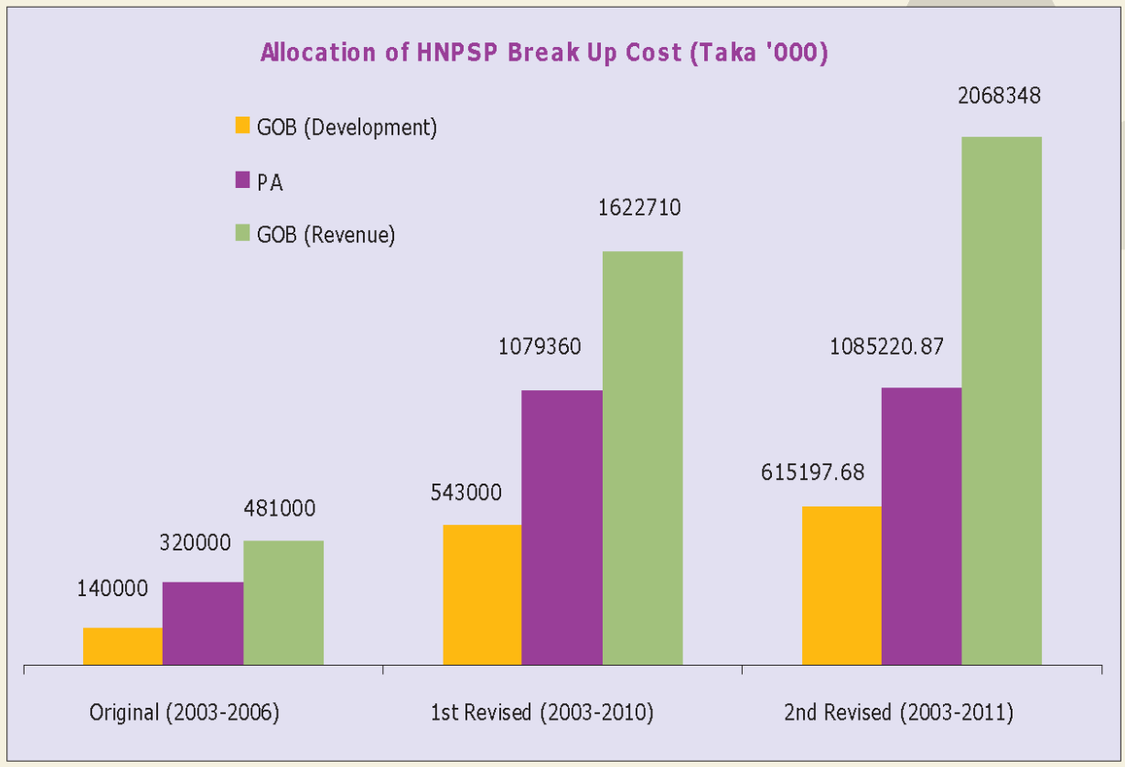
Health, Nutrition and Population Sector Program (HNPSP) under the Ministry of Health and Family Welfare (MOHFW) contains 38 Operational plans and 11 projects of which 19 Ops and 6 projects are under Directorate General of Health Services, 9 in DGFP, 7 in MOHFW, 1 in each of Nursing Directorate, Drug Administration and Central Medical Stores and Depot. The Govt. of Bangladesh is committed to ensure good status of health nutrition and livelihood of its citizens. To facilitate implementation of this commitment it needs dynamicity in decision making and program operation. This book is the presentation of program wise performances of the Ops and projects under DGHS. In the introduction a short description of current status of RPIP (2nd Revised) of HNPSP given. Duration of the program 2nd Revised: July 2003 – 2011.

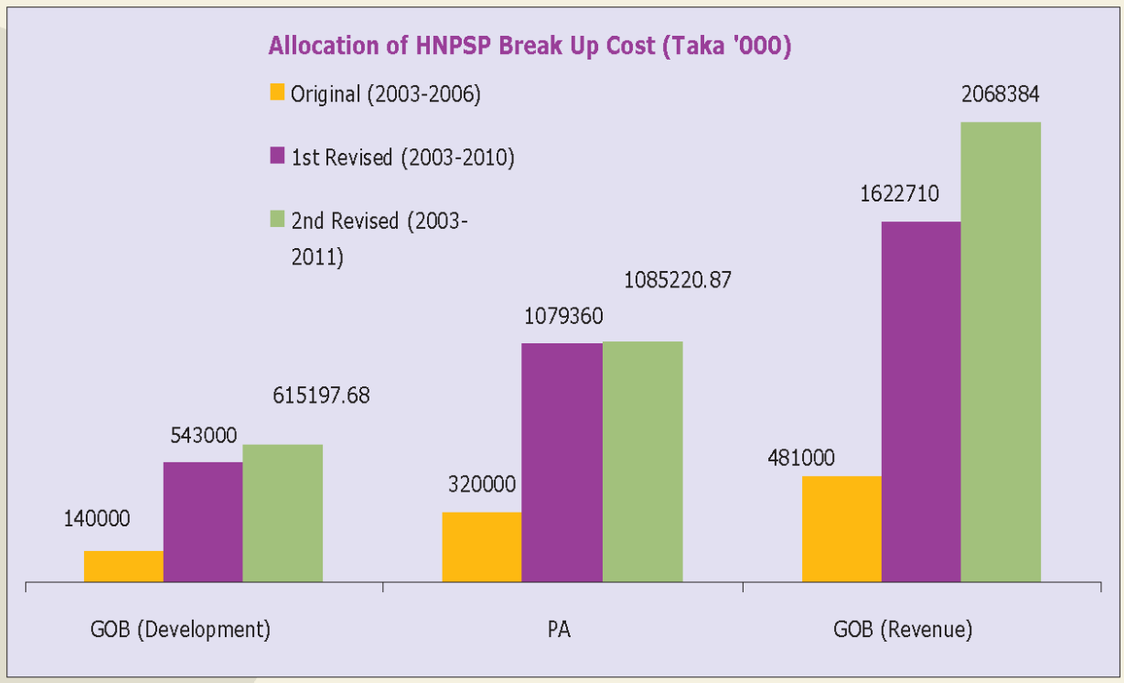
In the proposed 2nd revised PIP total cost of HNPSP has increased by Taka 523696.55 Lakhs – around 16% compared to the 1st revised. This is due to extension of programme for another year beyond 2010, accommodate new initiatives required to undertake in response of changed scenario like bird flue, kala- azar, natural disasters like cyclone / Sidor and also to accommodate recommendation of the Mid- term Review (MTR-2008) of HNPSP, meeting the MDG's and improving health care services




## Implementing Agency

Ministry of Health and Family Welfare (MOHFW) and its attached departments such as Directorate General of Health Services (DGHS), Directorate General of Family Planning (DGFP), Department of Nursing & Education, Department of Drug Adminstration. National Institute of Population Research & Training


Allocation of HNPSP Break Up Cost (Taka '000)
GOB (Development)
PA
GOB (Revenue)
140000
320000
481000
543000
1079360
1622710
615197.68
1085220.87
2068348
Original (2003-2006)
1st Revised (2003-2010)
2nd Revised (2003-2011)


Allocation of HNPSP Break Up Cost (Taka '000)
Original (2003-2006)
1st Revised (2003-2010)
2nd Revised (2003-2011)
140000
543000
615197.68
320000
1079360
1085220.87
481000
1622710
2068384
GOB (Development)
PA
GOB (Revenue)

(NIPORT). National Nutrition Programme (NNP). Construction and Maintenance Management Unit (CMMU) and Public Works Department (PWD) of the Ministry of Housing and Public Works have been implementing the programme throughout the country.

## Goal

Within the overall development policy framework of the Government of Bangladesh the goal of the Health, Nutrition and Population Sector Program (HNPSP) is to achieve sustainable improvement in health, nutrition and reproductive health, including family planning,status of the people,particularly of vulnerable groups, including women, children, the elderly and the poor with the ultimate aim of their economic emancipation and physical social, mental and spiritual well being and thus contribute to the poverty recuction of the country.

## Priority Objectives

Within the context of the PRSP the HNPSP has been emphasising reduction of severe malnutrition high mortality and fertility promoting healthy life styles and reducing risk factors to human health from environmental, economic socialand behavicural causes with asharp focus on improving the health of the poor, Priority objectives, by which the success of HNPSP be measured are (i) reducing MMR (ii) reducing malnutrition (iii) reducing infant and under five mortality (iv) recucing the burden of TB and other diseases and (v) prevention & control of non-communicable diseases including injuries. The table below shows the priority objectives with unit of measurement, benchmark figure and projected targets.

**Table 1: HNSP priority objectives and indicators with benchmarks and targets**

| HNPSP Priority Objectives | Units of Measurement | Benchmark (with Reference Period and Source) | Achievement with reference period & source | Projected Target Mid 2011 |
|---|---|---|---|---|
| Reducing Maternal Mortality | Proportion of births attended by skilled health personnel | 15.5% (BDHS 2004) | 18% (BDHS 2007) | 40% |
| | Maternal deaths per 1,000 live births | 3.2 (BMMS, 2001) | 2.75 (ESD,HS 2005) | 2.4 |
| Reducing the Total Family Rate | Lifetime number of births per woman at current period age - specific fertility rates | 3.00 (BDHS 2004) | 2.7 (BDHS 2007) | 2.2 |
| Reducing Malnutrition | % of underweight children age 6 to 59 months (weight -for -age Z - score <-2) | 50.9% (Child Nutrition Survey of Bangladesh 2000) | | 36% |

| HNPSP Priority Objectives | Units of Measurement | Benchmark (with Reference Period and Source) | Achievement with reference period & source | Projected Target Mid 2011 |
|---|---|---|---|---|
| | % of severely underweight children age 6 to 59 months | 12.9% (Child Nutrition Survey of Bangladesh 2000) | | <2% |
| Reducing infant and Under -five Mortality | Infant deaths per 1,000 live births | 65.0 (BDHS, 2004) | 52 (BDHS 2007) | 37 01 |
| | Deaths in children under 5 per 1,000 live births | 88.0 (BDHS, 2004) | 65 (BDHS 2007) | 52 |
| Reducing the Burden of HIV/AIDS, TB, Malaria and Others diseases | Case detection: Proportion of estimated new smear positive TB cases detected in a given year | 38% (NTP, 2003) | 72% (NTP 2007) | 70% |
| | Cure Rate: Proportion of registered smear positive TB cases successfully treated under DOTS in a given year | 83.7% (NTP, 2003) | 92% (NTP 2007) | Over 85% |

## Development Partners Support

An amount of Taka 955722.30 lakh (US$) 1,375.14) of Development Partners Support (DPS) is committed for the HNPSP of MOHFW from January 2005 to 2011. DP- Wise Support to HNPSP is shown in The table below:

## Development Partners Support from 2005 to 2011:

| SL. No | Source | (In million US$) Pooled | (In million US$) Non Pooled | Total | |
|---|---|---|---|---|---|
| | | | | In million US$ | In lakh Taka |
| 1 | IDA | 320.74 | | 320.74 | 222,914.30 |
| 2 | DFID &EC | 194.80 | 14.58 | 209.38 | 145,519.10 |
| 3 | EU | 108.37 | | 108.37 | 75,317.15 |
| 4 | The Netherlands | 45.00 | | 45.00 | 31,275.00 |
| 5 | SIDA | 75.87 | | 75.87 | 52,729.65 |
| 6 | CIDA | 5.05 | 193.76 | 198.81 | 138,172.95 |
| 7 | KFW | 55.07 | 9.00 | 64.07 | 44, 528.65 |
| 8 | GTZ | | 1.53 | 1.53 | 1,063.35 |
| 9 | UNFPA | 1.00 | 10.00 | 11.00 | 7,645.00 |
| 10 | UNICEF | | 14.68 | 14.68 | 10,202.60 |
| 11 | WHO | | 82.01 | 82.01 | 56,996.95 |
| 12 | Japan Govt. | | 7.06 | 7.06 | 4,906.70 |
| 13 | USAID | | 90.40 | 90.40 | 62,828.00 |
| 14 | GFATM | | 76.07 | 76.07 | 52,868.65 |
| 15 | GAVI | | 41.83 | 41.8 3 | 29,071.85 |
| 16 | SFD | | 1.05 | 1.05 | 729.75 |
| 17 | ARC | | 3.77 | 3.77 | 2,620.15 |
| 18 | IDB | | 3.00 | 3.00 | 2,085.00 |
| 19 | JICA | | 6.14 | 6.14 | 4,267.30 |
| 20 | GFD | | 2.60 | 2.60 | 1,807.00 |
| 21 | ORBIS | | 0.33 | 0.33 | 229.35 |
| 22 | Sight Saver | | 1.08 | 1.08 | 750.60 |
| 23 | Investment Income | 10.35 | | 10.35 | 7,193.25 |
| | **Total** | **816.25** | **558.89** | **1,375.14** | **955722.30** |

Currently the OPs for fiscal year 20082009 are being implemented. We must know the progress of implementation of HNPSP so that we understand how much momentum we should provide to implement of the new OPs (20082009 and onward). All the OPs, collectively, result in a gigantic program with hundreds of activities under different Line Directors.

A Year Book can partially help to meet the purpose. The Year Book will also help to know if any redirection would be needed in the program activities. These experiences would be very much useful and in shaping the Government's and development partners' vision for the future. This Book principally focuses on programs and future plans.

# Essential Service Delivery

## Introduction

Essential Service Delivery (ESD) under the Directorate General of Health services address as Reproductive Health Care, Child Health Care, Limited Curative Care and Health Care Waste Management. Behavior Change Communication is a cross-cutting issue of high priority for the ESD and is also essential for other level of health care.

## Objective of Operational Plan

To ensure Primary Health Care through essential services at Upazila level and below.

## Components

- Support Service and Co-ordination
- Reproductive Health
- Child Health: EPI, IMCI, CDD, ARI and School Health
- Limited Curative Care
- Urban Health Services
- Medical Waste Management

## Support Service & Co-ordination

## Objectives

- To provide inputs to all newly constructed and upgraded health facilities at the level of Upazila and below.
- To ensure support and co-ordination among all the components of ESD and others.
- To establish referral linkage among public-public and public- private and NGO health facilities.
- To monitor and accelerate maximum utilization of beds including resources of the health facilities at the level of Upazila and below.

## Activities

- Procurement and supply and utilization of Medical Instrument and Equipment to all newly constructed and upgraded health facilities.
- Provide necessary fund to all cost centers (Dev)
- Provide ambulances to the newly constructed health facilities.
- Provide furniture and other accessories to the newly constructed and upgraded health facilities.
- Provide MSR and diet for the increased beds of the upgraded and new health facailities.

## Achievements

- 270 UHCs are in upgradation process from 31 beds to 50 beds.
- Administrative approval has been received against 153 upgraded UHC and 50 other health facilities.
- Construction of 107 upgraded UHCs have been completed.
- 82 upgraded UHCs have been made functioning with 50 beds and rest (construction completed and handed over) will be made functioning soon.
- 5 new UHCs of 31 beds have been constructed and 4 have been made functioning locally.
- 5 Trauma Centers of 20 beds have been constructed, handed over and made functioning locally.
- Construction of 7 Trauma Centers of 20 beds is in process.
- Construction of 12 hospitals of 10 beds has been completed, handed over and made functioning locally. Construction of 3 hospitals of 10 beds is in process.

- 10 hospitals of 20 beds have been constructed, handed over and made functioning locally. Construction of 9 hospitals of 20 beds is in process.
- Procurement and supply of steel and wooden furniture to 34 health facilities at the level of Upazila and below.
- Supply of medical equipment and instrument to 205 health facilities of different categories at the level of Upazila and below.
- Procurement of medicine and MSR for increased beds of 19 upgraded UHC and 8 other facilities.
- Procurement of medicines under performance based financing for all the health facilities at the level of Upazila and below including community clinics.

### Future Plan

- All UHCs of the country will be upgraded to 50 beds in phases.
- Recruitment of Health Volunteers on temporary basis against the vacant posts of Health Assistants till regular appointment.
- Procurement of Vehicles (Four Wheel Jeep/Pick-up) for UHCs for regular field supervision, monitoring and quick movement of Medical Teams along with necessary logistics during any disaster, e.g. cyclone, tornado, Sidr, natural flood, earth quake or any other calamity.
- To provide necessary inputs to all the health facilities at the level of Upazila and below irrespective of upgradation or new construction for the improvement of health services particularly for the poor and vulnerable groups of people of rural Bangladesh.
- Capacity development of different categories officers and staff through training and workshops.

## Reproductive Health Program

### Implementation Process

As mentioned in the Operational Plan of RH, ESD, DGHS. Other partners involvement in implementing the activities are line directorates of In-Service Training, Improved Hospital Services Management, Health Education and Promotion, Management Information System, Central Medical Store Depot, professional bodies (Bangladesh Medical Association, Obstetrical and Gynaccological Society of Bangladesh) and Non-Government Organizations – BRAC, CARE, Engender Health, Naripokkho, Save the Children (USA).

### Background

Emergency Obstetric Care (EOC) program has been started under maternal and neonatal health care (MNHC) project in 1993 and ended in 1998. Geographical coverage of this project was in 31 Upazillas of 4 Districts. Afterwards, this project was incorporated in HPSP (1998-2003) as Reproductive Health Program of ESP (now ESD). During this period Women's Right of Life and Health (WRLH) project was initiated through UNICEF to provide Comprehensive EOC service at the District Hospitals and Upazila Health Complexes. The RH program has been given priority in HNPSP, initially planned for 2003-2006, now incorporated in the Revised Project Inplementation Plant (2003-2011) of HNPSP.

Lack of available maternal health services at and around birth is one of the contributing factors to high maternal mortality. Leading causes of maternal mortality are hemorrhage, abortion, injuries, eclampsia, sepsis and obstructed

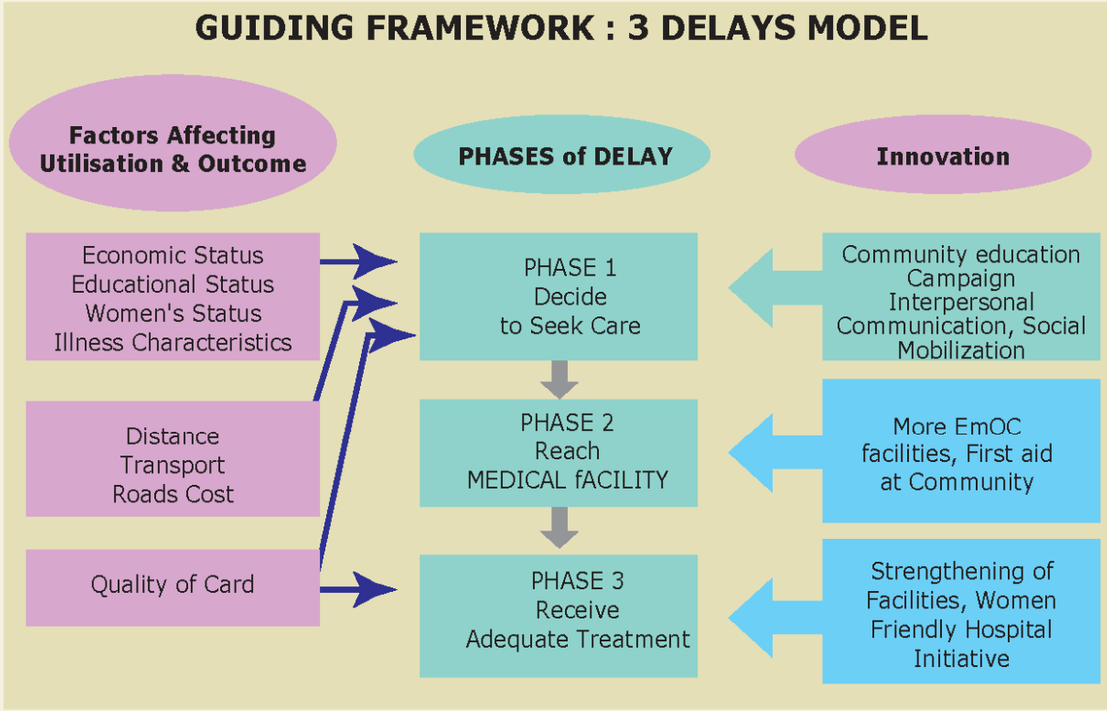
labor. Maternal malnutrition is an underlying cause of many deaths. Nearly half of all pregnant women suffer from malnutrition and anemia that contributes to low-birth-weight babies and neonatal mortality. To address these issues GoB plan is for provision of institutional delivery 35% targats by 2015 by strengthening emergency obstetrical care services, training and kill birth Attendants and provision of Maternal Health Voucher Scheme and Maternal and Neonatal Program.

**Objectives** (by the year 2010)

- Increase met need of EmOC to 70% from 27%.
- Increase uptake of ANC (3 visits) to 60%.
- Increase Skilled Attendance at birth to 50% from 13%.
- Increase PNC to 30% from 2%.
- Accreditate facilities as woman friendly with provision of services for women subject to violence.
- Ensure skilled human resources to provide midwifery and Comprehensive EmOC services in all District Hospitals and 162 Upazilla Health Complexes; midwifery and Basic EmOC services in remaining UHCs.
- Ensure appropriate personnel in every static centre to be able to provide the full package of appropriate MNHS.
- Promote stakeholders' participation and specially focuses on the role of men.
- Emphasize communication for behavior change and development.

**Geographical Coverage**

During Health & Population Sector Program (1998-2003) and under the project Women's Right to Life and Health (WRLH projects of UNICEF, 120 Upazila Health Complexes (UHCs) and 59 District Hospitals have been selected for comprehensive EOC services following UN process indicators. Following local level initiatives, now 132 UHCs and 59 District



Hospitals have been designated for rendering comprehensive EOC.

**Guiding Frame Work:** Three Delays model

**Related Strategies (with justification)**

- Creating a supportive environment for Comprehensive and Basic Emergency Obstetric Care (CEmOC and B-EOC) Service delivery at facility level through upgradation of facilities, training of manpower, provision of equipment and supplies and development of referral linkages
- Social mobilization to raise awareness especially among the community people about problems during pregnancy, labor and the postnatal/neonatal period and obstetric complications and the need for adequate rest during pregnancy and nursing time. Most common causes of maternal deaths in Bangladesh are bleeding, sepsis, pre-eclampsia, unsafe abortion, obstructed labor and indirect causes which are aggravated by three delays (delay in decision making on seeking medical help, delay in transportation and delay in getting services from the facility). BCC should be addressed on these issues and the need for better maternal and early childhood nutrition
- Skilled birth attendance, competency-based six months training on basic midwifery for community health workers (FWAs and female HAs) has been already begun. Expansion /scaling up from the piloting phase to a national SBA Training program up to the year 2010 has been agreed by MOHFW. This national plan would increase the number of certified and registered service providers both from public and private sector. They will be able to provide domiciliary maternal and neonatal services, safe home deliveries and newborn care.
- Strengthening emergency obstetric services: As narrated in Bangladesh National Strategy for Maternal Health 2001, designated facilities should be properly equipped and staffed with skilled service providers to handle obstetric complications.
- Maternal health voucher programs has been specially designed for the poor and excluded pregnant mother. They would be given with the voucher to purchase antenatal, normal delivery and postnatal services from skilled and designated service providers of their choice for the first and second pregnancy. This program will help to avoid the three delays and will ensure timely referral of the complicated cases to appropriate service providers. At present, this program is expanded to 33 upazillas in the country (from 21 upazillas in pilot phase).

**Basis of this OP**

1. Poverty Reduction Strategy
2. Revised Program Implementation Plan (R-PIP) of Health, Nutrition & Population Sector Program (2003-10)
3. Strategic Investment Plan (SIP)
4. Bangladesh National Strategy for Maternal Health, October 2001 (It is in the process of review).

**Monitoring Processes**

- Monthly HNPSP Progress Meeting
- Half yearly divisional EmOC meeting
- Bi-monthly Review Meeting to analyze the progress of Annual Work Plan
- Quarterly EmOC Core Committee Meeting
- Effective supervision and monitoring of the program by divisional and district level health managers along with central/national level.
- Supervision and Monitoring of the designating facilities
- Performance status of the Designated facilities by UN Process Indicators
- Review of the policies, strategic plans, operational plans, physical progress of the program, other major issues at central /national level.

## Some major interventions

- Establishment of National Fistula Centre and SBA Training Institute
- Accelerating Progress towards Reduction of Maternal and Neonatal Mortality and Morbidity (a joint UN program started in four districts, i.e., Jamalpur, Thakurgaon, Moulvibazar and Narail)
- Community based Skilled Birth Attendant Program
- Maternal Health Voucher Scheme: : Demand Side Financing
- Safe Motherhood Promotion Project
- Prevention of Parents To Child Transmission of HIV/AIDS
- Creating awareness by Community Support System (CSS): It is a mechanism for establishing a system at the community level, through collective efforts of the people, which aim to provide support to pregnant women and family during any obstetric emergency. Purpose of CSS is to foster an enabling environment in the community, and ultimately at the household level to support women in accessing EmOC services in a time, facilitate timely referral of women with obstetric complications to an appropriate EmOC facility, creating awareness among community about danger signs of obstetric complications and available services at different facilities

## Major activities

- Facility Preparedness by installing / repairing of major equipment
- Development of Skilled Manpower: To ensure EOC, Reproductive Health Program, ESD are providing different types of training for different categories of service providers. To combat the crisis of anesthetists, a special training course of six months for the doctors have been started. At present, 36 doctors are receiving this training and will be posted to the designated facilities.(Detail in annex 4)
- Strengthening of Management Information System at the designated facilities
- Ensuring quality cares by:
  - Management of cases following 'Standard Protocol'
  - Regular practices of Infection Prevention
  - Regular visit of quality assurance team
  - Scaling up of 'Evidence Based Practice' in terms of coverage and quality
- Women Friendly Hospital Initiatives: Health facility where women will be treated with respect, dignity and equity, will receive adequate and appropriate care (in time and affordable) and women are respected as the person to receive the necessary information and can voice her opinion and be heard. This initiative will create conditions necessary for women, reduce maternal mortality by providing essential obstetrics services, provide appropriate measure for women affected by violence, use hospitals as an opportunity for empowering women and will eliminate discrimination against women from hospitals. At present total seven health facilities are under this initiative.
- Active Management of Third Stage of Labor

## Performance Status of the Designated Facilities

### Achievement

- Installed in 19 health facilities, repaired 48 facilities

  Procured EOC equipment (Anesthesia machins, OT lights Pulse Oxymeter, AC, vacuum) by Japan Development Cancelation Fund
- 6 month training on Anesthesia for 36 Medical Officer will be completed in

**EmOC Service Performance Status of the Designated 191 Facilities (No. of Cases)**

| Year | Total Birth in Facility | Complications Treated | Cesarean Section | Maternal Death |
|---|---|---|---|---|
| 1999 | 40,863 | 19379 | 6689 | 528 |
| 2004 | 79,677 | 53079 | 15510 | 914 |
| 2005 | 93,388 | 58620 | 19810 | 790 |
| 2006 | 96,931 | 65176 | 21141 | 755 |
| 2007 | 107,068 | 74578 | 27374 | 804 |

**Status of the Process Indicators of the Designated 191 Facilities**

| Year | Met Need% | % of Births at EmOC Facilities | Cesarean Section% | Case Fatality Rate% |
|---|---|---|---|---|
| 1999 | 4.1 | 1.3 | 0.3 | 2.7 |
| 2004 | 13.2 | 3.0 | 0.6 | 1.7 |
| 2005 | 14.4 | 3.4 | 0.7 | 1.3 |
| 2006 | 15.6 | 3.5 | 0.8 | 1.2 |
| 2007 | 17.3 | 3.8 | 1.0 | 1.1 |

August 2008

- 21 Obs & Gyne and 20 Anesthetist's training (1 year) completed in April 2008
- Total Number of trained Community Skilled Brith Attendend: 3,387. Number of C-SBA under training: 468 (will be completed on December 2008) Number of training Centre: 30. Geographical Coverage: District: 48, Upazila: 269
- 132 UHCs (105) providing Comprehensive EmOC services. All other providing Basic EOC services
- Training of Nurses on EOC - 113 (total 665)
- Establishment of Blood Transfusion Centre - 15 (total 25)
- Newborn vitamin A supplementation study has been completed by Jivita project and showed 20% reduction of neonatal death

## Future plan

- Ensure 24 hours quality care
- Ensuring rights both for the service providers and recipients
- Strengthen referral system
- Strengthen MIS
- Further expansion of coverage

## Different Types of Training imparting through RH, ESD, DGHS

- EmOC training for Medical Officer on Obs. & Gyne (1 year)
- EmOC training for Medical Officers on Anesthesiology (1 year and 6 months)
- Competency Based Training (CBT) on Obs & Gyne for the Doctors (17 weeks)
- Competency Based Training (CBT) on Anesthesiologist for the Doctors (6 months)
- Competency Based Training (CBT) for Senior Staff Nurses (17 weeks)
- EmOC Training of Senior Staff Nurses

(4 months)

- Training on Safe Blood Transfusion for the Medical Technologists –Laboratory (15 days)

f. Upazila Health Complex, Bhoirob, Kishoreganj
g. Upazila Health Complex, Fatikchari, Chittagong

**Upazilas under Community Support System**

| Division | District | Upazila |
|---|---|---|
| Barisal | Patuakhali | Bauphal |
| Chittagong | Laxmipur | Fatikchari |
| Khulna | Khulna | Koyra |
| Rajshahi | Lalmoni rhat | Patgram |
| | Sirajgonj | Shahjadpur |
| Sylhet | Hobigonj | Ajmirigonj |

- Management Training of UH&FPOs and RMOs-7 days
- Training on Management of Violence Against Women-5 days
- Training on Managing Obstetric Emergencies and Trauma (MOET)- 3 days
- Training on Use of Vacuum extractor (Ventose)-15 days
- Safe delivery training for Senior Staff Nurses-1 month
- Training on Evidence Based Practice-3 days
- Refresher Training on EmOC Recording and Reporting Tools-1 day

### District Hospitals & Upazila Health Complexes with Women Friendly Hospital Initiatives

a. District Hospital, Rajbari
b. District Hospital, Manikgonj
c. District Hospital, Cox's Bazar
d. District Hospital, Joypurhat
e. Upazila Health Complex, Chowgacha, Jessore

## Child Health: Expanded Program on Immunization

### Background

Expanded Program on Immunization (EPI) was officially launched in Bangladesh on 7th April 1979 aiming to reduce child mortality and morbidity by providing vaccines against 6 vaccine preventable diseases. Initially EPI services were limited in districts and major municipalities. In the year 1985, intensification was started to cover all the target population throughout the country under UCI (Universal Child Immunization) initiative. Intensification was completed by the year 1990. The same service delivery was used for TT vaccination for pregnant women. In the year 1993, GoB endorsed TT5 dose schedule for women of child bearing age initially from 15 to 45 years age later from 15 to 49 years age. Hepatitis-B vaccine has been incorporated in the program in 2003 with GAVI (Global Alliance for Vaccines and Immunization) phase I support bundle with injection safety supply. In the year GoB applied for injection safety support window from

GAVI. GoB received this support for three years tenure from 2004 to 2007 in kind. Now government is procuring injection safety material from locally producing JMI Bangla Company using own fund.

## Objectives

### Coverage Objective

Ninety percent Fully Vaccinated Children (FVC) nationally, but at least 80 percent in each district.

### Disease Reduction Objective

a) Polio Eradication up to certification
b) Maintaining validation of Neonatal Tetanus Elimination from 2008
c) Reduction of Measles Mortality by 90% compared to 2000 estimate
d) Reduction of chronic Hepatitis-B infection among 3 to 5 years children by 2010 compared to the pre vaccination era
e) Reduction of blood borne diseases using Auto Disposable Syringes

### Target Population

- Children under 1 year (4 million)
- Women of Child Bearing Age (15-49 years: 35 million)

## EPI Service delivery

### Rural areas

The service delivery mechanism for providing EPI services relies on a system of 64 districts, 463 upazila, 4500 union, 13500 wards and 134684 fixed and out reach sites. The EPI outreach sites where routine services are provided monthly for catchments of approximately 1000 population. Vaccination is provided primarily by health assistant, an employee of the health wing of MOHFW and is usually assisted by family welfare assistant, an employee of the family planning wing of MOHFW. Porters deliver vaccines from UHC to the vaccination site/distribution point where the field workers collect and deliver the vaccines to sites. Almost all the sites are within 15-20 minute's walking distance, and field workers are instructed to conduct home visits to register newborns (in the EPI registration book) and invite parents to bring their targets children to come to vaccination sessions prior to the day of session. Important challenges of this mechanism include the consistency of home visits by health workers, which may contribute to immunization drop-out rates.

### Urban areas

The large population in urban areas has lead to increased attention to urban health, and this is a critical issue, to sustain the high levels of immunization coverage. The GoB assigned responsibility for urban primary and preventive health care to CCs and Municipalities. Accordingly, the City Corporations and Municipalities have established immunization sites, based mainly on the population size of the ward.

The urban health services, especially associated with two major projects, the NSDP, which is funded by USAID, and the Urban Primary Health Care Program, which is funded by a consortium led by the ADB. Both subscribe to the concept of one stop services and discourse the use of outreach and doorstep service delivery. Funding for the 5-year UPHCP project ($60 mio) is provided primarily by the ADB-40$, UNFPA-5$ & NDF-3.5$mio, in addition to the government contributions -11.5$. The UPHCP is designed to change the role of government from a direct provider of services into contracting agency. The government set the standards, manages a competitive bidding process, contracts with NGOs and private sectors, and supervises the contract to ensure that contracted services will be delivered. If levels of health of specific targets are met or surpassed a cash bonus will be awarded. This performance–based reward system is helping to boost high immunization coverage. However, sustaining the funding of the UPHCP and NSDP at the end of the projects remains a challenge.

## EPI Vaccination Schedule for Children under 1 year

| Name of disease | Name of Vaccine | Number of doses | Interval between doses | Age of start |
|---|---|---|---|---|
| Tuberculosis | BCG | 1 | - | At birth |
| Diphtheria, Pertussis, Tetanus, | DPT | 3 | 4 weeks | 6 weeks |
| Hepatitis-B | Hepatitis-B | 3 | 1st dose is given with DPT1, 2nd dose is DPT2 and 3rd dose is given with DPT3 | 6 weeks |
| Polio | OPV | 4* | 4 weeks | 6 weeks |
| Measles | Measles | 1** | - | 9 months (after 270 days) |

* 4th Dose of OPV is given with measles dose
** Vitamin A (100,000 IU) capsule is given with measles dose

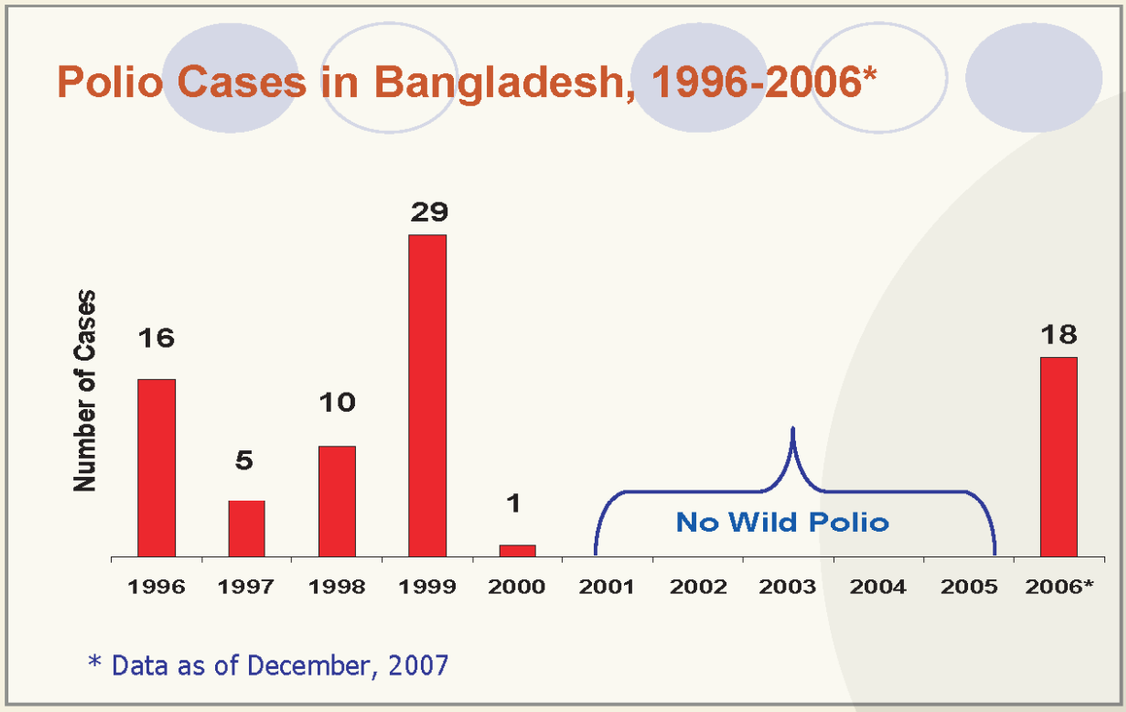
### Achievements

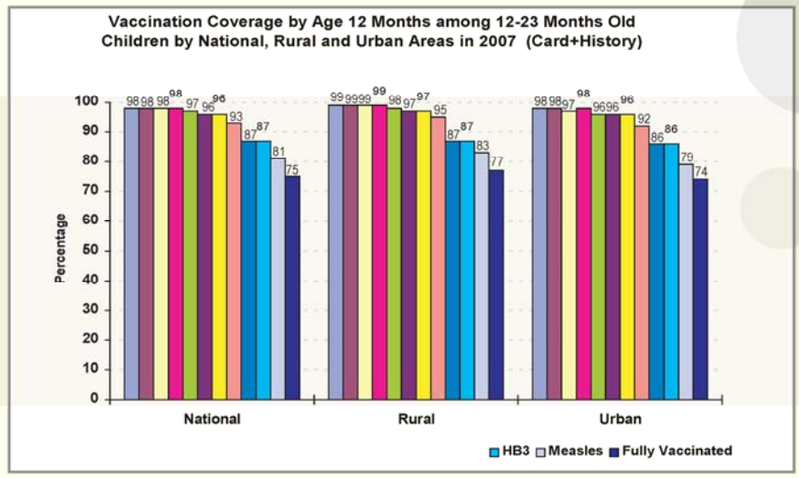
- After intensification of EPI following UCI GoB has made commendable progress in the last two decades. Fully-vaccinated Coverage rate for the children has been increased from 2% in 1985 to 75% in 2007 according to CES-2007.
- In disease reduction objectives, the achievements are also notable. Bangladesh is maintaining polio free status once again since 22 November 2006 after importation in March 2006. Although more than 5 and half years, Bangladesh was polio free before importation in 2006 from 20 August.
- Neonatal Tetanus was one of the disease reduction objectives of EPI. In this regard, Bangladesh achieved the Neonatal Tetanus Elimination goal which is another success story of EPI program of Bangladesh. In presence of International Consultants from WHO and UNICEF, in May (20-26), 2008 Lot Quality Assurance Assessment (LQSA) has been conducted to validate the Neonatal Tetanus Elimination in Bangladesh in the name of MNTE Validation Survey 2008 in two districts. Sunamgonj was the poorest performing high risk districts based on selected key indicators for scoring the districts and Rangamati considered the worst performing among three hill districts. Study findings revealed that there was no neonatal death due to tetanus although 28 neonatal deaths (ND) have been found in each district.
- Bangladesh has achieved a lot in regards to the control of Measles. In addition to the Measles vaccination in routine EPI, Supplementary Immunization Activities (SIAs) had been conducted in the name of Measles Catch up campaign in 2005-2006, which was the largest Measles Campaign in the world. The target population was 35 million in two phases. All the efforts made to reach the Measles control were found very effective since no laboratory confirmed Measles case have been found from 2007 to date.

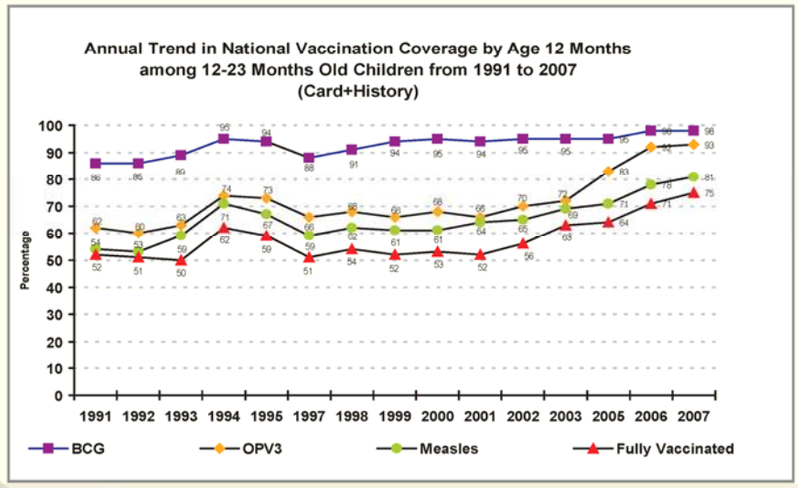
## The TT Vaccination Schedule of Women of Child Bearing Age (15-49 years)

| TT Dose | Minimum Interval between Doses | Years Protected |
|---|---|---|
| TT1 | Age of 15 years | 0 |
| TT2 | 4 weeks after TT1 | 3 years after the administration of TT2 |
| TT3 | 6 months after TT2 | 5 years after the administration of TT3 |
| TT4 | 1 year after TT3 | 10 years after the administration of TT4 |
| TT5 | 1 year after TT4 | Reproductive period |

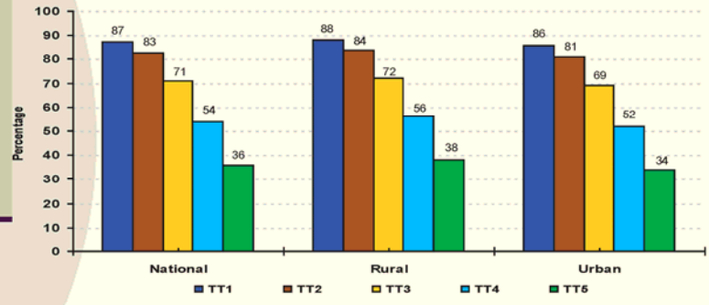
** There is minimum interval between the doses but there is no maximum interval between TT vaccination schedules. TT5 doses contribute for elimination of maternal and neonatal tetanus





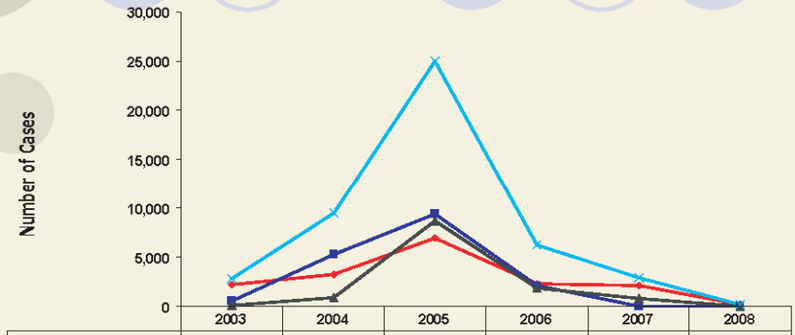




## TT Coverage among Women Aged 15-49 Years Old by National, Rural and Urban Areas in 2007




Source: CES 2007

## Measles Cases in Bangladesh by Year of Onset 2003-2008




| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| Routne | 2,197 | 3,280 | 6,925 | 2,249 | 2,097 | 200 |
| Lab Measles | 523 | 5,248 | 9,378 | 2,095 | 0 | 0 |
| Mixed | 124 | 921 | 8,723 | 1,848 | 747 | 0 |
| Total Measles Cases | 2,844 | 9,449 | 25,026 | 6,192 | 2,924 | 200 |

### Major achievements/activities done in 2008

- Approval from GAVI for getting GAVI phase II support for introduction of Hib pentavalent
- Piloting of New Tally forms
- Piloting of four site strategy to reduce vaccine wastage
- Conduction of Training for Measles case base surveillance which has began on 15 July 2008 country wide rather than outbreak surveillance
- Conduction of Training on Data Quality Self Assessment for District and City Corporation personnel
- Formation of National Committee for Immunization Practices (NCIP)
- Training on Cold Storage capacity Assessment for EPI HQ. Officials, Divisional Coordinators-WHO,
- District Immunization Medical Officers
- TOT on Routine EPI to train Newly recruited Health Assistants and Vaccinators
- Completion of Third Party Audit of GAVI fund
- Consultative Meetings on EPI with Medicine, Pediatricians, Community Medicine and Obstetricians in 16 public and private medical colleges
- Conduction of MNTE validation Survey 2008
- Piloting of Computerized Monitoring System in Lalmonirhat district
- Intervention study to improve the immunization coverage in Haor and Hilly areas in collaboration with ICDDR'B
- Procurement of Auto Disable Syringes (AD) since 2007 from local manufacturing JMI Bangla Co.

### Future Plan

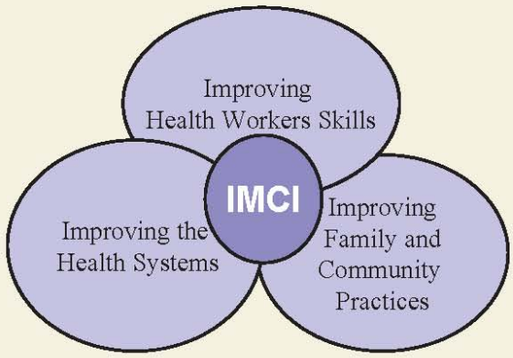
- Introduction of Hib vaccine in pentavalent form in from January 2009
- Piloting of Td vaccine for pre school going students from 2009
- Conduction of 17$^{th}$ National Immunization Days (NID) in 2008-2009 (1$^{st}$ round on 29$^{th}$ November 2008 and the second round on 3$^{rd}$ January 2009).
- Introduce New tally forms in every districts by 2009
- Conduction of Measles Follow up campaign in 2010
- Introduction of MR/MMR vaccine after Measles Follow Up campaign
- Establishment of EPI web site

## Child Health: Integrated Management of Childhood Illness (IMCI) and Neonatal Health

### Introduction and Background

Integrated Management of Childhood Illness (IMCI) is a strategy as well as a

**Figure : Three components of IMCI Program**




Program developed in mid-1990s by WHO, UNICEF and other partners to unify existing vertical child health programs (e.g. CDD, ARI) and designed to address causes responsible for almost 75% of under-5 deaths. IMCI has been regarded as one of the major strategy in the HNPSP to reduce neonatal and child mortality in Bangladesh.

MOH&FW is implementing Integrated Management of Childhood Illness (IMCI) program since 2002 to reduce child deaths due to major killers (neonatal infections, pneumonia, diarrhea, malaria and malnutrition) by increasing the quality and coverage of treatment, counseling and home-care. The program also aims to improve caring and care-seeking practices of mothers and caregivers from trained health providers. UNICEF and WHO provide technical & financial supports along with other development partners & NGOs in implementing IMCI in Bangladesh.

### Overall Program objective

1. To reduce morbidity and mortality associated with the major causes of diseases in under five children by introducing Facility & Community IMCI in 460 upazillas by 2010
2. To promote healthy growth and development by preventing diseases & promoting healthy practices

**Figure: IMCI Components & Interventions**


### Major Interventions of IMCI in Bangladesh

- **F-IMCI:** Case management and counselling by doctors, paramedics and nurses at UHC, UH&FWC & NGO clinics.
- **C-IMCI:** Implementation of 4 packages (CCM, counselling, village doctors and opinion leaders).

**IMCI Pre-Service Education (PSE):** Introducing IMCI in the medical, paramedical and nursing curriculum.

- **Referral care:** Introducing in the district and sub-districts hospitals

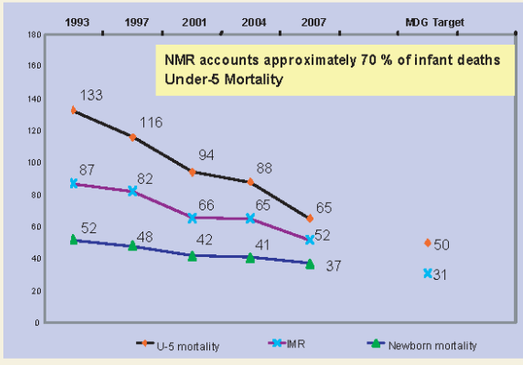
### Major activities

1. Clinical management training for doctors and paramedics
2. Orientation and planning workshop for health managers and service providers of IMCI district/upazilla
3. Facilitator and Supervisory training for doctors
4. Basic health workers training on IMCI
5. Village doctors training on IMCI

6. Counseling training for community based health volunteers and opinion leaders
7. Follow up visit after IMCI training
8. IMCI district review meeting with district/Upazila managers and service providers
9. Supply of essential drugs, job aids and logistics to IMCI upazillas
10. Supply of IMCI pre-service training materials to medical colleges

## Country situation Analysis

Bangladesh has achieved significant progress in improving the child health status both in terms of morbidity and mortality as evident in the recently published preliminary report of BDHS, 2007. The 2007 BDHS shows that under-five mortality has reduced to 65 per 1000 live births in 2007 from 88 per 1000 live births in 2004. The infant mortality rate has also shows a declining trend, e.g. 52 per 1,000 live births. Despite this remarkable achievement, neonatal mortality has not reduced at a desired pace which is 37 per 1000 live birth during 2007.




During infancy, the risk of dying in the first month of life (37 per 1,000) is nearly two and a half time greater than in the subsequent 11 months (15 per 1,000). It is also to be noted that deaths in the neonatal period account for 57 percent of all under-five deaths and 70 percent of all infant deaths. One neonate dies in Bangladesh every three to four minutes,

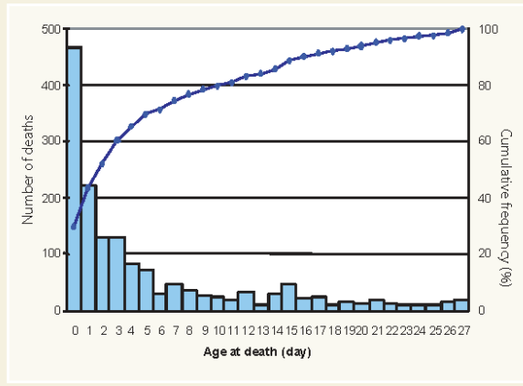


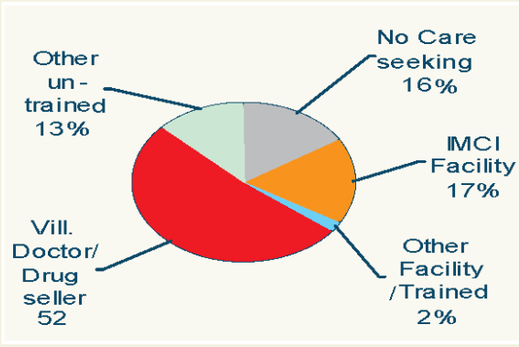

Figure: Neonatal mortality by days

making 14 neonatal deaths every hour and 120,000 neonatal deaths every year. Neonates in Bangladesh are dieing from three main causes: infection (52 per cent), birth asphyxia (21 per cent) and low birth weight or pre-term deliveries (11 per cent). Three quarters of neonates die within the first week of life and almost fifty per cent of them die within the first 24 hours of birth, with most of these deaths occurring at home. Notwithstanding the high rate of neonatal deaths, Bangladesh is among the 7 countries that are on track to achieve the MDG-4 of reducing under-five mortality by two-thirds by 2015.

Despite the increasing trend in ORT use rate (85%), and care seeking from trained providers for ARI (28%),☐facility utilization by the sick children is not more than 13-15%. Village doctors are still the prime service providers for sick children.

The knowledge of caregivers for caring as well as caring & care seeking behaviors are very poor thus perpetuating poor child health conditions. Immediate and emergency newborn care ☐is completely neglected as it has fallen between the cracks of maternal and child health thus further aggravating the situation.

There is a great need for better life




**Care-seeking by sick U-5 children**

saving essential and emergency newborn care practices, such as thermal protection, early initiation of exclusive breastfeeding, tactile stimulation and resuscitation (for non-breathing baby), care of eye, skin and cord (for infection prevention), special care of the pre-term/Low Birth Weight baby and early referral to trained service providers when they are sick.

## Progress made till June 2008

The facility-based IMCI has been expanded to 274 upazillas. The facility utilization by sick under-five children has increased by 22 per cent (from 8% to 30%) and the quality of care provisions has increased by more than 50 per cent in those areas.

The community-based IMCI has been initiated in 15 upazillas to improve caring and care-seeking and will be expanded further to 12 additional sub-districts by December 2008, following the development of a national strategy that was endorsed by the Ministry of Health and Family Welfare in 2004.

Essential Newborn Care, one of the five priority areas, has been introduced both in facility and community-based IMCI services. WHO, UNICEF and other development partners are supporting MOH&FW in the development of "National Neonatal Health Strategy & Guidelines" for Bangladesh which will give future strategic direction to implementation of neonatal health interventions interlinking them with other programs.

IMCI Section of DGHS, MOH&FW with technical & financial support from UNICEF has developed 4 packages: basic health worker's package on community case management, counseling, village doctors' training. The development process of opinion leader's package and advocacy, social mobilization package for ComSS are underway. These packages support activities ranging from community health workers' training; early identification, treatment and referral of common childhood illnesses (ARI, diarrhea, fever) at home; counseling caregivers; and teaching about improved feeding, home-care and care-seeking.

## Achievement during July 2007 -June 2008

| Activities | Target | Achievement |
|---|---|---|
| Expansion of Facility IMCI | 100 (No.) | 100 (No.) |
| IMCI Clinical Management Training for Doctors & Paramedics | 1500 (No.) | 1480 (No.) |
| Facilitators Training for Doctors | One batch (24) | One batch (23) |
| Orientation & Planning workshop for Health Managers | 5 workshops | 5 workshops |
| Procurement & distribution of essential drugs | Procurement & Distribution to all upazillas | Procured and dis tributed |
| Expansion of C -IMCI | 10 upazilas | 10 upazilas |
| TOT on Basic Health Workers Package | 1 batch (30) | 1 batch (28) |
| Training Basic Health Workers | 1000 (10 upazilas) | 984 (10 upazilas) |
| TOT Village doctors training | 1 batch (30) | 1 batch (30) |
| Village do ctors training | 1800 (10 upazilas ) | 1790 (10 upazilas) |
| District review meeting on IMCI | 10 (No.) | 10 (No.) |
| Follow up visit after IMCI Training | 20 upazilas | 20 upazilas |
| Printing & distribution of IMCI training materials, job aids and logistics | Printing and distribution | Printed & distributed |
| Printing & distribution of Students Hand books for the Medical students | Do | Printed & distributed |

### Supervision, Monitoring and Evaluation

IMCI section, DGHS is coordinating all IMCI related activities at the national level under the guidance of Line Director-ESD. IMCI section has one PM, three DPM and two MOs to supervise and monitor of IMCI program through follow up after IMCI training visit and routine monitoring visit. There is a National Steering Committee chaired by the honorable Secretary, MOH&FW, which is the highest body to take policy decision as well as provide strategic direction to the program. There is also a National Core Committee and National Working Group to guide and provide technical guidance to IMCI section in the implementation of the program at national level.

Health Managers at Divisional, District and Upazila levels are responsible to supervise and monitor the IMCI activities at IMCI designated upazilas.

IMCI program has a unique partnership approach in implementing IMCI program through a National Working Team comprising of all the partner NGOs supplementing and complementing GoB's efforts.

IMCI section and MIS, DGHS have developed Supervision Check-list and IMCI MIS formats for instituting an effective supervision & monitoring system. MIS, DGHS has also developed IMCI MIS software, provided training to statisticians of CS office and installed the software at 20 district (CS offices). Statisticians, MA and SSN from IMCI designated upazilas have been provided training on IMCI MIS. IMCI section is also conducting district review meetings participated by the managers (both from health and FP dept.) from the IMCI district/upazillas to review IMCI performance, identify gaps, constraints and ways for strengthening and improving quality of IMCI services in IMCI facilities and developing capacity of sub-national level Health & FP Managers for institutionalizing supervision and monitoring system for IMCI implementation.

## Child Health: Control of Acute Respiratory Infection (ARI)

### Introduction

Control of Acute Respiratory Infection is one of the important steps taken by the Government of Bangladesh to save the lives of thousands of under 5 children from pneumonia. Each child experience about 3-5 episodes of ARI per year. Number of death from ARI is gradually decreasing. Still ARI remains the single largest killer among under 5 children. It is estimated that nearly 85,000 (Eighty five thousand) children are dying from pneumonia in our country every year. Under 5 mortality is decreased from 152/1000 live birth in 1990 to 65/1000 live birth in 2007(BDHS). MDG goal' is to decrease U5 death to 50/1000 live birth by 2015. Govt. of Bangladesh decided to implement standard case management protocol of WHO through ARI Control Program in the year 1992 on pilot basis. Expansion of the program all over the country was completed in the year 2000. Since ARI is one of the important cause of under five mortality, so the government decided to continue the activities of ARI control program in HPSP as well as in HNPSP as a component of Child Health under Primary Health care. Now IMCI has been adopted as Child survival strategy and ARI has been linked with IMCI.

### Objectives

To improve home management of No Pneumonia & Pneumonia cases and ensure proper management of 100% cases of Severe Pneumonia & Very Severe Disease.

## Specific Objectives

- To reduce under 5 mortality, morbidity & complications from ARI specially pneumomia.
- To rationalize the use of antimicrobials/antibiotics for treatment of pneumonia
- To promote health seeking behavior through creating community awareness

## Key elements of ARI Control Program

- Develop skill & knowledge of the service providers regarding WHO standard ARI case management protocol following IMCI guide line.
- Ensure smooth supply of drugs & logistics.
- Create community awareness regarding home care and referral.

## Strategies

The central programmatic strategies are to implement ARI control activities through existing PHC infrastructure according to IMCI guide line in IMCI & non IMCI areas. Proper home care, early recognition of danger signs and timely referral are the most important strategies to achieve the objectives of the program.

## Activities Performed

**Financial year 2007-08 Activity**

A. Distribution of CIDA Funded drugs & Logistics for ARI/CDD to all Districts.

Among these most important are:

1. WHO protocol drugs.
2. Nebulizer Machine-750 nos
3. Oxygen flow meter -500 nos
4. Disposable syringe -750,000 nos So, all Upazila Health Complex have 1 or 2 Nebulizer machine & flow meter from ARI Control Program.

B. Training of Doctors, Paramedics and Field Workers on Management of ARI & Diarrhea in line with IMCI Protocol in Non-IMCI Upazilas Work Plan 2007 :

- A total of 173 doctors of 6 districts were given training cum TOT.
- Total 1225 HA, AHA, HI, Nurse and Paramedics were trained in 18 Upazilas.

## Work Plan 2008 (Up to June-08)

- A total of 55 doctors of 3 districts were given training cum TOT.
- Total 623 HA, AHA, HI, Nurse and Paramedics were trained in 10 Upazilas of Tangail Districts.

## Expected out come

- Improved home management & health seeking behavior.
- Early redetection, proper treatment & timely referral ensured.
- Improved management of all admitted cases of Severe Pneumonia & Very Sever Disease.

## Achievement

- The under 5 mortality due to ARI has been reduced to 85000 (estimated) from 150000 of 1990s.
- Under 5 death rate has remarkably reduced from 152/1000 live birth in 1990 to 65/1000 live Birth in 2007(BDHS).
- Case reporting has been increased in many folds in previous year.(6,83,412 ARI cases in 2000 & 24,54,072 cases in 2007)
- Caretaker's awareness increased.
- Distribution of Nebulizer in all Upazila Health Complex is completed.
- One guide line on Bronchiolitis has been prepared and distributed to all upazila Health Complexes.
- Regular & adequate drug supply has been ensured through CIDA funding & UNICEF assistance.
- Only 8 countries are on track to achieve MDG-4 goal. Bangladesh is one of them.

## School Health Program

### Introduction

Bangladesh is the most densely populated country in the world having about 150 millions peoples in only 1,45,700 square kilometer area. The density of population is 960 per square kilometer. One third of its population (about 42 million) comprises of school-aged children and adolescence. These children need to be equipped with knowledge on health and health promoting activities for practicing healthy life-style throughout their lives. B.C.C. (Behavior change communication) training for school teachers and students can educate their peers, their families and their communities on health.

### Background

A very small program on school health is in operation since 1951 and so far 23 School Health Clinics (each clinic has two graduate doctors and one pharmacist, one MLSS) are functioning covering 1551 schools (only 2% primary and 6% secondary schools) and providing some medical care to approximately 6073 students per clinic per year. This strategy is not cost-effective because a very small proportion & the pop of school in Bangladesh having access to School Health services. Moreover only few urban schools were getting this limited health services. In 1996 a School Health Pilot Project (SHPP) supported by World Bank fourth population & Health Project (FPHP) was implemented focusing on preventive, promotive & curative health care to the students through the regular school curriculum as proposed in the master plan designed in 1993.

### Objectives

**General Objectives**

To provide comprehensive health care to the school students of Bangladesh in order to prepare them physically, mentally and socially for entry into adulthood as a step towards achieving the goal of "Health for All"

### Specific Objectives

- To promote development of healthful school environment
- To encourage and help student to inculcate knowledge, attitude and practice with regards to good health habits and personal hygiene.
- To assist implement appropriate measures for prevention and control of communicable diseases/conditions and for improvement of health status of school students.
- To arrange detection and care of physical and mental defects/illness among students.

### Strategies and approaches

- Promotion of healthful school environment through the provision of safe drinking water, sanitation and appropriate physical infrastructure for the school.
- Training of school teachers and students.
- Improvement of knowledge, attitude and practice of school students regarding personal hygiene and good health habits by imparting necessary health instructions and health education.
- Screening/physical examination of student to determine their health and nutritional status and for early detection of physical and mental defects and introduction of 'Health Cards '
- Observation of any deviation from normal health among students by school teachers and referral of such cases for necessary care.
- To provide first aid services & establishment of a referral system

with health institutions (hospitals/ health centers).

- Development of a mechanism for effective coordination between the health sector, education sector and the community at all levels and formation of School Health Committee.
- Provision of legal support necessary for implementation of the school Health Program.

## Target

The development and expansion of the proposed SHP covering all school in the country will be carried out in a phased manner and will be completed by the year 2015.

## Vision & Mission of SHP

1. To train the primary schools teachers regarding health education all over Bangladesh
2. To train the secondary schools teachers regarding screening of Eye, ENT, Teeth & Nutritional Status
3. To develop a mechanism of strong referral network
4. To train Secondary Girls Student (class 8 to 10) regarding breast feeding, adolescent health, STD/AIDS, Population education, First Aid
5. To develop skill on basic computer of MOs & pharmacist for strengthening reporting system
6. Involvement of School committees & other community members in Health Education Program to get support of SHP
7. To provide TOT of High School teachers regarding adolescent health, STD/AIDS, Population education, First Aid & Breast Feeding
8. To train primary school teachers for developing skill of screening regarding Eye, ENT, Dental Health & Nutritional Status.
9. To expand Teachers Training to other districts
10. To expand the activities to all upazilas of old districts & only Sadar upazilas of other districts
11. Health education through regular curriculum.
12. To identify the school as a focal point to provide necessary health care facilities to the future citizens of the country.
13. To help students to develop a healthy lifestyle.
14. To enable students to act as health promoters in the community.

*Tooth brush and tooth paste distribution at Mymensingh*

## Project Performance

The project's implementation period was 30th June'98 and the performances have shown a significant positive result and for that reason all the activities and strategies are included in HPSP & HNPSP under School Health Program.

## School Health Program in HPSP & HNPSP

In the Health & Population Sector Program (HPSP) for the year 1998-2003 & Health Nutrition & Population Sector Program (HNPSP) 2003-2010 following

additional components are included and implemented in phase wise.

- Strengthening of nutritional activities on promoting breast feeding practices, improve complementary feeding practices & de-worming of children;
- Supplementation of Vit A in primary school children;
- Promotion and monitoring of iodized salt consumption;
- Providing information on reproductive health including family planning, drug addiction, STDs/HIV/AIDS, adolescence health & also common diseases among secondary school students.

## Activities performed during July 2003- June 2008 under HNPSP

- 20 Motor cycles have been distributed.
- Distribution of 23 no's of Computer & Printers to SHC are already completed
- 20 Billboards are buildup in 20 SHC.
- 1000 Wall painting have been painted in 1000 Primary Schools in 20 Districts.
- 10,200 First Aid Box's have been distributed in different Primary schools.
- 500 Pieces of Wt. & Height measuring scale Machine distributed in different Primary schools & 23 School Health Clinics.
- Sufficient amounts are distributed in Primary Schools in 2006 -08
- Albendazol Tab. distribution in all districts is on going for 4 Years.
- 1,10,000 Tooth Brush & Tooth Paste are distributed among Primary School Students.
- Sufficient amounts of Iron & Folic acid have been distributed among Secondary Girls School Students.
- Total no of THFPO, MO, & TEO / ATEO are trained by TOT Program in Jessore District
- 618 School Teachers are trained in Jessore District.
- Dhaka, Barisal, Sylhet & Rajshahi divisional conference has been completed
- Global School Based Student Health Survey (GSHS) is Under Process.

## Routine activities

- Health Education in different schools by Medical Officer of school health clinics
- Screening of school students
- Health services in school Health clinic by Medical Officer
- Medical officers also perform different duties like examination hall, sports day, independent day, and other activities in district by order of civil surgeon
- Medical Officer visited schools and advised teachers to promote a healthful school environment


*Training or Trainers (TOT) program*

*Teachers' training at Jessore*

### Conclusion

Bangladesh government has identified the school to be the focal point for health promotion through school teachers and students who can educate their peers, their families and their communities on health.

## Medical Waste Management

### Introduction and Background

Health care wastes are generated as a by-product of health care activities and its generation is unavoidable. The wastes produced in the hospitals carry a higher risk of infection than any other waste particularly for the service provider and waste handlers. According to a Dhaka City corporation research report, about 3700 metric tons of wastes are generated each day in Dhaka city alone and about 200 tons are hospital wastes of which 40 tons is infectious in nature. Another study conducted by the World Bank revealed that Upazila health complexes generates wastes on an average 1.5 kg/bed/day, of which 20% is infectious in nature. As there is no policy of waste management, the generated wastes are collected together resulting in mixing of different type of wastes and making the whole bulk as infectious waste. Furthermore, there isn't any proper waste disposal system in place resulting in exposure of the population to a highly hazardous situation.

The medical waste is capable of transmitting diseases either through direct contact or by contaminating soil, air and water. If not properly handled, medical waste is a risk to individuals, community and the environment.

Under HPSP, reform of hospital services was focused on the principles of increasing the quality of services for which effective waste management practices at hospitals was shown as a necessity. Government of Bangladesh considered its importance and included it as a priority sector as an activity under hospital services component. After the inception of HNPSP the activity was incorporated in it and progressing at its initial phases consisting of few district and medical college hospitals. The Upazila and below level health centers were not considered in that initiative as they fall under the jurisdiction of primary health care. At the Upazila health complexes and below, there is in-fact, no system in place for managing the generated waste. For disposal of the wastes different type of methods are in use, such as, burial, dumping, landfill, pit burning and small scale incineration in very low temperature etc. Furthermore, safety of the waste handlers, generators, community and environment are not always properly addressed. Considering the situation government incorporated the waste management initiative for hospitals at the Upazila and below in the HNPSP in line with the national goal to ensure safe, environment friendly, cost-effective and sustainable management of

medical wastes derived from curative, diagnostic, preventive and rehabilitative health care services both in public and private sector.

Accordingly, in 2004-05 fiscal year medical waste management program for Upazila and below level hospitals were included in essential service delivery program operational plan. But due to some delay in fund release it was materialized in the last quarter of the next fiscal year.

## The Objectives of the program

- To establish a feasible and sustainable system for safe medical waste management, which will include safe disposal of sharps and other medical wastes;
- To improve community awareness regarding hazards of sharps and infectious medical wastes and the safe ways for their disposal;
- To ensure safety of the health care providers, recipient and waste handlers.

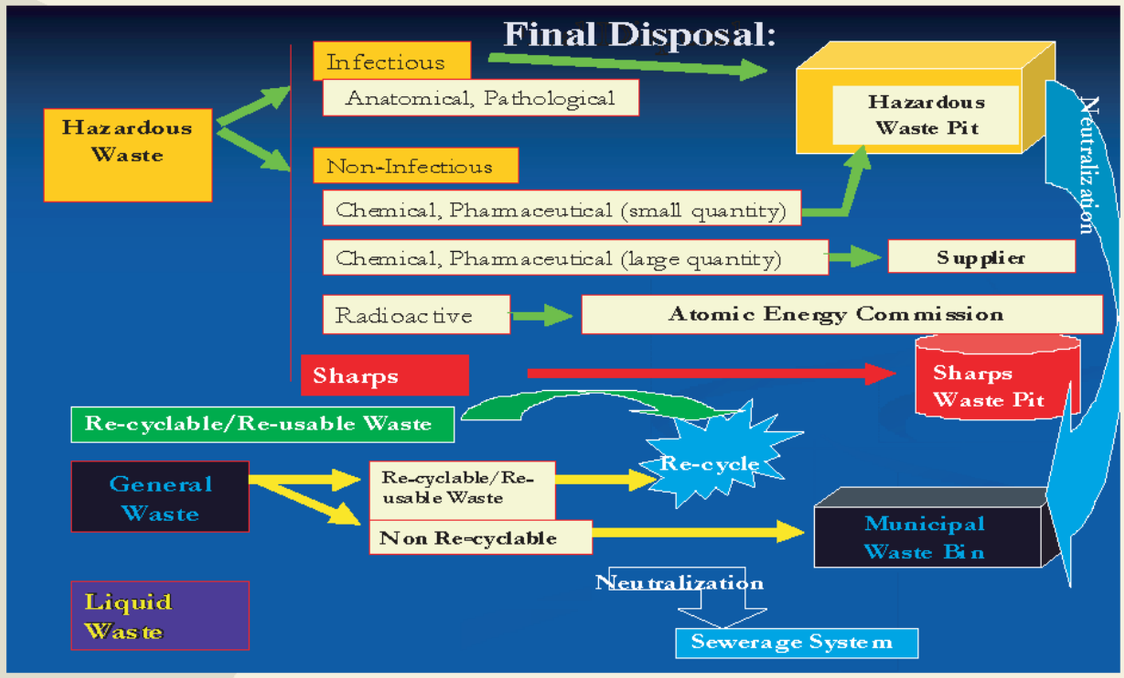
To implement proper medical waste management system at primary health care level the following activities are going on-

1. Construction of pits in UHC
2. Procurement of logistic
3. Training/Orientation of personnel
4. Community awareness

## Achievements so far

1. Orientation on MWM of all the staffs of 237 Upazila (more than twelve thousand) and officials of 34 district (CS, DCS/MO, CS -around eight hundred and fifty officials) is completed
2. Procurement and distribution of necessary logistics for 133 UZs is progressing through CMSD and will be completed by July, 2008.
3. Construction of pit for 133 UZs is also in process through CMMU and will be completed by July, 2008.

Strategies adopted for final disposal of the medical wastes is shown in the following flow chart for different type of medical waste:



## Color code for different containers for segregation, collection, storage and transportation of different medical wastes at UHCs:

| Type of Waste | Color of the Containers |
|---|---|
| General Waste | Black |
| Infectious Waste | Yellow |
| Sharps | Red |
| Recyclable Waste | Green |
| Liquid Waste | Blue |

## Goods in process of procurement and distribution for Medical Waste Management

| Name of Item | Total Quantity (No.) | Quantity to be supplied in each UHC (No.) |
|---|---|---|
| General Waste Bin | 5985 | 45 |
| Infectious Waste Bin | 3990 | 30 |
| Sharps Waste Bin | 3325 | 25 |
| Gum boot (pair) | 2394 | 18 |
| Heavy duty gloves (pair) | 2394 | 18 |
| Hand tray | 3192 | 24 |
| Drain brush | 3192 | 24 |
| Mug (plastic) | 6650 | 50 |
| Bowl/Gamla (plastic) | 13300 | 100 |
| Bucket (plastic) | 3990 | 30 |
| Needle crusher | 2660 | 20 |
| Belcha | 1330 | 10 |
| Spade | 1330 | 10 |
| Apron/macintosh | 1995 | 15 |
| Mask | 6650 | 50 |
| Waste carrying Trolley | 266 | 02 |

The target: To establish a sustainable medical waste management system in all the UHC's by 2010-11 fiscal year.

## Urban Health Services

### Introduction

The population pattern of urban areas day by day becomes threatening to the total environment. In1961, only 5% of the population lived in the urban areas it became about 23% in 1998 which will be increased to about 33% (projected) in 2010 AD. Rapid urbanization is making the situation worsened. Due to population explosion the cultivating land are being gradually occupied by buildings, roads, institutions industries etc. So, the rural people loosing there jobs in the cultivation field. As a result they are becoming poorer. Finally poverty compelled them out of the village to the urban areas, where from they are expecting a job for their existence; though it is like a daydream & they can't manage any job by which they can arrange food for them and also for their family members. Thus after suffering from long time starvation they are thrown into the dark by themselves & they start to involve in anti-social activities eg thieving, hijacking, sex business, even drug addiction also. On the other hand they can't manage healthful housing for themselves creating overcrowding in the urban areas. So they are being compelled to live in the slum areas, where there is no provision of safe water or don't have healthy housing environment. Not only that a large number of family members used to live in a small unhygienic kuthury made of bamboo or something like that. As a result invariably they suffer from STD, skin diseases, different water born or air born diseases etc. in addition to malnutrition. It is why the IMR, MMR, Child mortality and morbidity are very high among this group of people. So, if we want to achieve the MDG, we must address this rapid urbanization, population explosion problem by starting from the slum of the urban areas.

### Field of the Program

Urban Area: All city corporations and municipalities are included in the urban areas.

Urban Population: Urban population is defined as the populations living in the City Corporation and municipalities.

### Objectives

To provide Primary Health Care in the urban areas for the improvement in the health status of the urban population will be comparable to that of the developed countries in collaboration with GO & NGOs.

### Major Activities

1. National level orientation for health service managers of City Corporation & Municipal areas.
2. Workshops on development of strategy for improvement of urban health services.
3. Training of health service providers of City Corporation & Municipal Corporation areas on essential elements of urban health services.
4. To increase the awareness of the urban population regarding nutrition, Family planning, care of the mothers, children, breast feeding, ANC, PNC, and also about the institutional delivery of the pregnant mother etc.

### Achievements

1) Training of trainers (TOT) of district & Upazila health managers (CS, MO-CS, UHE-FPOs) in 8 batches of 30 persons.
2) Two days workshop of GO &NGO members (20) for the development of strategies on improvement of health of garment workers.
3) Orientation of the GO &NGO health service providers of urban areas 36 pourasava regarding urban health services.
4) Procurement & supply of MSR/ drugs & different medical equipments to the health facilities of the urban areas.

**In the next fiscal Year (2008-2009) the following activities are included in the activities**

1. Training of the female garment workers regarding the development of their nutrition, reproductive health, care of the child, breast feeding, safe delivery family planning etc.

2.Mobile clinic for the floating people of Dhaka city living in the Railway station, bus terminal, slums and different public places.

## Limited Curative Care

### Introduction

ESD has 472 Health complexes, more than 1275 Union sub-Centers & 12 ten bedded rural Health centers. Doctors, nurses & others providing limited curative care & emergency services through out rural areas in Bangladesh. It requires medicine & MSR for effective & quality service delivery. Effective basic & refreshers training however need to be given to these staff.

### Strategy & activity

To provide treatment of medical emergencies including asthma.

- To provide first aid for common injuries like burn, snake bite, drowning & accidentsincluding RTA.
- To treat common dieses of skin, eye, ear and dental problems.
- To refer patients to the higher facilities for better treatments (When necessary).
- To provide emergency services.

### Objective

Strengthening UHCs to manage injury and emergency cases at UHC.

### Priority activity

To provide treatment in medical emergencies and to the neonates.

### Other activities

To provide basic first aid for common injuries & treatment of diseases including RTA. skin, eye, ear and dental problems etc.

### Issues to be addressed

- Procurement of MSR, their proper and timely distribution.
- Arrangement of skill building training for service providers

# Communicable Disease Control

## Introduction

Under HNPSP, Communicable disease control encompasses on vector borne diseases (malaria, kala-azar and dengue), filariasis elimination, control of emerging and re-emerging diseases (avian influenza, nipah), and emergency preparedness and response including collaboration with City Corporations/ municipalities for dengue control in urban areas. It should be noted that in CDC two new programs are included as in the recent years avian influenza and kala-azar needs to be specially addressed.

## Objectives/targets of the program

a) To reduce malaria specific mortality and morbidity by 50% by the year 2011;

b) To reduce kala-azar incidence to less than 1 per 10,000 population at upazilla level by 2011;

c) To reduce case fatality rate of dengue below 1% by 2011;

d) To Raise mass drug administration for filariasis elimination coverage to 100% by 2011;

e) Morbidity control with hydrocelectomy mainly through mobile approach;

f) To strengthen the operational capacity of the health sectors for emergency management;

g) To increase public awareness for emergency preparedness, disaster preparedness and mitigation;

h) To reduce natural and man-made disaster mortality and morbidity in the country;

i) To increase infectious disease surveillance and response;

j) To provide training opportunities in infectious disease epidemiology and diagnosis;

k) Investigation of any communicable Disease out break

l) Strengthening of sentinel laboratories for detection of emerging and reemerging diseases.

## Priority objectives of the Operational Plan

a) Advocacy / BCC

b) Capacity building

c) Procurement and storage of drugs and equipments, vehicles and other consumables

d) Surveillance

e) Supervision and monitoring.

## Components of Operational Plan

- Malaria Control Program
- Filariasis Elimination Program
- Kala-azar Elimination Program
- AVIAN Influenza Control and Prevention Program
- Emerging and Reemerging Diseases Control
- Emergency Preparedness and Response Program

## Malaria Control Program

### Introduction

Malaria is a major cause of mortality and morbidity in the tropical and sub-tropical regions of the world. An estimated 300 to 500 million persons suffer from and more than one million die of malaria each year. A majority of malaria deaths, particularly those in the children under five occur in Sub-Saharan Africa. The South East

cases and deaths next to Africa though malaria was a significant cause of illness and death across the globe until about 50 years ago. It is now found mainly in tropics – Africa, Central and South America, Tropical Asia and part of Middle East. Although it is eradicated from most temperate environment, it still threatens 40% of the world's population. Most of whom live in very poor countries. Globally 80% to 90% of malaria death occurs in Tropical Africa.

In addition to the human toll, malaria is considered by health economist to be one of the four most common causes of poverty. People exposed to the infection may spend as much as 25% of their household income on malaria related expenses, travel for treatment, medicine, bed nets, laboratory examinations and funerals for family members, dying of the disease. Such individuals are less productive, absenteeism from jobs and debilitation resulting in ability to perform agricultural task are common. Children are forced to remain at home because of illness or because of the need to replace adult performing agricultural work.

## South East Asia regional context

Malaria remains one of the most serious problems faced by the countries of the SEAR. The burden of malaria here is second to Africa. Every year one hundred million cases are estimated of which 50% are P. falciparum. The disease is endemic in all countries in this region except Maldives. Official case and death reporting is poor and the actual number may be 10 to 20 times higher. The geographical distribution and overall incidence of P. falciparum is increasing day by day. The political commitment for malaria control remains inconsistent. As a result the resource for malaria control remains insufficient. The capacity of the health staff to address malaria is gradually diminishing in all the countries including Bangladesh due to transfers attrition and unfilled vacancies. However a remarkable contribution had been made during the eradication era. During the last seven years, P. falciparum malaria cases have been increased in Bangladesh, India and Indonesia. Drug resistant falciparum malaria has been spread in menacing way.

## Malaria in Bangladesh Perspective

Malaria is a major public health problem in Bangladesh. Thirteen districts are high endemic. About 98% of the malaria morbidity and mortality occurs each year as reported from these districts. Half of the total population in the three hill districts are indigenous who are the most vulnerable to suffer from malaria. Seventy Five Percent of the cases reported from these districts are Pf malaria. Seasonal migratory labor and new settlers are non immune and hence more prone to get malaria infection. In 2005, a total of about 2,42,297 clinical cases and 48,121 laboratory confirmed cases were reported from 13 districts of which 501 died. Income generating group more than 15 years are the major sufferers. Children and pregnant women belong to high risk group.

## Revised Malaria Control Strategy

Many countries in Asia including India and China are witnessing unprecedented growth through rapid economic development. But this development is uneven. There are underdeveloped countries in Asia that deserve more attention. P. vivax malaria, though causes no mortality, but is very debilitating and adversely affects productivity. Due to relapse of vivax malaria it is devastating to economic development.

Rising trend of P. falciparum and spread of drug resistant malaria further complicate the problem. A revised strategy is needed to highlight this

problem. Countries of these regions have gone through a series of antimalarial strategies over the years. Malaria eradication strategies were in place since 1955 with considerable success. But resurgence of the disease occurs in the 70s and approach was changed to malaria control strategy articulated in the year 1992 and endorsed by the member states of WHO. In 1998, the Director General of WHO recommended the Roll Back Malaria Initiative with the elements of Global Malaria Control, Partnership and Advocacy to mobilize the resource. Effective malaria control requires a clear understanding of malaria dynamics, definition of target population, mapping of migrant population and epidemiology. Malaria prevention requires a development and implementation of public health policy and community mobilization. Due to insecticide and high cost of insecticide it needs resource intensive operation. Long Lasting Insecticides Net (LLIN) should be scaled up to the target population. Bioenvironmental approach should be encouraged through IVM. Poorer nations need a new approach and strategy that fit their context.

## Background of Malaria Control in Bangladesh

The program is designed to strengthen and scale up the current malaria control activities. Malaria diagnostic and treatment services will be expanded at the community level. Long Lasting Insecticides Net (LLIN) will be distributed and existing nets will be retreated. Vector control measure will be strengthened through IRS and IVM. BCC activities will be scald up. Partnership with private health services will be established.

## Goals

To reduce malaria morbidity and

## General Objective

To reduce malaria morbidity by 50% of the level in 2000 and malaria mortality by 50% of the level in 2000 by 2010,to prevent and contain malaria epidemics and to empower community for malaria control, and promote partnership with NGOs and the private sector.

## Specific Objectives

- To provide early diagnosis and prompt treatment (EDPT) with effective drugs to 80% of malaria patients;
- To provide effective malaria prevention to 80% of population at risk;
- To strengthen malaria epidemiological surveillance system;
- To establish Rapid Response Team (RRT) at national and district levels and increase preparedness and response capacity for containment of outbreaks;
- To promote community participation, and strengthen partnership with private sector and NGOs for malaria control.

## Program Strategies

- Disease prevention
- Disease management (quality diagnosis and effective treatment)
- Surveillance
- IEC and community mobilization
- Research and Training
- Strengthening district health system
- Strengthening partnership in malaria control
- Monitoring and evaluation

## Planned activities

GOB is responsible for the following activities:

- Training of the government Medical

- Technologist (Lab), Nurses, Community Health Workers and Doctors in malaria prevention, diagnosis, treatment and program management
- Procuring Rapid Diagnostic Test (RDT) and supplying them to the health facilities
- Procuring Long Lasting Insecticides net (LLIN) and supplying them to the NGOs
- Clinical malaria case examination by RDT and microscopy
- Providing antimalarial treatment
- Ensuring that health facilities have no stock outs more than one week of antimalarial drugs and goods at any time in first three months
- Treating and retreating the Insecticide Treated Mosquito Net (ITMNs)
- Ensuring reporting timely, completely and accurately.

### NGOs are responsible for the following activities :

- Establishing new microscopic centers
- Additional laboratories, procuring microscope, Lab equipment and supplies
- Training new laboratory technicians
- Examining clinical malaria cases by Rapid Diagnostic Test (RDT)/ Microscopy
- Providing antimalarial treatment through community based service providers
- Distributing Long Lasting Insecticides net (LLIN), treating and retreating Insecticide Treat Mosquito Net (ITMNs) in use by the households
- Training NGO partners' health staff and volunteers on BCC
- Ensuring that health facilities have no stock out lasting more than one week
- Ensuring health facility reporting timely, completely and accurately
- Organizing advocacy meeting for community leaders, NGO representatives and policy makers.

### Program Management Plan

The Program Management Plan (PMP) is for the Global Fund supported Malaria Control Program of Bangladesh. The program covers 70 upazilas under 13 districts to serve and protect a total of 10.9 million population in these high endemic districts. The Malaria and Parasitic Disease Control (M&PDC) unit under the Directorate General of Health Services of Ministry of Health and Family Welfare (MOHFW) is responsible for managing and implementing program. There is a NGO consortium of BRAC led 15 NGOs who are involved in the implementation of various activities.

The overall goal of the Round 6 proposal is: Reduced burden of malaria in 13 high endemic districts by the year 2012 and three main objectives have been set to reach this targeted goal which comprise: (i) Provide quality diagnosis and effective treatment to 80% of the estimated malaria cases in 13 high endemic districts by 2012; (ii) Promote use of ITN/LLINs in 80% of the households in 13 high endemic districts and selective IRS for containment of outbreaks by 2012 and (iii) Strengthen program management capacity and coordination and partnership in malaria control.

### Management level

Coordination and management of activities take place in two different levels: central and implementation level. Efforts at each level are linked together and integrated through communication among program staff and regular staff, assisted by technical committee, working group and other institutions (CCM,

IEDCR, MRG, ICDDRB, WHO, NGO-PR, SRs etc). A Malaria Control Program Management Schedule facilitates efficient use of available human and financial resources.

### Management Overview

Execution of the Program will be performed in accordance with the processes defined by the set of planning documents. These documents include Program Management, Implementation, Evaluation, Organizational, Financial and Partnership Management. The Responsibilities of the Program Team, the Capabilities of the System, and the Program Deliverables are detailed under the contractual provisions

### Program Management

The Program Management Plan describes the management philosophy, program organogram, and major milestones that serve as the guide for execution of the Program. The PMP also provides the quality team with the information they need to monitor and evaluate the progress of the program activities. This plan provides the following pertinent information:

- Program Team Organization With Areas of Responsibility
- Work Structure
- Program Planning
- Progress Reporting and Team Management
- Detailed Program Milestones

**Management Approach:** The malaria control program management goal is to work closely with the target community. The management approach is based on the philosophy that Successful Programs are delivered by goal-oriented teams. A Deputy Program Manager (DPM) will lead the program team guidance under the line director. The DPM is responsible for all Implementations of programmatic and technical aspects of the Program. The primary duties include supervision of Implementations scheduling, financial, and technical activities, and stakeholder liaison. The DPM is responsible for all Implementations of Program-related decisions and commitments with approval of the Line Director.

A key element of the Malaria Control Program Management approach is to be directly involved with the stakeholder in every step of the process.

### Indicators, data framework, tools and instruments

### Indicators

The indicators are drawn from GFATM tools kits and WHO indicators so that malaria program data will be compatible to other country's data

**Impact indicators:** measure the changes in morbidity and mortality due to malaria.

The indicators are:

- Malaria death per 1000
- Incidence of clinical malaria cases (reported) per 1000.

**Outcome indicators:** measure the changes in people's behavior related to malaria treatment and prevention.

The indicators are:

- Proportion of households owning at least one ITN/LLIN
- Proportion of children under 5 who slept under an ITN/LLIN the previous night.
- Proportion of pregnant women who slept under an ITN/LLIN the previous night.

**Output indicators:** measure the changes in key variables that demonstrate that larger numbers of

individuals in the defined target groups are being reached by and benefit from services or interventions.

The indicators are:

- Number/proportion of malaria cases examined by RDT and/or Microscopy
- Number/proportion of clinical malaria cases with positive diagnosis examined by RDT and/or Microscopy
- Number/proportion of Pf cases receiving anti-malarial treatment
- Number/proportion of community service based providers (NGO) providing malaria diagnosis and treatment
- Number/proportion of people receiving diagnosis and malaria treatment through community service providers
- Number/ proportion of LLINs supplied to NGO partners
- Number/proportion of ITNs treated/ retreated
- Number/proportion of LLINs distributed
- Number/proportion of health facilities reporting timely, completely and accurately
- Number/proportion of people attended advocacy meeting/workshop.

**Input indicators:** measure the changes in key variables that demonstrate that larger numbers of individuals trained in the defined target groups are being reached.

The indicators are:

- Number/proportion of existing laboratory technicians retrained from the government health facilities
- Number/proportion of RDT procured and supplied to health facilities
- Number/proportion of new microscopic centers established and functional
- Number/proportion of new laboratory technicians trained
- Number/proportion of health facility with no reported stock outs lasting >1 week of nationally recommended anti-malarial drugs at any time during the past 3 months
- Number/proportion of health staffs trained on diagnosis and treatment
- Number/proportion of nurses and doctors trained on management of severe malaria
- Number/proportion of NGO partners health staff/volunteers trained on BCC
- Number/proportion of Rapid Response Team members trained
- Number/proportion of managers trained on partnership and program management

**Achievement**

- Buildup an organized & skilled Central Level Malaria Team
- 100% field staff in the Malaria areas are trained on Malaria EDPT
- 100% of the Microscopists are trained on Malaria Microscopy
- All divisional, district and upazila level Managers are trained on Program Management Training
- All the MIS Personnel are trained on Malaria MIS
- 870 Doctors and Nurses are trained on Management of Severe Malaria
- Revised Malaria Drag Regiment has been reviewed and modified
- 238 Rapid Response team members are trained on Management of Epidemic out break
- All the Malaria districts are reporting timely accurately and completely
- World Malaria Day was observed in Bangladesh for the first time in a befitting manner

- Well structured M&E plan has been developed for Malaria Control Activities
- Awareness about using of LLIN / ITN has been increased
- Treatment seeking behavior has been developed in the Malaria Area
- Prompt, effective and efficient treatment procedure has been introduced at the community level using Rapid Diagnostic Test (RDT) and Artemisinin based Combination Therapy (ACT).

### Future Plans

- Malaria Control Program needs to be reformed.
- Estimation of malaria disease burden
- Surveillance technique should be replaced by survey
- Practical and user friendly indicators introduced
- Program management strengthening by capacity building in program planning and management
- Staff with technical knowledge to be recruited.

### Identification of vulnerable population

- Identification of the population at risk and determination of appropriate intervention for them.
- Identification of behavioral risk factors
- Involvement of social scientists, anthropologists, etc.

### Focusing on Plasmodium vivax

- The burden imposed on health and socioeconomic condition by *P. vivax* need to be understood.
- Knowledge about epidemiology, impact and control measure to be upgraded.

### Integration of malaria into public health policy

- Prevention of malaria is a public health issue.
- To implement Integrated Vector Management (IVM) community needs to be mobilized.

### Integrated vector management

- IVM based on epidemiological situation of malaria, vector biology, behavioral character of the community.
- Integration of IVM with Integraled Pest Management (IPM).

### LLIN and IRS

- To scale up the use of LLINs from 10% to 100% of the households
- Combined approach of GO, NGO and civil society for the promotion of LLIN
- Use of Indoor Residual Spraying (IRS) on selective and complementary basis.


*Observation of World Malaria Day 2008*

## Filariasis Elimination Program

### Introduction

Lymphatic filariasis (LF), commonly known as elephantiasis, is caused by thread-like parasitic worms (*Wuchereria*

*bancrofti, Brugia malayi* and *B. timori*) that live in the human lymphatic system and lay the grounds of grotesque swelling of the scrotum, male genitalia, breast and limbs. Lymphatic filariasis is a group of disease caused by tissue-dwelling nematode worms belonging to the order "Filariidea" and transmitted to man by the infective bites of blood-sucking arthropods and is caused by three parasites namely Wuchereria bancrofti, Brugia malayi and Brugia timori; 90% of these infections are caused by Wuchereria bancrofti and the remaining by Brugia malayi and B. timari. The microfilaria (mf) larvae are transmitted by several species of female mosquitoes of Culex, Anopheles, Aedes and Mansonia species. Culex quinquefasciatus is a ubiquitous species and abundant in tropical and sub tropical countries. It is the principal vector of Bancroftian filariasis in Bangladesh and India.

More than 1 billion people are threatened by lymphatic filariasis, a devastating parasitic infection spread by mosquitoes. It is the most debilitating and disfiguring scourge among all diseases. Over 120 million people are infected in 80 countries, leaving more than 40 million incapacitated or disfigured, with 20% of the world's population living in risk of the disease. More than 95 percent of those at risk live in low-income countries. It is a major cause and consequence of poverty, preventing those afflicted from living a normal working and social life. It is one of the most major public health problems in many South-East Asian countries. Eight out of the ten countries in the Region are known to be endemic for filariasis. Though the disease is not fatal, it is responsible for significant morbidity causing disability, social stigma, psychosocial and economical burden on account of the costs for surgical intervention among men, women and children. The disease is also a major contributor to poverty.

LF is one of the seven infectious diseases (Poliomyelitis, Leprosy, Guinea Worm disease, *Filariasis*, Onchocerciasis, Measles and Chagas disease) considered eradicable with the available tools today. The elimination of LF will contribute to a significant reduction in morbidity, improvement in reproductive health, enhancement of child care and mother health and alleviation of sufferings from poverty. Recent advances in our understanding of the disease and the availability of safe preventative drug and new approaches to alleviation of existing symptoms has created an optimism in the scientific and public health community, that at last the disease can be eliminated as a public health problem. This task will be accomplished by a global partnership, the Global Program for the Elimination of Lymphatic Filariasis (GPELF), and will prevent the next generation of children being infected and subsequently afflicted. The Lymphatic Filariasis Support Centre, based at the Liverpool School of Tropical Medicine, UK and LF support Center, James Cook University, Australia play key role in this Global Program by providing advice, funding, liaison, training, research and facilitation.

## Background

The term filariasis encompasses a number of parasitic diseases caused by spirurid nematodes and spans a number of different pathological conditions: (i) Elephantiasis *Wuchereria bancrofti;* (ii) *Brugia malayi;* (iii) *Brugia timori;* (iv) Tropical River Blindness *Onchocerca volvulus and* (v) Manson's eye worm *Loa loa.* It was 1993 when the International Task Force for Disease Eradication identified LF as one of only six diseases meeting the criteria for being potentially eradicable. Since the tools were available that could eliminate it, the World Health Assembly in its 50th meeting passed a resolution (No. 50.29) in May 1997 proposing a public health goal for the global elimination of LF.

The principal strategy for achieving this goal was to prevent transmission of this mosquito-borne parasite by eliminating the infectious microfilaria from the blood of affected humans through yearly, safe single-dose treatment with a combination of 2 drugs (chosen from DEC, Ivermectin and Albendazole) of entire populations at risk for LF. Such treatment should continue for 4 to 6 years, the estimated reproductive life span of the adult stage parasite. Most countries in the South-East Asia Region have recorded impressive health gains in health and development in the 20th century. However, there are continuing differences between and within countries. Gains in the control of communicable diseases are substantial. Smallpox has been eradicated. Guinea worm infection is on the verge of eradication. Poliomyelitis is expected to be eradicated by the year 2000. Measles and neonatal tetanus will soon follow suit. Leprosy, one of the most ancient scourges, will be eliminated during the next ten years. The list of tropical diseases to be eradicated/ eliminated is long.

Though progress in the control of communicable diseases has been commendable, these diseases remain the leading cause of death, disability and lack of productivity worldwide. Countries in our Region contribute nearly 41% of the total 17 million deaths each year. In addition, these diseases lead to loss of productivity and compound poverty.

An estimated 120 million people are infected with filaria of whom about 45 million are in India. Visceral leishmaniasis (Kala-azar) has been reappeared during the last ten years. Nearly 110 million people are at risk. This problem is becoming serious with the spread of AIDS pandemic because of the linkages between Kala-azar and HIV/AIDS. LF is currently endemic in 80 countries.

## Global situation

Lymphatic filariasis (elephantiasis) is a painful and profoundly disfiguring disease, usually acquired in childhood, that has major social and economic impacts in Asia, Africa, the Western Pacific and the Americas. About 120 million people are infected worldwide and at least 40 million disabled both physically and psychosocially; 1.2 billion people are believed to be at risk of infection. Lymphatic filariasis is a significant cause of poverty among rural and urban populations in over 80 endemic countries; lymphatic filariasis elimination will be a key component for global poverty alleviation, which furthermore, focuses on the poorest 20% of the world's population. One-third of the infected individuals live in Africa, one third in India, and most of the remainder in South Asia, the Pacific Region and the Americas. India, Nigeria, Bangladesh, Indonesia, Democratic Republic of Congo, Philippines and Madagascar are among the most endemic countries. Approximately US$2 billion are lost annually to patient treatment cost and reduced working time. US$100 million needed to cover 350 million at risk by 2005; Funds cover Di Ethyle Carbamazine (DEC), social mobilization, training, Mass Drug Administration (MDA), monitoring and evaluation.

The global goal of elimination of LF is a significant opportunity for partnerships– a world with less poverty through sustainable development and free from scourge of LF.

## The Global Alliance for Elimination of Lymphatic Filariasis (GAELF)

The Global Alliance for Elimination of Lymphatic Filariasis (GAELF) is a free, non-restrictive broad partnership forum that unites national Ministries of Health and more than 40 diverse public and private partners including the World Health Organization, companies within the private sector, international development agencies and foundations, non-government organizations, research institutions, and local communities. It was formed during its 1st meeting (GAELF 1) at Santiago de Compostela (Spain) in May 2000.

The Global Alliance mobilize political, financial and technical expertise to support the Global Program to Eliminate LF and to achieve its ambitious goal of Global ELF by 2020.

The series of meetings that were held periodically are:

**1st meeting (GAELF 1):** discussions focused on:

(i) Role of NGOs in National programs

(ii) Effective country action including funding, communication and information needs

(iii) To maximize regional cooperation.

**2nd meeting (GAELF 2):** New Delhi, India – May 2002; theme was focused on:

(i) Poverty alleviation through the elimination of lymphatic filariasis

(ii) To maximize Global as well as national level partnership

**3rd meeting (GAELF 3):** Cairo, Egypt – on 23 – 25 March 2004; the themes were –

(i) To recognize the remarkable progress of the Global Program to eliminate lymphatic filariasis

(ii) To communicate the achievements and challenges of the country programs to eliminate LF

(iii) To agree a proposal for the future structure.

**4th meeting (GAELF 4):** Fiji – on May 2006:

### Suggested theme

"Towards the Global Elimination of Lymphatic Filariasis - Successes and Challenges"

### Suggested objectives

(i) To promulgate the successes of the Global Program to date

(ii) To delineate and address the challenges which the program faces

(iii) To identify and address Program needs

(iv) To review and endorse Alliance's partnership development

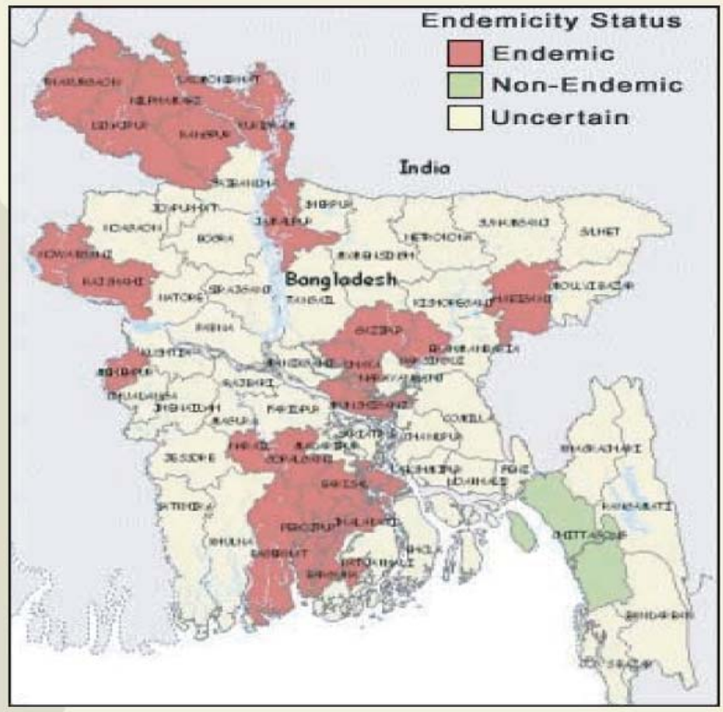
By the end of the program, GSK will donate approximately five to six billion albendazole tablets for people in 80 countries. In addition to providing albendazole, GSK is supporting the Global Alliance for the Elimination of LF through help with coalition-building, planning, training, research and communication initiatives.

Government of Bangladesh is committed to eliminate Lymphatic Filariasis from Bangladesh by 2015. The Ministry of Health and Family Welfare initiated the LF elimination program in 2001 with assistance from AUSAID and WHO and up scaled to cover 4 districts in 2002 with funding assistance from the Liverpool School of Tropical Medicine, and WHO, plus albendazole donated by GlaxoSmithKline (GSK). The supplies of DEC were provided by WHO through a grant from the Bill and Melinda Gates Foundation. Accordingly MDA was started among 0.85 million population in 1 district (Panchagar) in 2001 and scaled up to 27.0 million population in 17 districts in 2007.

The strategy for mass drug administration is door-to-door by health and family planning field staff and volunteers. Drugs are also administered in schools, mosques, cinemas, shopping complexes and bus stations, using volunteers, boy scouts and girl guides. The MDA is communicated to the population by an extensive social mobilization program using films show, bill boards, leaflets, audiocassettes, posters, banners, painting of Bus, TV and Radio advertisement, News paper Advertisement etc. Bangladesh has a sound healthcare infrastructure which enabled to carry out house to house treatment and achieve over 80% coverage every year.

## ACTIVITIES OF ELF

- MOHFW, GOB is committed for ELF by 2015
- National Task Force for ELF was formed with 15 members
- ICT survey is completed in all 64 Districts (IU)
- 34 districts with 70 million populations are at risk
- MF survey is conducted in 40 districts (IU)
- MDA was launched in 2001 in 1 district (IU)
- In 2007 round MDA (Nov 2007 – Feb 2008) was up-scaled up to 17 districts
- Morbidity control including hydrocelectomy is ongoing
- STH Control Activities among school children (6-16 years) started from 2005 and now on going.
- The MDA is communicated to the population by an extensive social mobilization program using films show, bill boards, leaflets, audiocassettes, posters, banners, painting of Bus, TV and Radio




*Bangladesh situation*

## Activities, Targets and Achievements in 2007

| Activities | Targets | Achievements |
|---|---|---|
| 1. Mass Drug Administration (MDA) by two drugs (Tab DEC and Tab Albendazole) (> 2years and older) | To cover the entire population of 17 districts | MDA was carried on among 27.0 million population of 17 districts |
| 2. Social Mobilization Action (SMA) | To create awareness on filariasis and its elimination in 17 districts | Carried on MDA program area |
| 3. Morbidity Training | To train 7908 LF patients on morbidity control management | 7908 LF patients were trained |
| 4. Hydrocele Operation | To perform hydrocele operation among 9884 patients | |
| 5. Kit Box D9884 Hydrocele patients were operatedistribution (KBD) | To distribute kit box among LF patients of 10 districts | Kit boxes were distributed among LF patients of 10 districts |
| 6. Micrfilaria Survey (MFS) | To conduct MF survey in 10 districts | MF survey were conducted in 10 districts |
| 7. Post MDA Coverage Survey (PMDACS) | To conduct post MDA coverage survey in 15 districts | Carried on 9 districts |
| 8. STH Control activities | * To de -worm 6-16 years school students of 24 districts.<br>* To conduct training on STH control, sanitation and hygiene among 20119 teachers | * 6-16 years school students of 24 districts were de-wormed.<br>* 20119 teachers were trained |

advertisement, news paper advertisement, etc. Bangladesh has a sound healthcare infrastructure which enabled to carry out house to house treatment and achieve over 80% coverage every year.

### Recommendations

- Allocation of adequate and timely release of fund
- Provision of sufficient drugs and logistics
- Strong monitoring and supervision system to develop
- Strengthening of coordinated multi-sectoral approach for successful implementation of STH activity
- Home and abroad training is needed to share the experiences
- More operational research to be conducted on LF and STH control activities
- Creation of awareness regarding LF, de-worming, sanitation and hygiene practice, etc.
- Adequate official and supporting staff to be posted / recruited
- A time bound parasitic disease control policy and strategy is to be approved
- Appropriate and adequate IEC activities and materials need to be developed

### Future plan

- To cover 74.0 million population (at risk) of 34 endemic districts
- Morbidity control as well as hydrocelectomy operation will be carried out among 4 million clinically

deformed filariasis patients

- To cover 75% to 100% school children under de-worming by 2010
- Co-ordination with partners working on STH control
- Approval of time bound parasitic diseases control policy with timely implementation
- Improvement of water, sanitation and hygiene and health education through school based approach

## Kala-azar Elimination Program

### Introduction

Kala-azar or Visceral Leishmaniasis is one of the complex of diseases, called leishmaniasis and is caused by the trypanosomatid parasite Leishmania donovani. In the Indian sub-continent it is transmitted by the sand fly, Phlebotomus argentipes. The disease presents with fever of long duration (more than two weeks) with splenomegaly, anemia, and progressive weight loss. In endemic areas, children and young adults are its principal victims. Without timely treatment the disease is fatal. Kala-azar HIV co-infection has been emerged as a health problem in recent years.

### Background

India, Bangladesh and Nepal are committed to Kala-azar elimination program with the target of achieving disease elimination by 2015. The political commitment for elimination of Kala-azar is high. In May 2005, the three countries signed a Memorandum of Understanding (MOU), in Geneva during the World Health Assembly, committing themselves to mutual cooperation towards elimination of kala-azar from their respective countries.

A Regional Strategic Plan has been prepared and endorsed by the WHO SEARO Regional Technical Advisory Group (RTAG) and partners supporting elimination. The second meeting of RTAG held in Kathmandu in October 2006 recommended that WHO should prepare guidelines and standard operating procedures to ensure the application of interventions in the endemic countries uniformly.

### Current global and country situation

Kala-azar is seen in several countries of the world. About 500,000 cases occur annually. Five countries, namely India, Sudan, Nepal, Bangladesh and Brazil account for 90% of the global cases. Kala-azar affects largely the socially marginalized and the poorest communities. In the South East Asian Region, kala-azar occurs in India, Bangladesh, and Nepal. A small focus has also been reported from Bhutan. In the three countries of the region about 200 million people in 109 districts are "at risk". In India 52 districts in the four States, e.g. Bihar, Jharkhand, West Bengal and parts of Eastern Uttar Pradesh are at present endemic for the disease. In Nepal 12 districts, neighbouring to the states of Bihar and Uttar Pradesh are endemic whereas in Bangladesh Kala-azar has been reported in 45 districts. During the 'Malaria Eradication Program' blanket DDT spraying controlled kala-azar transmission. In the late 1970s kala-azar re-emerged sporadically. During 1981-85 only 8 upazilas (sub-districts) reported kala-azar, which increased to 105 upazilas in 2004. During the last few years the kala-azar situation has assumed epidemic proportion with the number of reported cases increasing from 3978 in 1993 to 8505 in 2005. Present surveillance is weak and the current estimated total cases are about 45,000. Annually 10,000 cases are treated by the control program but the cases treated by the private clinics and practitioners are not reported.

## Component programs

1. Early diagnosis and complete treatment.
2. Integrated vector management
3. Effective disease surveillance
4. Social mobilization and partnership
5. Operational research

**Objective:** Elimination of kala-azar by 2015

**Target:** Less than one case per 10,000 populations in endemic upazilas of Bangladesh.

## Activities

1. Training of the master trainers (doctors) on kala-azar elimination program
2. Training of nurses, medical technologists and health workers (HI, AHI, HA, MA)
3. Training of master trainers on insecticide spraying and training of spray men
4. Advocacy meeting with opinion leaders, teachers and students, imams, etc.
5. Procurement of drugs, insecticides, RDT, spray machines, PPE, etc.
6. Development and printing of IEC materials
7. Development and broadcast of TV and radio spot
8. Development and showing of documentary films.

## Process of implementation

1Preparatory phase (2005-07)

2Attack Phase (2008-11)

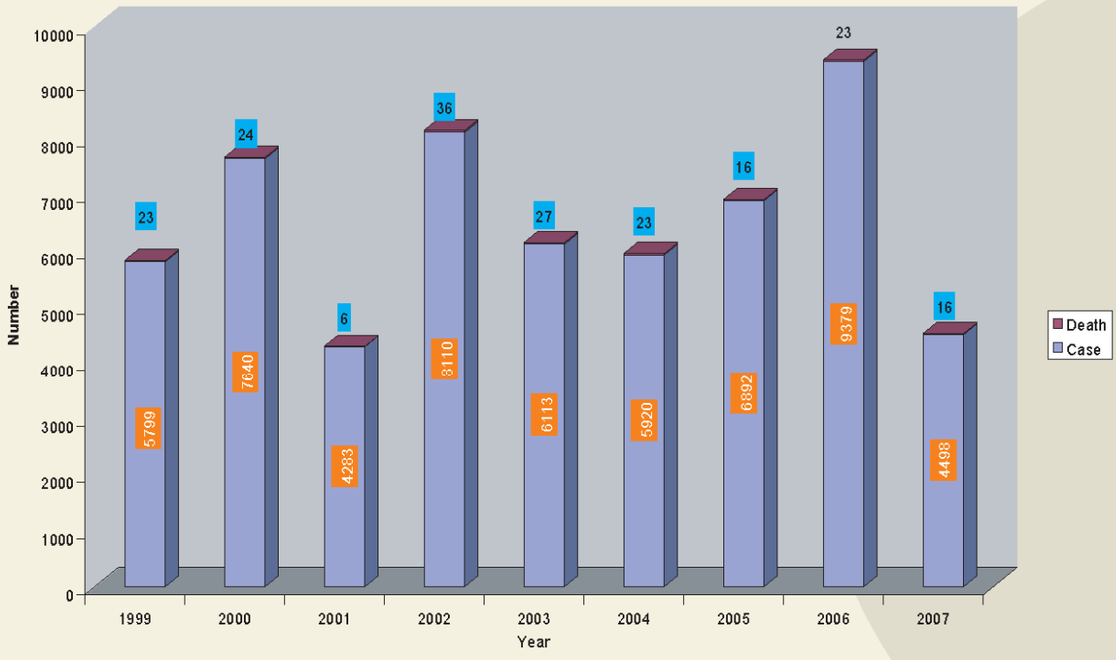
3Consolidation Phase (2012-14)

4Maintenance Phase (2015 and beyond)

## Achievements

1. 639 doctors have been trained on kala-azar elimination program
2. 91 master trainers on insecticide spraying have trained

**Yearwise Kala-azar Cases & Death (No.)**

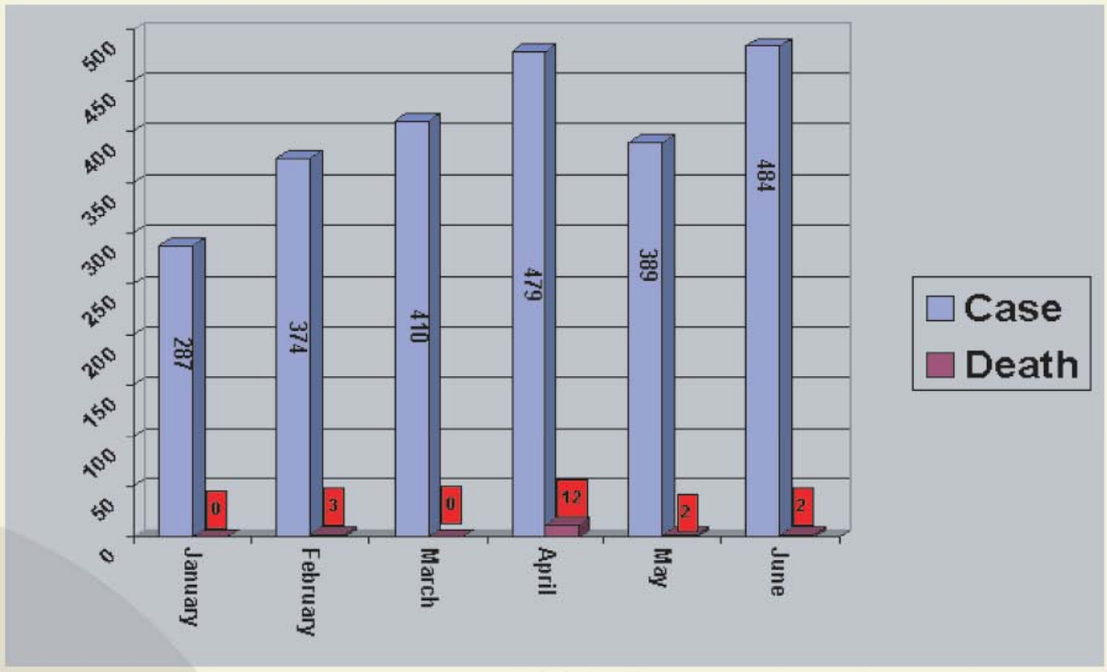


3.51 medical technologists have been trained

4.248 field workers have been trained on kala-azar elimination program

5. A National guideline for Kala-azar Elimination, module for insecticide spraying, module for medical technologists and a booklet for health workers have been developed

**Total number of kala-azar cases (January 2008 to June 2008) : 2423**
**Total number of deaths (January 2008 to June 2008) : 19**




Kala-azar cases in 2008 (January-June)

*Field Workers' Training Program*

*Training of Master Trainers on Insecticide Spraying*

6. Development of strategic plan for Kala-azar Elimination
7. One National Consultant was recruited by WHO
8. Procurement of drugs, diagnostic tools, insecticides and spray machines in process.

## *AVIAN Influenza Control and Prevention*

### Introduction

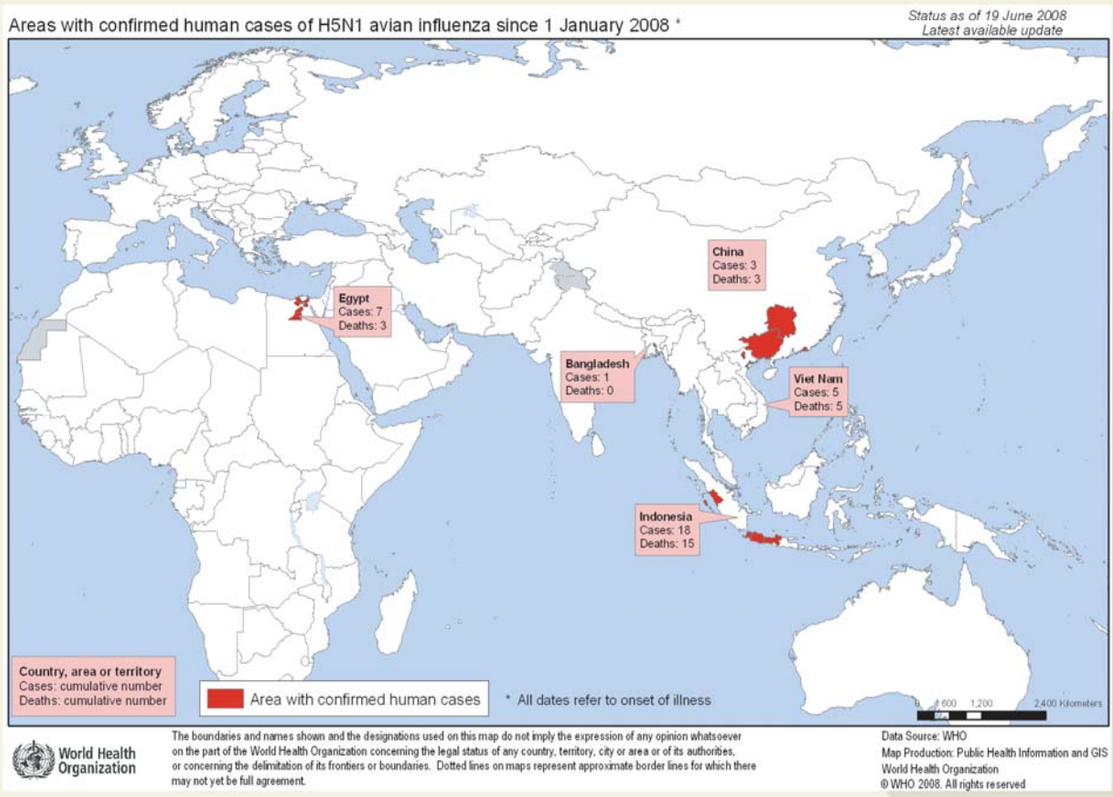
The current avian influenza is a zoonotic viral disease caused by a sub type of Influenza A known as Avian Influenza H5N1 (AI/H5N1). The disease is also known as bird flu. The virus is new infecting both birds and human having the potential to cause a pandemic with huge morbidity and mortality comparable to the great pandemics of 1918 ("Spanish flu"), 1957 ("Asian flu"), 1968 ("Hong Kong flu"), and 1977 (H1N1 virus).

### Background

AI/H5N1 was first identified among sea birds in 1961. First outbreak among poultry and human occurred in Hong Kong in 1997. After 5 years the outbreak of AI/H5N1 started again and has been continuing. Recent avian influenza outbreaks in several countries demonstrate that the H5N1 virus remains a global threat that requires close monitoring and strong control efforts.

### Global situation

Globally much progress has been achieved in keeping the H5N1 avian influenza virus under control. Surveillance, early detection and immediate response are improved and many newly infected countries have managed to eliminate the virus from poultry. Indonesia remains one of the worst affected countries. Currently 61 countries reported avian influenza in poultry and out of them 15 countries



reported human infection of the virus. In these 15 countries, there are 385 cases have been reported with a death report of 243. This reflects the case fatality rate of 61%.

**Country situation** (Up to May 22, 2008) :

- Number of case detected: 01
- Bangladesh declared first case of human H5N1 on May 22, 2008
- FA 15 months old boy from Dhaka
- Onset of illness: January 20, 2008
- Recovery: January 31, 2008
- Exposure History: Exposed to chicken slaughtering at home and ate half boiled egg
- Reported to one of the surveillance centers with fever, running nose, mild cough, loose stool, sore in tongue and sweating
- Samples were collected as a routine surveillance for seasonal influenza
- Diagnosed as Influenza A and subtype could not be done as it was un-typable
- Samples sent to CDC, Atlanta, USA for sub-typing
- Report confirmed from CDC on May 21, that it was a case of H5N1
- The Virus belonged to Class 2.2, corresponding with the viruses in poultry in Bangladesh as well as has

## Cumulative Number of Confirmed Human Cases of Avian Influenza AI/(H5N1) Reported to WHO as of 19 June 2008

| Country | 2003 | | 2004 | | 2005 | | 2006 | | 2007 | | 2008 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | cases | deaths | cases | deaths | cases | deaths | cases | deaths | cases | deaths | cases | deaths | cases | deaths |
| Azerbaijan | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 5 | 0 | 0 | 0 | 0 | 8 | 5 |
| Bangladesh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| Cambodia | 0 | 0 | 0 | 0 | 4 | 4 | 2 | 2 | 1 | 1 | 0 | 0 | 7 | 7 |
| China | 1 | 1 | 0 | 0 | 8 | 5 | 13 | 8 | 5 | 3 | 3 | 3 | 30 | 20 |
| Djibouti | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Egypt | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 10 | 25 | 9 | 7 | 3 | 50 | 22 |
| Indonesia | 0 | 0 | 0 | 0 | 20 | 13 | 55 | 45 | 42 | 37 | 18 | 15 | 135 | 110 |
| Iraq | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 3 | 2 |
| Lao s People's Democratic Republic | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 |
| Myanmar | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Nigeria | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| Pakistan | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 3 | 1 |
| Thailand | 0 | 0 | 17 | 12 | 5 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 25 | 17 |
| Turkey | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 4 | 0 | 0 | 0 | 0 | 12 | 4 |
| Viet Nam | 3 | 3 | 29 | 20 | 61 | 19 | 0 | 0 | 8 | 5 | 5 | 5 | 106 | 52 |
| Total | 4 | 4 | 46 | 32 | 98 | 43 | 115 | 79 | 88 | 59 | 34 | 26 | 385 | 243 |

similarity with the viruses of Kuwait, Afghanistan, West Bengal and Pakistan.

Presently the boy is in good health and is kept under surveillance.

- Avian Influenza Ward in Asthma Center of National Institute of Diseases of Chest and Hospital (NIDCH) has been established.
- Setting up of isolation units in all district hospitals due to be completed by the end of September 2008.
- DGHS also stockpiled 50 thousand sets of Personal Protective Equipment (PPE) and decontamination agents (Cloteck 50,000 in 500ml bottles, solution for hand wash 5000 in 100ml bottles), waiting to be distributed at district level.
- WHO procured and in the process of further procurement of adequate number of Personal Protective Equipments (PPE) for rapid response teams and in case of suspected outbreaks
- Initiatives have been taken to set up a modern Influenza Referral Laboratory with skilled laboratory personnel at Institute of Epidemiology, Disease Control and Research (IEDCR). A Biosafety Laboratory (BSL-2) lab is in the final stage of development at IEDCR.
- IEDCR has established collaborative link with Centers for Disease Control and Prevention, at Atlanta, USA for providing laboratory and technical

**Avian Influenza Situation in Poultry: Reported by the Department of Livestock, Ministry of Fisheries and Livestock as on June 25, 2008.**

| Poultry Culling Status | |
|---|---|
| First Declaration | : March 22, 2007 |
| No. of districts with confirmed H5 virus (Upazilla -128, Metro Thana-14) | : 47 |
| No. of farms with confirmed H5 virus | : 287 |
| No. of culled farms | : 547 |
| Last outbreak reported on | : May 18, 2008 |
| Culling of Poultry up to 24/06/2008 | :1,637,266 |

### Actions specifically taken by Ministry of Health and Family Welfare

- A Technical committee chaired by the Director General of (Health Service) has been formed with Director (Disease Control) as the focal person.
- Operational Plan revised to accommodate the Avian/Pandemic Human Influenza as a Components and World Bank has sanctioned 16.114 Million USD for this activity.
- All divisional, district and sub-district level health managers of the country were oriented on avian/human pandemic influenza through series of workshops (with support from UNICEF and WHO).
- Central Medicine Store Department (CMSD), DGHS has already stockpiled a total of 400 thousand capsules and 1000 pediatrics syrup of the anti-viral drug Oseltamivir for management and prophylaxis of avian influenza in addition to several varieties of supportive drugs that may be required for the treatment of Avian influenza.

support to perform confirmatory test on samples from suspected cases of AI/H5N1, should the need arise.

## Some recent progresses

- IEDCR conducted training on rapid response to the Avian/Human Pandemic Influenza for 64 District Rapid Response Teams and 471 Sub-district Rapid Response Teams with support from UNICEF
- NIDCH conducted training for the clinicians with support from WHO.
- IEDCR has developed 11 modules depicting all aspects of Avian/Human Pandemic Influenza with support from UNICEF
- A total of 3700 medical personnel have been trained on basics of Influenza, Case Management, Outbreak Investigations and on Infection Control
- A total of 947 physicians were trained on AI management by DGHS
- 7565 Health staffs (HI/AHI/HA) were oriented on AI by DGHS
- IEDCR also developed a laminated picture card to train community level volunteers highlighting the prevention and awareness campaign messages on AI with support from UNICEF
- A total of 226100 volunteers have been trained on prevention and control of AI with special emphasis on infection control with support from UNICEF
- House to house awareness campaigns being conducted by the volunteers and approximately 28 million people have been oriented on AI with supports from UNICEF
- A proposal from MOHFW/IEDCR, for "Surveillance and Response to Human Pandemic Influenza" has been recently awarded with a grant (about US$ 375,000/year) for next five years from CDC, USA for strengthening of laboratory capacity of IEDCR and development of a Web-Based Real Time Surveillance System. The TAPP of the project proposal is already approved by the Planning Commission and already have received the administrative approval from the MOHFW
- MOHFW/IEDCR with grant from CDC, USA establishing the real time web based disease surveillance for AI at districts
- Microbiologist and virologist were trained on laboratory diagnosis of Avian Influenza
- A Laboratory manual on diagnosis of Avian Influenza has been published by IEDCR with support from Director (CDC), DGHS
- IEDCR with technical support from SEARO, WHO conducted the training of the trainers on Rapid Containment of Pandemic Influenza in June 2008.

## Influenza Surveillance

- IEDCR and ICDDR,B are conducting influenza like illness surveillance in 12 medical colleges and district hospitals across the country
- 1919 samples tested so far, and 116 samples were positive for Influenza ( Influenza A: 44, Influenza B:72, Among Influenza A, 29 were H1 and 15 were H3, No H5 was detected)
- IEDCR will soon start surveillance of Influenza like Illness (ILI) in 18 sentinel hospitals and has plans to cover all 64 districts hospitals phase wise for surveillance of Viral Pneumonia.
- A research project is undergoing on Oseltamivir to see the drug resistance pattern in circulating influenza viruses by IEDCR and ICDDR,B.

## We are continuing our efforts to:

- Strengthen national collaboration, coordination and communication mechanisms

- Activate all relevant committees and task forces as outlined in the national plan
- Mobilize the required resources to implement the plan

  Strengthen the monitoring and surveillance systems
- Upgrading the national referral laboratory at IEDCR to BSL-3 level with improved bio-security features
- Develop clinical guidelines to improve clinical management
- Prepare contingency plan – hospital, staff and capacity strengthening in clinical care and isolation practices in light of perceived enhanced demand
- Stockpile seasonal influenza vaccines, anti-virals, PPE and diagnostics
- Development of SOPs on clinical management
- Review of the National Preparedness Plan.

## Emerging and Reemerging Diseases

### Introduction

Emerging infectious diseases are those whose incidence in humans has increased during the last two dec ades or which threaten to increase in the near future. The term also refers to newly appearing infectious diseases or diseases that are spreading to new geographic areas.

The term re-emerging diseases refers to the diseases which were previously easily controlled by chemotherapy and antibiotics, but now they have developed antimicrobial resistance and are often appearing in epidemic form.

### Background

As the SARS epidemic of 2003 illustrated so clearly, all the regions and peoples of the world are susceptible to new infectious disease threats that can appear suddenly and in full force. This is why the knowledge of emerging and re-emerging diseases needs to be updated in our country, so that we will be able to take prompt decision to manage the life threatening condition.

### Current Country situation

The current country situation of these diseases needs attention which is as follows:

**Avian influenza:** Recently a case of AI has been identified in our country though it didn't claim any lives yet.

**Nipah virus infection:** Six outbreaks of human encephalitis in Bangladesh were found to be caused by Nipah virus over last seven years.

**HIV:** In Bangladesh, the first case of HIV was detected in 1989. Up to December 2007, the number of reported cases of HIV infection is 1207 with 365 cases developing AIDS. The total number of HIV positive cases is estimated to be about 7,500 in Bangladesh. The estimated number is 12,000 to 20,000.

### Malaria

| | | |
|---|---|---|
| o | Population at high risk | : 26.2 million |
| o | Under fives at high risk | : 3.9 million |
| o | Pregnant women at high risk | : 0.84 million |
| o | National annual deaths | : 719,thousands (2002) |
| o | Deaths attributed to malaria | : 0.08% |
| o | Reported prevalence | : 0.06% |
| o | Estimated prevalence: | : 0.24 |
| o | Reported prevalence in high endemic area | : 0.34% |
| o | Estimated prevalence in high endemic area | : 1.34% |

So far 123 people have died of HIV/AIDS in Bangladesh.

### Viral hepatitis

- HAV – common
- HBV – prevalence is between 2-7%
- HCV – less than 1%
- HDV – not exactly known
- HEV – sporadic outbreak is common with some large outbreaks

**Poliomyelitis:** In Bangladesh 61 cases of polio were reported during 1996-2000 and the disease started to decline through extensive activities of EPI. The country was about to achieve eradication status with no polio reporting during 2001 to 2005 but in 2006 it reappeared affecting 18 children. After that, no case has been reported till May 2008.

### Dengue

- Outbreak in 1960 as Dhaka fever
- In 2000 a huge outbreak of Dengue occurred in Bangladesh with about 5541 cases with 93 deaths (CFR 1.68%).
- Up to 2007, there are 22,212 cases with 221 deaths in Bangladesh (CDC, DGHS)

**Chikungunya:** In Bangladesh no case has been reported so far. In 2005, 367 blood samples of febrile patients collected from Dhaka by IEDCR were examined for Chikungunya at CDC, Atlanta and found negative. But this disease can outbreak in Bangladesh because it is already found in India (West Bengal, Mumbai etc).

**Kala-azar:** From 1999 - June 2008 a total number of 63480 cases and 232 deaths have been reported from about 34 districts of the country and the number is increasing day by day.

**Enteric fever:** Though there is no reliable statistics, but enteric fever is thought to be one of the most important causes of fever in Bangladesh with high morbidity. Emergence of antibiotic resistance is another factor that is making the disease difficult to deal with.

**Anthrax:** **Though** Anthrax is not reported in Bangladesh but i**n an unpublished report 19 cases of cutaneous anthrax are claimed to be diagnosed from 624 tannery workers of Dhaka City (IEDCR).**

**Leptospirosis:** Though there is no representative data on prevalence of leptospirosis in Bangladesh but from some laboratory and study findings the disease is thought to prevail in the country. In a group of hospitalized patients during 2001 dengue outbreak in Dhaka 17% of the 362 patients were found to have leptospirosis.

**Mass Psychogenic Illness:** Recently a number of MPI outbreaks occurred in Bangladesh; about 100 were affected in 2006 and about 521 persons in 2007. Most of them were school students and female.

**Diarrhea:** During the past few years, the highest recorded diarrhea cases occurred in the year of 2002 and the recorded number was 25,99,225 with deaths of 1022. Since then the diarrheal cases decline gradually. In 2007 diarrhea cases were 15,51,209 with deaths of 272.

**ARI:** In Bangladesh, ARI constitute 30-50% of pediatric attendances and 10-30% of child admission to hospital. According to DGHS, in 2003 among 419264 pediatric attendants in hospital settings, 1696 were diagnosed as ARI.

**Snake bite:** In Bangladesh there are about 78 species of snake of which 26 are poisonous. Estimated incidence of snake bite in Bangladesh is 8000 cases with about 1600 deaths.

## Emergency Preparedness and Response Program

### Objectives

- To strengthen the overall capacity/ capability, to reduce the risk of the health sector to prevent and /or mitigate the adverse health consequences of emergencies/ disasters
- To strengthen institutional co-ordination and co-operation by establish a National Health Emergency Preparedness & Response Center as an institute
- To achieve the Govternment Vision as per MDG, WCDR and the recommendations "Option for Flood Risk and Damage Reduction in Bangladesh"17th April 2005
- Supply of essential medicine including WPT and ASV, emergency response vehicle, equipments and other logistics for emergency response
- Review and updating of the SOP and Training manuals.

### Strategy

By conducting Workshop, Seminar, Advocacy Meeting/Training and Simulation exercises at all operational levels in health sector.

Procurement of essential medicine, emergency response vehicle, equipments and other logistics for emergency response.

To maintain "Buffer stock" for emergency management.

Hiring of a house to establish disaster management institute for health sector

### Activities

- Conducting workshop on vulnerability and capacity assessment for heath personnel for various tires
- Conducting orientation course for field staff on Disaster Mitigation.
- Organizing orientation course for Disaster Focal Points from Divisional and District Health Managers.
- Workshop on Search, Rescue, Evacuation and First Aid for Community level peripheral health workers and health volunteers.
- Training course on Mass Casualty Management for hospital level staffs.
- Workshop on Preparedness and Response in Emergency (Natural and Man made), for Health personnel
- Organizing of joint simulation exercise with at most cyclone prone districts. (Multi-sect oral approach)
- Procurement of essential medicine, emergency response vehicle, equipments and other logistics for emergency response including Bleaching powder and Water Purifying Tablet (WPT).

### Future Plan

- To cover the above mentioned activities throughout the country right from National level to the grassroots level health workers and volunteers of CBOs.
- To establish a National Health Emergency Preparedness and Response Center to strengthen institutional co- operation and co-ordination.

## Major Activities and Achievements of Emergency Preparedness and Response Program in year 2008

| Sl. No. | Major Activities | Target | Batch (Person trained) | Achievement |
|---|---|---|---|---|
| 01 | TOT on Preparedness & Response in Emergency (Natural & Man-made) | 04* (120)** | 04* (120)** | 100% |
| 02 | Conduct vulnerability & Capacity assessment for peripheral heath personnel. | 21* (630)** | 21* (572)** | 91% |
| 03 | Workshop on Mass Casualty Management for hospital level staffs. | 6* (180)** | 6* (169)** | 94% |
| 04 | Workshop on Preparedness & Response in Emergency (Natural & Man made), for District level Health Managers | 10* (600)** | 10* (588)** | 98% |
| 05 | Procurement of drugs including Bleaching powder & WPT for Emergency Response | 3438 (Released) (Tk. In Lakh) | 3068 (Expensed) (Tk. In Lakh) | 90% |
| **Programs of BAN EHA up to June 2008** | | | | |
| 06 | Mass Casualty Management | 06* (210)** | 06* (198)** | 94% |
| 07 | Psychosocial Support | 03* (135)** | 03* (133)** | 99% |

* Batch, ** Person

*Workshop of the Field Level Workers on EPR Program at Anwara Upazila*


*Workshop of the Health Personnel on EPR Program*

# Mycobacterial Disease Control

## Introduction

Under HNPSP, Mycobacterial Disease Control as in the part, encompasses control of Tuberculosis and Leprosy Elimination Program. Though the TB and Leprosy Control Program, which is under implementation with an aim to eliminate leprosy and control TB, GOB has achieved considerable success. These efforts will continue during HNPSP to achieve the above mentioned aims. The Multi Drug Therapy (MDT) for leprosy and Directly Observed Treatment-Short course (DOTS) for TB will continue through the existing delivery mechanism.

There are two components working under MBDC directorate:

1. National Tuberculosis Control Program (NTP)
2. National Leprosy Elimination Program

## National TB Control Program

### Introduction

Tuberculosis remains a major public health problem in Bangladesh since long, infecting more than 50% of the adult population. Every year more than 300,000 people develop active TB; nearly 50% of them have infectious pulmonary disease and can spread the infection to others. Introduction of DOTS strategy has already reduced the numbers of death, but about 65,000 people continue to die every year from this disease.

Under the Mycobacterial Disease Control (MBDC) unit of the Directorate General of Health Services (DGHS), the National Tuberculosis Control Program (NTP) is working with a mission of eliminating TB from Bangladesh.

The NTP adopted the DOTS strategy and started its field implementation in November 1993. The program progressively expanded to cover all Upazilas by mid-1998. In 2002, DOTS was expanded to Dhaka Metropolitan area and by 2003, 99% of the country's population was brought under DOTS services. At present TB diagnosis and treatment service are available throughout the country free of cost.

The quality of NTP continues to improve. High treatment success rates were achieved from the beginning and the target of 85% treatment success has been met since 2003. The program has successfully treated 92% of the new smear positive cases registered in 2006 and has detected 72% of the estimated new smear positive cases in 2007.

### Background

NTP is integrated into the general health services, under the Divisional Directors (Health), the Civil Surgeons and the Upazila Health and Family Planning Officers (UHFPO), responsible at each level. They are responsible to co-ordinate and supervise the NTP services provided by the designated staff and organizations including NGOs to strengthen the program at various levels.

### The services of TB diagnosis and treatment, free of charge, offered by the national program are presently available at

- All Upazila Health Complexes (UHCs), 44 Chest Disease Clinics (CDCS),
- 8 Chest Disease Hospitals linked to Chest Disease Clinics,
- Divisional Chest Disease Hospitals,
- National Institute of Diseases of Chest

and Hospital (NIDCH), Dhaka,

- Government Leprosy Hospital in Nilphamari
- Urban health centers in Barisal, Chittagong, Dhaka, Khulna, Rajshahi and Sylhet metropolitan cities (GoB and NGOs)
- Public and Private Medical College Hospitals
- Work places, Prisons , Combined Military Hospitals and other Defense Hospitals run by Bangladesh Rifles, Bangladesh Police and Bangladesh Ansar
- District Sadar Hospitals

Three major objectives have been identified. The activities carried out presently under the 3rd round and 5th round GFATM grant and other financial sources (GOB, USAID).

## Goals and Objectives

**Goal:** The Goal is to reduce the mortality, morbidity and transmission of TB until it is no longer a public health problem in Bangladesh.

## Objectives

1 To sustain the achieved 70% case detection and 85% treatment success rate among smear positive TB cases under DOTS

2 To reach the interim target of halving the TB death rate and TB prevalence by 2010 towards achieving a reduction of incidence of TB, as stated under MDGs (2015)

3 Address the issues of drug resistance

Under these 3 main objectives the following eight service delivery areas have been identified:

### Under objective 01

(1) Strengthening of current DOTS activities. This SDA includes all activities related to filling up the gaps in implementing DOTS

(2) Involving the private sector health care providers in delivering TB/DOTS services

(3) Developing joint TB/HIV collaborative activities

(4) Creating demand for services by introducing comprehensive advocacy, communication and social mobilization activities

### Under Objective 02

(5) Strengthening the procurement and supplies system

(6) Strengthening supervision, monitoring and evaluation

### Under Objective 03

(7) Establishing culture and drug-sensitivity testing capacity and undertaking drug resistance surveys

(8) To set up DOTS-plus projects for the management of multi-drug resistant TB (MDR-TB).

## Priority Activities of the OP are :

1. Capacity Building (HRD) for improving quality of services
2. Procurement of drugs, equipments and other logistics for Tuberculosis Control
3. Printing, Publicity & Research
4. Supervision, monitoring & other Management Services for improving program management
5. Ensure quality of Lab. services and diagnosis of MDR TB by establishing national and regional reference Lab.

## Targets

| Indicator(s) | Unit of Measurement | Benchmarks (with Year and Data Source) 2002 | Projected Target | | |
|---|---|---|---|---|---|
| | | | Mid-2003 (Projected) | Target for Mid-2006 | Target for Mid-2010 |
| Case Detection Rate | Percentage of smear positive TB cases detected among 100,000 population | 34% | 41% | 65% | 75% |
| Cure Rate | Percentage of smear positive cases cured among the smear positive cases detected | 84% | 84% | 85% | 95% |
| Number of DOTS Center | Number of cases under treatment /10000 pop. | 525 | 534 | 654 | 800 |

## Current global and Country Situation with respect to each program / activity (Indicators, targets, etc)

In 2007 NTP has achieved over 92% treatment success rate against the target of 85% and the case detection rate has increased from 38% cases (sputum positive) in 2003 to 71% in 2007 against the target of 70%. Considering the above scenario in case detection and treatment success rate in Bangladesh continued and effective health education effort is crucial to sustain high case detection rate to reach global MDG target within 2015.

Medical care through hospital service at upazilla, district and tertiary level are essential for complicated extra-pulmonary TB, severe form of pulmonary TB, MDR-TB and HIV/TB co-infection. So, hospital services at these various levels are crucial for increasing the treatment success rate and reducing the morbidity and mortality related to Tuberculosis which is closely linked to the objectives and components of Health Sub-sector Program of HNP.

## Collaboration with NGO partners

Almost 100% of the country's population now lives in areas where DOTS services are available. The extensive NGO network participating in TB control activities has contributed to a significantly increase in case detection and treatment success within a relatively short time period. The contributions of community health volunteers (shasthya shebikas), village doctors and other community members in the referral of TB suspects, as well as DOTS provision have been significant along with MOHFW staffs. In addition, NGOs have extended their activities to capacity building and operational research, social mobilization and communication, financia building and operational research, social mobilization and communication, financia management & health care financing. A number of operational research studies are being conducted by ICDDR'B, Damien Foundation and BRAC. These studies are

providing tremendous support to the NTP in policy formulation, planning, execution implementation and evaluation of TB control activities.

Supervision and monitoring activities were strengthened, with supervisory plans being prepared at the central level on a quarterly basis together with NGO partners. Supervisory teams at the district level are often joined by central level staff to supervise upazillas on a quarterly basis. Supervision could be improved further if transport facilities are provided to government staff from central to upazilla level.

### Public-private, public-public and private-private mix

The PPM approach for TB control is represented in various forms:

- Public with Private (e.g. NTP collaborating with NGOs and the private sector)
- Public with Public (e.g. NTP supporting TB services implemented in health facilities that resort under different ministries: military hospitals, prison health centers, collaborating with Defense, Public Health Services and Prison Services)
- Private with Private (e.g. NGOs working with private health practitioners).

The NTP including partners have implemented numerous small- and large-scale PPM initiatives over time. Promising results have been seen e.g.: are documented: DOTS with village doctors; DOTS with shasthya shebikas; DOTS in corporate sectors/work places e. g Export Processing Zone (EPZs; and the Public-Private Partnerships Project (PPPP).Public and private medical college hospitals have recently been incorporated into NTP. ACSM activities are conducted in these hospitals. However, More collaboration is needed in urban settings and with the corporate sector in order to have an impact on case detection and treatment success at the national level (eg: work places other than EPZ areas, private hospitals and clinics, private practitioners, drug sellers, private laboratories). Factors that have contributed to successful partnerships include: mutual understanding among partners; trust; commitment; respect for each other's opinions; strong ideas; and learning from national and international experiences.

## Current situation and its relevance of NTP to the HNP

### Relevance to the GOBs Poverty Reduction Strategic Paper (PRSP)

As 80% of the TB patients are economically productive age group (15-54 years) and bread winner of their family members, the resultant economic and social burden to their families and relatives are massive.

The National strategy for Economic Growth and Social Development Strategy, Poverty Reduction (Bangladesh PRSP) of the Government of Bangladesh considers in particular the human development dimensions of poverty, deprivation in health, education, and nutrition as well as related gender gaps and imbalance.

In consideration of the linkages between health and poverty, the MOHFW will, during HNPSP, progress further towards consistent adherence to pro-poor policies and strategies in sectoral planning, resources allocations and program implementation.

Considering the current situation in terms of TB and poverty, Poverty Reduction Strategic Paper (PRSP) of GoB is relevant to successful control of TB in Bangladesh.

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## Relevance of NTP to MILLENNIUM DEVELOPMENT GOAL

By re-invigorating program efforts directed at improved maternal health, reduced child mortality, reduced fertility and disease control, HNPSP is expected to contribute significantly to the achievement of health-related Millennium Development Goals.

National Tuberculosis Control Program is expected to contribute significantly to the achievement of the following health-related Millennium Development Goal. This includes:

(1) Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

## Issues to be addressed

- Contributing to health system strengthening in TB care;
- Quality of smear microscopy;
- Diagnosis of smear-negative and extra-pulmonary TB;
- Capacity for culture and drug-susceptibility testing;
- Management of MDR-TB cases;
- Engagement of all care providers;
- Adequate participation of the community;
- Linkages between TB and HIV program;
- Human resources development (HRD) plan for TB not linked to or coordinated with the national HRD plans for the entire health sector;
- Rigid funding and reporting deadlines set by GFATM;
- Ensuring quality TB control in hard-to-reach areas or in special settings including private hospitals and clinics, defense hospitals, prisons, work places, slums and among homeless people;
- Uninterrupted supply of quality anti-TB drugs;

## Process of Implementation

The Program Manager (TB) is responsible for the program at central level, under the guidance of the Director-General of Health Services; the Director, MBDC (who is also Line Director, TB/Leprosy control).The Program Manager (TB) is assisted by four Deputy Program Managers and five Medical Officers.

At the sub-national level, NTP is integrated into the general health services, under the Director (Health), the Civil Surgeon and the Upazila Health and Family Planning Officer (UH&FPO), responsible at divisional, district and upazilla level, respectively. Their responsibilities include coordination and supervision of the NTP services carried out by the designated staff.

At district level, the Civil Surgeon is assisted by a Medical Officer (TB and Leprosy) and/or a Program Organizer (TB and Leprosy). Forty-four CDCs, located in district towns and metropolitan cities, support NTP in two ways: they render diagnostic and treatment services for the immediate surroundings and serve as referral center for the entire district. They also serve as resource base for providing technical advice according to NTP guidelines. Consultants in CDCs are qualified chest specialists; their expertise is being utilized for further strengthening NTP activities, particularly for supervision and monitoring. Complicated cases in need for hospitalization are referred to chest diseases and other tertiary care hospitals. NGOs provide NTP services at upazilla level in collaboration with the government. Some of them have their own hospital infrastructure.

The UH&FPO oversees the NTP activities within the Upazila. One UHC-based medical officer is designated for disease control (DC), including TB. The Leprosy and TB Control Assistant (LTCA) assists the Medical Officer (DC) in running the program in the Upazila. NTP activities have been boosted enormously by the involvement of TB-specialized NGO partners in all upazillas and in some urban areas. Organizations like UPHCP and NSDP are also involved in TB control in urban areas through a Memorandum of Understanding (MoU) with DGHS.

At the grassroots level, health inspectors (HI), assistant health inspectors (AHI), health assistants (HA), medical assistants (MA), the family planning field workers, village doctors and NGO community health workers provide basic services such as identification and referral of TB suspects, provision of DOT, tracing of defaulters and executing various Advocacy, Communication and Social Mobilization (ACSM) activities.

### Monitoring and supervision mechanism

Monitoring is the routine tracking of the key elements of program/project performance and Evaluation is the episodic assessment of the change in targeted result related to the program intervention.

One of the critical steps in deigning and carrying out monitoring and evaluation of a TB program is the selection of appropriate indicators. In addition to the well articulated objectives that define quantity, quality and time, choice of indicators for monitoring and evaluation requires careful thought and consideration of conceptual and pragmatic matters. A balance of input, process, output and outcome indicators is necessary to explain success and gaps in program implementation.

The NTP management is overall responsible for monitoring and evaluation of the program. The TB reporting system is unified in line with the global reporting system and is adhered to by all partners involved. All relevant data for monitoring the TB epidemic and program performance are routinely reported, mostly quarterly and some indicators annually.

The reporting units submit quarterly reports to the UH&FPO at the Upazila level. These reports are checked for completeness and accuracy by local health authorities, from where the reports are forwarded to the district level and from there directly to NTP.

Computerized data management is in place and it has been initiated at district level, including training of statistical assistants in data entry and data management. The data are analyzed and reports are prepared quarterly and annually by NTP HQ. NTP disseminate these reports to MOHFW, NGOs, WHO, DP's and GFATM.

During quarterly monitoring meetings NTP gives feedback about the results of case detection and treatment and about any observed deficiencies with reporting. Performances are also evaluated, gaps are identified and decisions are taken for remedial actions in this meeting. Feedback is given to the staff of the DOTS implementing facilities and NTP central management through meeting minutes. The work plans for the next quarter are also presented and discussed.

Uniformly organized supervision activities are already undertaken in the rural as well as urban areas, where the structures of NTP and partner NGOs, is well established. Intensification of involvement of public basic health workers, private practitioners, village doctors and Shasthya Shebikas will need a close follow up, in order to institutionalize this approach. Supervision will be strengthened by conducting more joint supervisory visits and peer-review. The supervision check lists will be revised to reflect the new areas such as TB/HIV, PPM, and ACSM.

## Achievements (In quantitative and qualitative terms) future plan

| Sl. No. | Major Activities | Achievements | Future Plan (upto-2010) |
|---|---|---|---|
| 01. | TB case detection rate | 72.% | Sustain over 70% |
| 02. | TB treatment success rate | 92% | Sustain over 85% |
| 03. | Capacity building for health managers and field level staff (No.) | 24618 | 250000 |
| 04. | Management of drug resistant TB cases | DOTS-Plus committee is functioning. DOTS-Plus manual has been developed. | MDR Drugs are ready for 50 patients for 1st year. Total 700 pts for next five years. |
| 05. | Continuity of Advocacy, Communication and Social mobilization(ACSM) | Community involved with Public Private Partnership | Strengthening of ACSM activities |
| 06. | Linkages with the NASP - NGO with NTP to function TB-HIV co-infection | Collaboration meeting, workshop activities done | Involvement of other organization working with HIV/AIDS |
| 07. | Involvement of Govt. field staff, Private Medical Practitioner, cured TB patients, Sasto Sebika, Village Doctors and other Health Volunteers for providing DOTS | Case detection and success rate increased. | For achieving the MDG target. |
| 08. | PPM | Case detection and success rate increased. | For achieving the MDG target. |
| 09. | TB Control in Special situation (Work places, prison, Refugees. | Case detection and success rate increased. | For achieving the MDG target. |

## Performance of National Tuberculosis Control Program Period -July 2007 to June 2008

| Sl No. | Activity | Target | Achievement | Comment |
|---|---|---|---|---|
| 1 | Case Detection among suspects (SS) (No.) | 1,44,975 | 1,04,517 (72 %) | |
| 2 | ACSM | Material development, printing, airing and displaying of ten different items | All Material developed, printing order given, airing planned and display started | By the 2nd week of August 100% will be done. |
| 3 | Treatment success | >90% | 92% | 100% Achieved. |
| 4 | Training (Modular Management Training , data management, Field level worker, Factory Worker, Graduate and Non-graduate PP, Govt. doctors' training.) (No.) | 65,000 | 67408 (105%) | 17 different courses at different level |
| 5 | Training modules | Revision of management , Lab Technology , TB - HIV and MDR-TB | Finalized and under printing. | |
| 6 | Procurement Medicine and others Equipment | Medicines and other MSR items of Tk. 744.00 (Eleven crore forty lac) | Medicines and other MSR items of Tk. 3,32,33,000.00 (Three crore thirty two lac thirty three thousand) have been procured | 87% achieved Rests of the things are under process. |
| 7 | Digital X-ray Photocopier machine | 4 digital X-ray 44 Photocopier machine | 4 digital X-ray 44Photocopier machine procured | 92% 100% 100% |
| 8 | Computer | 125 computers | 125 computers procured and distributed in 64 districts. | 100% |
| 9 | TB related report and publication | Annual Report of 2007 and 2008, Quarterly Report (4 Quarter) to be published | Annual Report of 2007 Quarterly Report 1st, 2nd and 3rd of 2008 | 70% completed |
| 10 | Research and Survey | 15 Operational Research | 15 Operational Research is underway | 70% progressed |
| 11 | Supervision and Monitoring | 703 DOT Centre Monitoring meetings 64 Quarterly meeting | National, Divisional, District and Urban teams did monitor 630 DOT Centers 5 divisional annual meetings completed. 64 Quarterly meeting completed | 90% DOT Centre 95% 100% |
| 12 | National Strategic Plan | Development and Printing | Developed, Printed and Disseminated | 100% completed |
| 13 | External Quality Assurance center | Establishment | 33 Established | |

## PROGRESS IN TB CONTROL TOWARDS ACHIEVING THE MDG

Since introduction of DOTS in Bangladesh, remarkable progress in TB control has been made in terms of DOTS coverage, detection of TB cases and treatment success, especially among new smear-positive cases. In order to consolidate the gains made and achieve the TB targets set under the Millennium Development Goals, Bangladesh is in the process of expanding the scope of services in line with the new stop TB strategy.

### DOTS Coverage

Bangladesh adopted the internationally recommended DOTS strategy and field implementation was piloted in November 1993 in four upazilas. An expansion plan was designed and coverage of all upazilas was achieved by June 1998. Expansion to include also the metropolitan cities took place subsequently and at present the coverage is 100% (Figure 1).

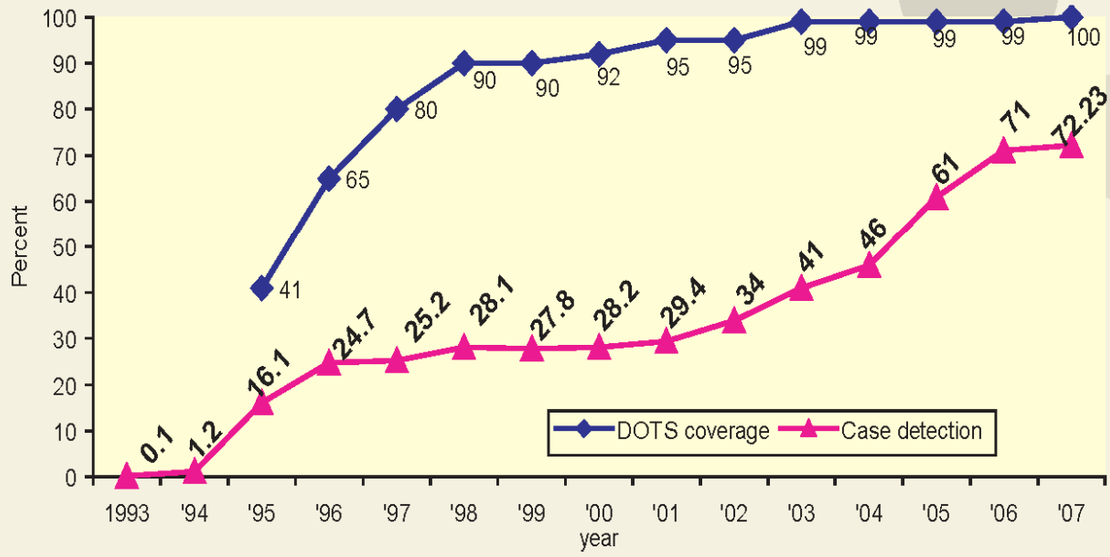
### Case Detection

After the introduction of the DOTS strategy in 1993, the case-detection rate for new smear-positive cases increased gradually and reached 28% in 1998. Until 2001 only marginal progress was achieved in terms of further increasing the case-detection rate. This may possibly be explained by the health sector reforms with virtually disappearance of TB as a separate national program as well as uncertainties in funding. From 2001 onwards, case detection accelerated to reach 46% in 2004 and further increased to 61% in 2005 and 71% in 2006, thereby reaching the global target. At the end of December 2007 the case detection was further increased to over 72% (Figure 1). This phenomenal increase in case detection would not be possible without strong commitment from all stakeholders, consistent funding and a strengthened and expanded collaboration between governmental and nongovernmental allied organizations.

**Progress in DOTS implementation and case detection under DOTS**

| Reporting unit | Pulmonary positive | | | | New Pulmonary negative | | New extra pulmonary | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | New | | Relapse | | | | | | | |
| | # | % | # | % | # | % | # | % | # | % |
| Upazila | 91606 | 75.8 | 2517 | 2.1 | 15852 | 13.1 | 10861 | 9.0 | 120836 | 82.0 |
| Metropolitan city | 10253 | 49.2 | 1049 | 5.0 | 5366 | 25.8 | 4152 | 19.9 | 20820 | 14.1 |
| CDC | 2437 | 42.9 | 222 | 3.9 | 1934 | 34.0 | 1093 | 19.4 | 5686 | 3.9 |
| Total | 104296 | 70.8 | 3788 | 2.6 | 23152 | 15.7 | 16106 | 10.9 | 147342 | 100% |

**Fig. 1: Progress of Dots Coverage and case detection (%)**

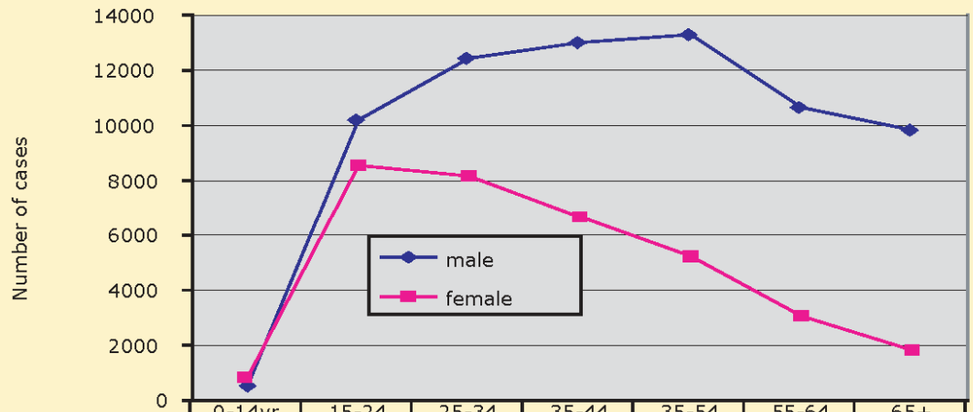



N.B. Case detection over the total new smear positive cases expected in country in 2007.

A total of 147, 342 cases (103 per 100000 population) have been reported to NTP. Of them, 82% were reported through the upazilas. Nearly 71% of the cases were new smear-positive (Table 1).

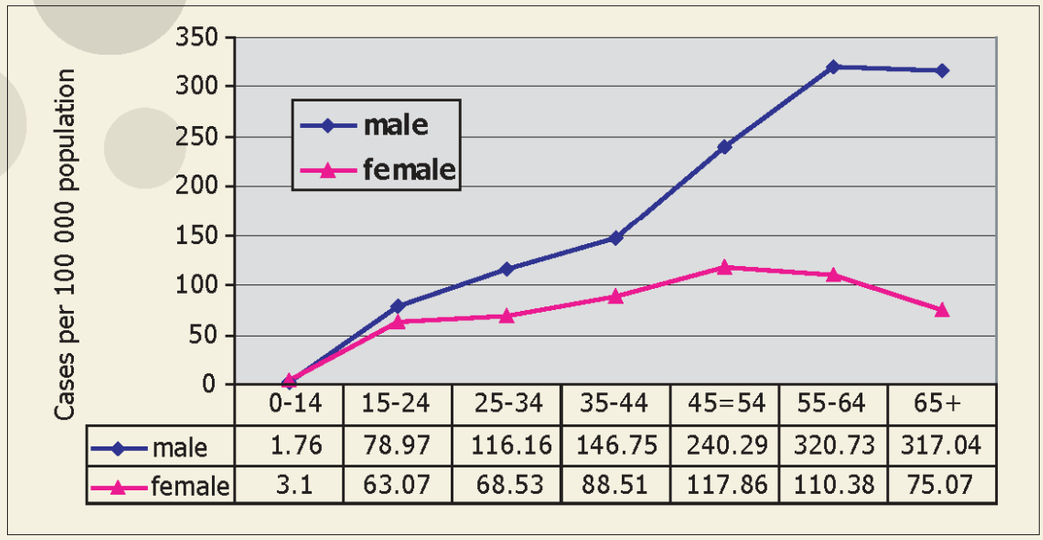
About 33% of the total (104296) reported new smear positive cases were female. The male: female ratio was 2.04:1. The number of male cases was higher in all age groups except in children (less than 15 years old), where girls outweighed boys. Almost three quarters of the reported cases were between 15 and 54 years old (Figure 2). The notification rates increased with age for both sexes and appear to be lower again in people above 65 years in case of male while above 55 in case of female (Figure 3).

**Fig. 2: Notification of new smear-positive pulmonary TB by age and sex, 2007**




| | 0-14yr | 15-24 | 25-34 | 35-44 | 35-54 | 55-64 | 65+ |
|---|---|---|---|---|---|---|---|
| male | 523 | 10210 | 12442 | 13003 | 13296 | 10653 | 9830 |
| female | 829 | 8562 | 8164 | 6678 | 5219 | 3057 | 1818 |

**Fig. 3: Notification rate for new smear-positive pulmonary TB by age and sex, 2007**




| | 0-14 | 15-24 | 25-34 | 35-44 | 45=54 | 55-64 | 65+ |
|---|---|---|---|---|---|---|---|
| male | 1.76 | 78.97 | 116.16 | 146.75 | 240.29 | 320.73 | 317.04 |
| female | 3.1 | 63.07 | 68.53 | 88.51 | 117.86 | 110.38 | 75.07 |

## Treatment Outcomes

Treatment success rates under DOTS have been consistently high from the beginning and crossed the global target of 85% since 2003. After strengthening DOTS and ACSM activities the unfavorable outcomes have been remarkably reduced. As a result, this treatment success rate has improved further to reach 89% for the cases registered in 2004, and 91.5% for the cases registered in 2005 (Figure 4). The NTP has successfully treated 93 766 (92.14%) of the 101 761 new smear-positive cases registered in 2006. The default rate was reduced to 1.96% while 3.24% of the patients have died during treatment (Figure 5).

**Fig. 4: Trends in treatment success rates, 1993-2006 cohorts**

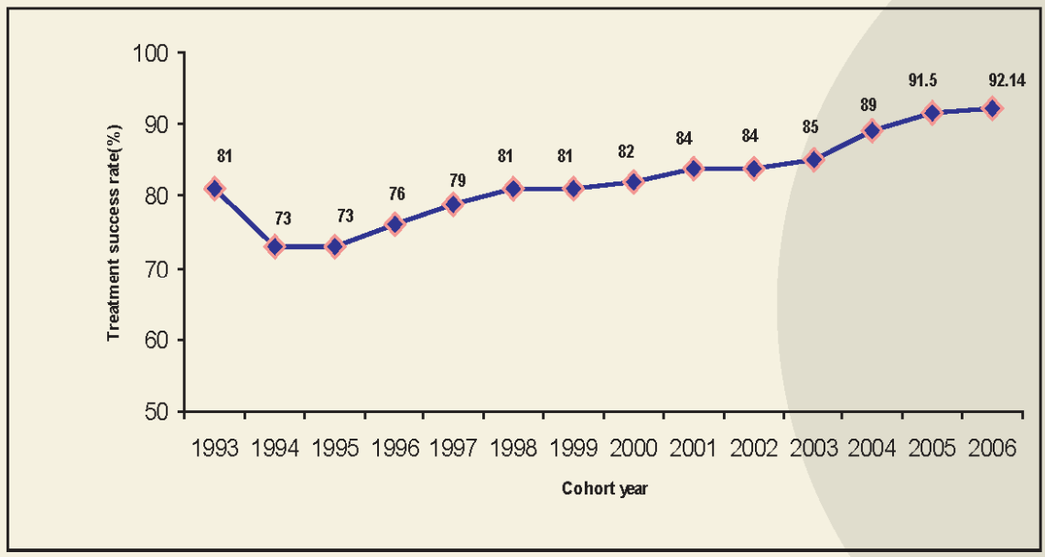
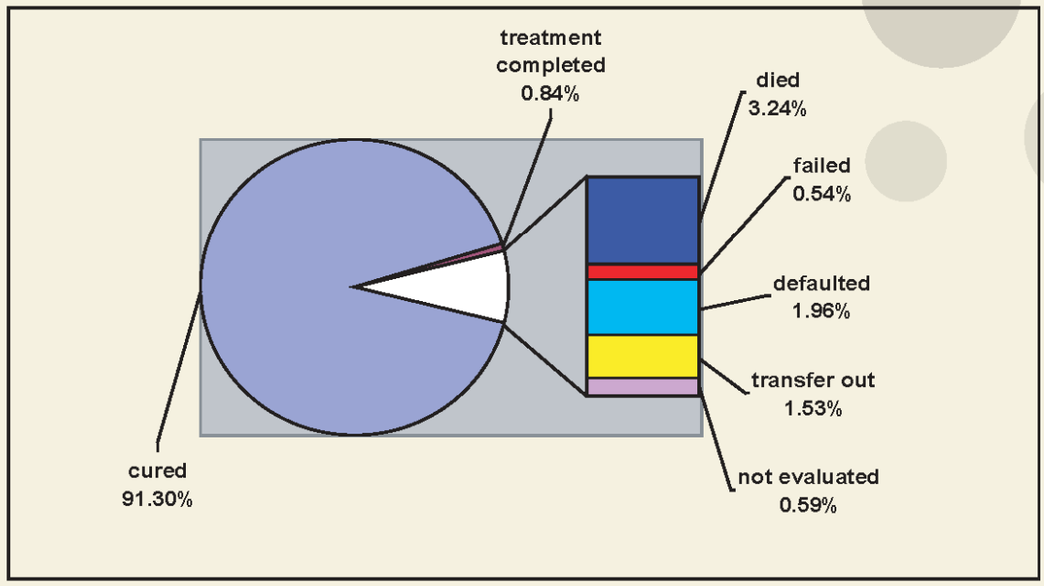


**Fig. 5: Treatment outcomes of new smear-positive cases registered in 2006**




In 2006, a total of 4211 relapse, 24481 smear-negative and 14361 extra-pulmonary TB cases were registered. The treatment success rate of relapse cases was 77.5%, and treatment completion rates of smear negative and extra - pulmonary cases were 85% and 88%, respectively. During the course of treatment191 (4.5%) relapse, 943 (3.85%) of smear negative and 372 (2.59%) extra-pulmonary cases had died; over all death rate was 3.5%.

## National Leprosy Elimination Program (NLEP)

### Background Information

During 1991-at the time of adaptation of WHO resolution, Bangladesh was estimated to have 1, 36,000 leprosy cases, giving a prevalence of 13.6/10,000 population. Country wide expansion of MDT including all UHCs, integration of leprosy services into the general health services, establishing model partnerships with NGOs, effective collaboration with some key groups like Village Doctors, Religious Leaders Bangladesh Scouts and implementation of some focused activities like SAPEL, LEC etc. has resulted in remarkable reduction of registered prevalence. At the end of December 1998, the registered prevalence came down for the first time to less than one case per 10,000 population nationally (0.87/10,000 population). The registered prevalence is gradually declining in each year and has reached at 0.31/10,000 population of the end of 2007. But still there are 4 districts and 1 metro where prevalence is more than 1/10,000 population. These are Dhaka metropolitan city, Nilphamari, Gaibandha, Khagrachari, and Bandarban districts.

Another important indicator for leprosy elimination which has not been achieved in National Leprosy Elimination Program (NLEP) of Bangladesh is grade 2 deformity rate among newly detected cases is about 10.38% at the end of 2007 and it should be reduced to less than 5 %.

Now NLEP is consolidating it's afford to achieve sub-national (district level) elimination and to sustain elimination status with further reduction of prevalence at national level and to

achieve grade 2 deformity among new cases to less than 5%.

HNP has accorded due emphasis on improving the health of the poor. Leprosy is a poverty related disease and if leprosy remained untreated many of the patients will be afflicted by some sorts of deformity, disability and even destitution. It is well known that improvement in health would translate into higher incomes, higher economic growth and accelerated declines of poverty. Improvements of leprosy services will thus accelerate economic growth.

The National policy of Bangladesh is to create conditions whereby the people have the opportunity to reach and maintain the highest attainable level of health.

The National strategy for Economic Growth and Social Development is to reduce poverty by Human Development.

The main objectives of National Leprosy Elimination program is to detect leprosy cases and ensure whole course of treatment. As a result, the leprosy patients will be cured and will get rid of development of physical deformity or disability and thus economic destitution. On the other hand, treatment of cases will cut the chain of transmission and will thus ensure healthy environment for other people. Thus the NLEP is in conformity with National policy and strategies of i.PRSP/MDGs.

## Program Objective

By year-end 2006, only six districts and two metropolitan areas (Dhaka and Chittagong) had a Leprosy prevalence of more than one case per 10,000 with prevalence being highest in Dhaka (3.9 cases per 10,000). The main objective for Leprosy control during HNPSP is, therefore, to achieve by mid-2007 Leprosy elimination in all six districts, while reducing Leprosy prevalence at national level to 0.35 cases per 10,000.

## Strategies

The central of the Leprosy Elimination strategy is to take the WHO-recommended MDT accessible to all patients, including those living in difficult to reach areas and populations. Leprosy control involves:

- Proper case detection, referral for diagnoses and registration of diagnosed cases;
- Treatment for all registered cases according to national guideline, while ensuring regularly and completion of treatment;
- Management of the complications of Leprosy, including disability prevention and management;
- Enlisting community support for the program; and
- Strengthening of MIS monitoring and reporting.

## Collaboration with NGOs and the Private Sector

Leprosy elimination in Bangladesh is being pursued in close collaboration with NGOs, civil society and the private sector. Leprosy control is implemented through NGOs in 23 districts covering 272 Upazilas, as well as in three metropolitan areas. Partnerships for awareness creation, referral of suspects and case finding and case holding have also been formed with Bangladesh Scouts, general medical practitioners, and religious leaders. Drugs for MDT treatments are being donated free of charge by Novartis.

## Priority Activities of the OP

1. To build capacity among service providers at all levels.
2. To build and sustain liaison with academic institutions, private practitioners, dermatologists
3. Strengthening of Leprosy activities in difficult to reach areas.
4. To conduct different ACSM activities.

# Health Education and Promotion

## Introduction

Health Education and Promotion is to change health behavior of the individuals which will enable them to take right decisions at the right time in a more dynamic and interactive way in order to address the determinants of health. Moreover, these interventions will enable them to promote social values (conducive to health) that will reduce the magnitude of health hazards and increase utilization rate of health services.

## Goal

To achieve sustainable improvement in health, nutrition and reproductive health, including Family Planning, status of the people, particularly of vulnerable groups including women, children, the elderly and the poor with the ultimate aim of their economic emancipation and physical, social, mental and spiritual well being and thus contribute to the poverty reduction strategy.

## Objective

To improve awareness level of health of the people through improvement of their knowledge and attitude and develop health practice among them in order to attain optimum level of health towards productive life and alleviation of poverty.

## Activities

i Change in individual health behavior.

ii. Social ownership: proper utilization of health care facilities/services.

iii. Primary Health Care (PHC) promotion.

iv. Sustainable social mobilization approach.

v. Advocacy.

vi. Support to emerging health problems.

vii. Inter and intra sectoral collaboration

viii. Community participation, involvement of professional groups and local leaders.

ix. Stake holders participation

x. Effective use of available media and approaches including local technology.

Major strategic areas of Health Education and Promotion are furnished below through which the aforesaid issues are planned to be addressed under HNPSP:

i. School Health Education.

ii. Hospital Health Education.

iii. Occupational/ Industrial Health Education.

ivEnvironmental Health Education.

v. Community Health Education for selective/vulnerable groups

## Activities

### Component wise Activities of the Health Education & Promotion OP

| Major Components | Priority activities | Other activities |
|---|---|---|
| Capacity Building and Logistic Support of BHE | -Recurrent & other Operating cost<br>-Training (Local & Foreign)<br>-Repair and Maintenance<br>-Capital (Procurement) | Incorporated in the OP |
| Health Education Strategy Development | -Development of a national Health Education and Promotion Strategy | Incorporated in the OP |
| Awareness, Sensitization and Motivation | -Health Education Campaign based on priority heath problems(countrywide)<br>-Seminar/conference | Incorporated in the OP |
| Media Campaign & Transmission for Health Education and Promotion | - T.V Program : Serial/ discussion/ debate/ spot annou ncement and other mass communi cation activities on diff. health promotion issues (both for comm. & non - communicable diseases)<br>-HE P Program Production and dissemination through Radio & T.V. | Incorporated in the OP |
| Production, Distribution and Display of IEC Materials | -Production of film on diff. HEP issues<br>-Production & distribution of HEP IEC Materials | Incorporated in the OP |
| Stre ngthening Intersectoral and Multisectoral Coordination and Advocacy | -Monthly Intersectoral & Multisectoral Coordination Meeting (HEP)<br>-Quarterly Stakeholder Meeting (HEP) | Incorporated in the OP |
| Technical Assistance | -Technical support to the strategic dev. of media communication<br>-Technical support to the strategic dev. of IPC & evaluation of HEP | Incorporated in the OP |
| Survey, Monitoring & Evaluation of HEP | -Formative Research (HEP)<br>-Survey (HEP) | Incorporated in the OP |

**Achievement:**

**Target and achievement of the main component of the project:**

| Sl. No. | Work Components as per PP (with quarterly) | Estimated cost (2003-2010) | Achievement up to last June'07 (2003-2007) | | Target of the current year (2007-2008) | | Progress up to the month of June' 08 of the current year. | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | | Financial | Physical (Percent of the component) | Financial | Physical (% of the component) | Financial | Physical (% of the component) | |
| 1. | Capacity building and logistic suppo it of BHE | 5032.81 (3994.31:GOB) (1013.50 RPA GOB) (25.00: DPA) | 2018.56 (GOB:1801.87 (WHO: 26.95) (UNICEF: 17.00) (RPA-GOB: 172.74) | -Developed HE Model Vill. in 128 dist.& Provided Tech. Suppot -Conducted Training (HEP): 1) F. Training =5 2) L.Trg. (TOT/EOC/ARH)=14 -Procured 1) Equip/Computer& accessories=2567 2) Furniture= 85 3) Motor Cycle=20 | 1269.00 (GOB: 992.00) (RPA-GOB: 268.00) | * Training L-24, F-2 * Procurement: -Vehide: - Cinema Van-22 - Motor Cycle - 92 - Audio Visual Equip.-0 -Computer-80 -Off.Equip.-70 -Furniture-140 *HEP Model Village-128 | 1063.03 (986.88:GOB) (16.15: RPA) | - Procured 20 Motorcycles. - Procured 506 A.V. Equipment & distr. to 292 UHC - HEP Model Village activities in 128 Upazila going on. -Telecasted 887 T.V Spots on diff. HP issues. - News paper advertisement (HEP)-900 | |
| 2. | Health Education strategy development | 25.00 (RPA:GOB) | 24.97 (RPA) | HEP Strategy-1 | 0.00 | - | 0.00 | Task Completed. | |

| Sl. No | Work Components as per PP (with quarterly) | Estimated cost (2007-2010) | Achievement up to 1st June'07 (2003-2007) | | Target of the current year (2007-2008) | | Progress up to the month of June' 08 of the current year. | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | | Financial | Physical (Percent of the component) | Financial | Physical (% of the component) | Financial | Physical (% of the component) | |
| 3 | Awareness, sensitization and motivation | 1353.37 (1100.90 RPA-GOB) (462.47 DPA) | 159.92 (WHO: 68.67) (DPA-JUNICE F:91.05) | -Inter-country Workshop held= 3<br>-Conducted HE Sessions, EDC meeting, Orientation for H & FP worker- 664 | 250.00 (RPA-GOB: 200.00) (DPA:50.00) | -HE Session-100<br>-Country wide Cluster Gr.Edn./ IPC in support of HP: -1 | 248.73 (198.73: RPA) (50.00: DPA) | Completed:<br>i) Procurment of service (Sensitization workshop for the journalist & stakeholder).<br>ii) Procurement of service (Country wide cluster group education on HEP).<br>iii) Procurement of service (School/hospital/occupational/ environmental/ community health education).<br>iv) EDC Communication | |

| Sl. No. | Work Components as per PP (with quarterly) | Estimated cost (2003-2010) | Achievement up to last June'07 (2003-2007) | | Target of the current year (2007-2008) | | Progress up to the month of June' 08 of the current year. | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | | Financial | Physical (Percent of the component) | Financial | Physical (% of the component) | Financial | Physical (% of the component) | |
| 4. | Media campaign and transmission of health education and promotion | 892.53 (20.00- GOB) (800.00: RPA-GOB) (72.53:DPA) | 304.08 (GOB: 40.00) DPA/WHO: 22.05) (DPA/SCF-USA: 6.50) (DPA/ UNICEF: 112.50) 123.02 (RPA) | *Observed National & Inter National Day,'04,'05,'06,&'07, *Arranged rallies : anti-smoking & others-180 *Arranged H.E. Sessions /H.E Consultative Meetings-13 *H.E Model Village Activities launched in 64 Dists. (activities include: 256 F.Song, 256 Vidio Shows, 384 H. Rallies, 1088 U.Balthack &704 - Film Shows) Mass Media activities _ 5070 *TV spots *Advertise in News Papers *H.Fair, *256-Spot announcement *448-Gr. meeting, *128-Debet *64-H.Exhibition (Excluding UNICEF & SCF) | 434.00 (RPA:GOB) | *Mass Media activities - 1200. *CWC-1 (Prevention of CD&NCD) *Social Mobi. Camp.-1 *HEP film-3 | 299.82 (RPA) | Completed: -i) Procurement of service (Country wide campaign on prev. & control of comm. & NCD & Nutrition). ii) Procurement of service (Production of 16 mm film). -ii) Procurement of service (Production, distribution & display of IEC materials) -v)TV Spot on CDC,NCD, Nutrition & MCH | |

| Sl. No. | Work Components as per PP (with quantity) | Estimated cost (2003-2010) | Achievement up to last June'07 (2003-2007) | | Target of the current year (2007-2008) | | Progress up to the month of June' 08 of the current year. | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | | Financial | Physical (Percent of the component) | Financial | Physical (% of the component) | Financial | Physical (% of the component) | |
| 5 | Production, distribution and display of IEC materials | 881.55 (30.00 - GOB) (800.05/RPA -GOB) (51.50/DPM) | 2435 (GOB800.00 DPA -UNICEF 66.85) (DPHNSCF - USA: 13.00) (WHO:5.00) 66.85:(RPA) | Produced IEC (HEP) Materials:35/GOB) Procurement HEP film - 3 | 140.00 (RPA:GOB) | Production of IEC Printed Material (HEP) - 200000 Pacage Service - 1 (Display of IEC Materials) | 138.89 (RPA) | Completed : - i) Procurement of raw materials for the printing press. ii) - Procurement of service (Electronic and billboard comm. on & HCD) under process. | |

| Sl. No. | Work Components as per PP (with quarterly) | Estimated cost (2003-2010) | Achievement up to last June'07 (2003-2007) | | Target of the current year (2007-2008) | | Progress up to the month of June' 08 of the current year. | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | | Financial | Physical (Percent of the component) | Financial | Physical (% of the component) | Financial | Physical (% of the component) | |
| 6. | Strengthening intersectional and multi - sectoral coordination and advocacy | | 25.50 (DPA: UNICEF: 15.50) (10.00:RPA) | -Activities carried out by UNICEF with their own mechanism -Co-Ordination meeting held - 89 | 15.00 (RPA:GOB) | Coord. meeting at diff.level -300 | 0.00 | - | |
| 7. | Technical assistance | 100.00 (RPA -GOB) | 24.24 (RPA) | Behavioral Research - 1 | 0.00 (RPA:GOB) | Utility Research on HEP Printed Materials -1 | 0.00 | - | |
| 8. | Survey, monitoring and evaluation of HEP | 348.55 (343..55 RPA GOB) (5.00:DPA) | 42.48 5.00 (DPA: UNICEF) 37.48: (RPA) | Mid Term Evaluation -1 Audence Survey -1 | 61.00 (RPA:GOB) | HEP Cluster Survey -1, HEP Research -2 (Attitude of service providers and Recipient /clients health seeking behavior) | 60.77 (RPA) | - Procurement of service (HEP need assessment) completed. | |
| | Total : (HEP) | 9069.81 | 2943.30 | | 2160.00 | - | 1760.07 | | |

**Moreover some special Health Education intervention undertaken and implemented as follows:**

1. Health Education team traveled by boat, visited different riverian areas of Bangladesh. Disseminated Health Messages on prevention and control of communicable and Non-communicable Diseases, maternal and child health care, nutrition and smoking by boat across in different riverian areas of Bangladesh followed by magic show.
2. Mass health education campaign (folk songs) conducted by BHE, DGHS in SIDOR affected area in order to prevent emerging health hazards and promote environmental health just after disaster.
3. Distributed T.V, DVD, & PA set to 250 UHC in order to disseminate health messages and conduct hospital health education session more effectively.
4. Distributed 506 A.V equipments to all Civil Surgeon offices in order to strengthen health education efforts in the District.
5. Health Education model village activities are being implemented on 128 Upazilla in 64 Districts.

**Future Plan of Health Education & Promotion (July'08 - June'09)**

- Extension of HEP model village in 64 Districts.
- Production of HEP Film on Road Safety /Injury Prevention/Other HEP Intervention
- Production of HEP printed materials-200000 (need based).
- Radio & T.V Programs: Serials/ discussion/ debate/ spot announcement. (On communicable and Non-communicable Diseases/ Environmental health/ Nutrition/ prevention of emerging health problems).
- Promote a) School Health Education, b) Hospital Health Education, c) Occupational / Industrial Health Education, d) Environmental Health Education, e) Community Health Education for selective/ vulnerable groups in 64 Districts.
- Conduct HEP Cluster Group Education
- Conduct Intersectoral and Multisectoral Coordination meeting (HEP) at different. level
- Conduct HEP cluster survey
- Conduct Health Education Session on Gender Equity, Violence Against Women, Accident prevention Environmental Protection and Control of Drug Abuse, Adolescent Reproductive Health, Maternal and Child Health Care, Emergency preparedness / Disaster Management in 64 Districts
- Projection & Erection of HEP Bill-Board near High Way/ Cities/Municipal areas
- Use of Folk Media at different level (for the promotion of Health)
- Strengthening of IPC for the Promotion of Health

# Improved Hospital Services Management

## Introduction and Background

The development of human capital has strong poverty reducing effect in Bangladesh. Health is the major element of human development. Hospital services are the most visible and major component of the health care delivery system and mainly focused at primary secondary and tertiary level. The strategy of comprehensive approach for the poverty reduction already visualizes some target to be achieved by the year 2015 in respect of health and nutrition. Better hospital services can effectively contribute for the achievement of this target.

Service delivery is the ultimate outcome of the health sector activities. Hospital services are the most visible and major components of the health sector delivery system. Appropriately equipped hospitals at all level will provide efficiently the expected services with quality of care and equity of access. Line Director Improved Hospital Services Management is looking after the development activities of the secondary and tertiary level hospital. To improve the hospital services it is needed to address some important issues like proper allocation of resources, more delegation of administrative and financial powers to local authority, timely maintenance of hospital buildings and equipments use of user fees, decentralized procurement, improvement of the accessibility of women, children and poor. With all these concepts the OP- Improved Hospital Services Management was designed

## Aims and objectives

- To ensure the accessibility of hospital services to women, children and especially to the poor;
- To reduce the maternal mortality by strengthening the existing EOC services;
- To introduce structured hospital referral linkage for the improvement of patient care;
- To strengthen and upgrade secondary and tertiary level hospital services for improvement of patient care;
- To equip secondary and tertiary level hospital services for provision of the expected range of services with quality of care;
- To improve the quality of care for the private sector and NGO hospitals/ clinics/laboratories through monitoring/ supervision and also strengthen the regulatory framework;
- To introduce standard waste management (phase wise) for the reduction of the diseases amongst the service providers and community people and also to improve the hospital environment;
- To provide access for the poor to specialized clinical services, i.e. reconstructive surgery;
- To improve hospital based eye care by GO and NGO collaboration;
- To strengthen the capacity of some selected institutions and hospitals both in the public and private sector;

## Strategies

A. Ensure better hospital services to reduce morbidity and mortality by:

- Upgrading and modernization of hospitals;
- Development of different systems in hospitals;
- Allocation of resources in the different hospitals for better services;

- Introduction and continuation of some important activities like EOC, Women and baby friendly hospital and Strengthening of MCH at secondary and tertiary level hospitals for the improvement of maternal and child care.

B. Ensure quality of patient care by:

- Improving accessibility of poor women and children;
- Improving standard of hospital waste management;
- Ensuring proper referral system;
- Introduction of the concept of clinical governance and other QA activities.

C. Ensure strong regulatory mechanism for the private sector hospitals/clinics and pathological labs:

- Proper application of year 1982 clinic ordinance;
- Decentralization of supervision and monitoring for the private clinics hospitals and pathological laboratories;
- Proper capacity development.

### Component Activities

1. Continuation of the public sector hospital services
2. Capacity development of Line Director-Improved Hospital Services Management
3. Introduction of standard waste management
4. Action plan for hospital based EOC and gender sensitivity
5. Strengthening of Baby and Women friendly hospitals
6. Piloting and rollout of hospital Referral system
7. Hospital Accreditation and medical audit
8. Strengthening of National Electro Medical Workshop (NEMEW)
9. Specialized clinical services (Reconstructive surgery) DMCH - Burn unit
10. Specialized clinical services (Reconstructive surgery) NITOR
11. Strengthening of existing artificial limb replacement workshop at NITOR
12. Strengthening of National Center for Rheumatic Fever & Heart diseases
13. Construction of Diabetic Hospital at Barisal & Rajshahi
14. Strengthening of TEMO
15. Hospital Based Eye care-SSI
16. Hospital Improvement Initiative (HII)
17. Strengthening of the Postmortem services at Secondary and Tertiary level hospitals
18. Establishment of Medical Gas Pipe lines & Suction units at secondary and tertiary level hospitals
19. WHO-BAN program
20. Strengthening of BSMMU
21. Support to National Heart Foundation
22. Support to Ahsania Mission Cancer Hospital
23. Strengthening of MCH at secondary and tertiary level hospitals

*Training Program on MWM at Dhaka Medical College Hospital*

*Presentation in the technical session in Waste Management Program in BRAC Inn*

*Focus group discussion session during baseline assessment of Women Friendly Hospital at Cox's Bazar District Hospital*

*Focus Group discussion session during baseline assessment of Women Friendly Hospital at Manikgonj District Hospital*

| Activities | Objectives of the Program | Major Sub-activities | Achievements | Future Activities |
|---|---|---|---|---|
| stination of Public for Hospital Services | To equip secondary and tertiary level hospital for provision of the expected range of services with quality of care. | • Pay and allowance of the offices and staff of upgraded hospital DH, MCH and specialized hospitals provided recurrent cost, budget for repair & maintenance.<br>• DH, MCH and specialized hospitals provided budget for acquisition of assets. | • Pay & Allowances for officers & staffs under development budget were given to 05-DH and 02-Specialized Hospitals<br>• DH, MCH & Spcl. Hospitals were provided budget for recurrent cost, repair & maintenance;<br>• 24-DH, 04-MCH and 6-Specialized Hospitals were provided support for procurement of equipment, furniture & MSR. | • Providing pay and allowance for officers and staff<br>• Providing recurrent cost for hospitals<br>• Providing repair and maintenance cost<br>• Providing procurement cost for the hospital |
| oduction of standard te management | To introduce Standard waste management (Phase wise) for the reduction of the diseases amongst the service providers and community people and also to improve the hospital environment | • Capacity development of the service providers.<br>• Supply of Logistics.<br>• Hands on training.<br>• Establishment of in-house segregation and management as per color code. | • 2-MCH, 13-DH & 2-Specialised Hospital brought under MWM program.<br>• National committee and other coordination committee for City Corporation, Municipalities, and Upazila already form for facilitating coordination<br>• The Final Draft ed rules on MWM are under process for approval.<br>• 6050 health personnel were trained in MWM | • Sensitization of personnel of selected DH for introduction of standard waste management<br>• Orientation on operational guideline<br>• Facility development<br>• Supply of consumable logistics<br>• Supply of IEC material<br>• Monitoring activities by participatory method |
| pital based EOC & nder sensitivity | To reduce the maternal mortality by strengthening existing EOC activity. | • Development of EOC mitno plan.<br>• Review of HAP<br>• Supply of logistics for Strengthening EOC services at DH & MCH<br>• Monitoring of EOC Activities | • 20-DH develop micro-plan<br>• 10-DH reviewed their HAP<br>• 8-DH were provided extra budget for MCH services<br>• 10-DH monitored for EOC activities<br>• Orientation Workshop on Gender at 4-DH. | • Strengthening EOC services at DH and MCH<br>• Orientation on gender sensitivity of service providers |

| Activities | Objectives of the Program | Major Sub-activities | Achievements | Future Activities |
|---|---|---|---|---|
| Strengthening of Baby and Women friendly hospital | Creating proper environment in the selected DH as women friendly hospital. | • Selection and assessment of hospital to introduce as women friendly hospital<br>• Orientation of the service provider and community<br>• Refreshers orientation of baby friendly hospital for the service provider<br>• Monitoring of the activities of baby friendly hospital<br>• Supply of medicine for strengthening of the WFH activities at DH<br>• Supply of instrument & equipment for strengthening of the WFH activities at DH<br>• Capacity development of service providers on management of violence | • 4-DH and 3-UHC identified for WFH implementation<br>• After development of LLP they are implementing WFH activities.<br>• Capacity already developed for the service providers on WFH, VAW.<br>• National accreditation committee already approved by MCH&PW.<br>• Breast Feeding refresher workshop held at 6-DH.<br>• Training of assessors done on accreditation process | • Monitoring of the activities by participatory method<br>• Supply of medicine for strengthening of WFH activities<br>• Supply of instruments and equipments for WFH<br>• Capacity development of hospital service providers in management of VAW |
| Piloting and rollout of Hospital referral system | To introduce hospital referral linkage for the improvement of the patient care. | • Opinion seeking workshop for finalization of referral procedure;<br>• Finalization of the document and printing through working group;<br>• Printing of the form and register for referral piloting;<br>• Orientation of the service provider for piloting of the referral system;<br>• Review of the activities of Referral procedure through workshop; | • Opinion seeking workshop completed.<br>• Document finalized by working group<br>• Form & registered are printed and distributed to the piloting area<br>• Orientation for the service provider for piloting completed and piloting started in two MCH & two DH and respective UHC of the two districts<br>• Review & monitoring activities are | • Printing of the form and register for referral piloting<br>• Orientation of the service providers for pilotting of the referral system<br>• Monitoring of the activities<br>• Situation analysis of the referral |

| Activities | Objectives of the Program | Major Sub-activities | Achievements | Future Activities |
|---|---|---|---|---|
| Strengthening of Baby and Women friendly hospital | Creating proper environment in the selected DH as women friendly hospital. | • Selection and assessment of hospital to introduce as women friendly hospital<br>• Orientation of the service provider and community<br>• Refreshers orientation of baby friendly hospital for the service provider<br>• Monitoring of the activities of baby friendly hospital<br>• Supply of medicine for strengthening of the WFH activities at DH<br>• Supply of Instrument & equipment for strengthening of the WFH activities at DH<br>• Capacity development of service providers on management of violence | • 4-DH and 3-UHC identified for WFH implementation<br>• After development of LUP they are implementing WFH activities.<br>• Capacity already developed for the service providers on WFH, VAW.<br>• National accreditation committee already approved by MOHFW.<br>• Breast Feeding refresher workshop held at 8-DH.<br>• Training of assessors done on accreditation process | • Monitoring of the activities by participatory method<br>• Supply of medicine for strengthening of WFH activities<br>• Supply of Instruments and equipments for WFH<br>• Capacity development of hospital service providers in management of VAW |
| Piloting and rollout of Hospital referral system | To introduce hospital referral linkage for the improvement of the patient care. | • Opinion seeking workshop for finalization of referral procedure;<br>• Finalization of the document and printing through working group;<br>• Printing of the form and register for referral piloting;<br>• Orientation of the service provider for piloting of the referral system;<br>• Review of the activities of Referral procedure through workshop; | • Opinion seeking workshop compiled.<br>• Document finalized by working group<br>• Form & registered are printed and distributed to the piloting area<br>• Orientation for the service provider for piloting completed and piloting started in two MCH & two DH and respective UHC of the two districts<br>• Review & monitoring activities are | • Printing of the form and register for referral piloting<br>• Orientation of the service providers for piloting of the referral system<br>• Monitoring of the activities<br>• Situation analysis of the referral |

| Activities | Objectives of the Program | Major Sub-activities | Achievements | Future Activities |
|---|---|---|---|---|
| | | • Situation analysis of the Referral procedure to district hospitals / Survey. | going on.<br>• All the activities under piloting is going on for the establishment of structured referral system linked to ESP.<br>• | |
| National Electro Medical Workshop (NEMEW) | To develop the capacity of NEMEW for facilitating repair and maintenance of Hospital electro-medical equipment | • Conduction workshop for capacity development.<br>• Procurement of spare parts and Raw material;<br>• Operational cost<br>• Repair and maintenance of hospital equipments and offices<br>• Procurement of Logistics | • The effected budget in the OP for NEMEW provided and they have done the mentioned activities. | • Procurement of spare parts and raw materials<br>• Repair and maintenance of hospital equipments and offices |
| Hospital Accreditation and Medical audit | To improve the quality of care for the private sector and NGOs hospitals / Clinics / Laboratories through monitoring / supervision and also strengthen the regulatory framework. | • Opinion seeking workshop for updating clinic and lab registration process<br>• Conduction of workshop for the preparation of accreditation draft proposal<br>• Draft proposal prepared for accreditation by working group;<br>• Orientation of the private clinic / lab owners and Government managers<br>• Orientation / sensitization on clinical governance for hospital service provider<br>• Regular updating of the list of private hospital / clinic / lab<br>• QA program introduced DH (Sensitization, TOT, training of service provider) | • Opinion seeking workshop for updating clinic & Lab registration completed - 03 workshops.<br>• 15 Divisional & District workshop completed for the preparation of accreditation draft proposal and Orientation / sensitization on clinical governance for hospital service provider.<br>• Draft proposal developed by the working group.<br>• In this FY the QA activities will be started with the QA cell. | • Orientation of the private clinics/lab owners and Govt. managers on existing clinical ordinance<br>• Orientation/sensitization on clinical governance of hospital service providers<br>• Regular updating of list of private hospitals/clinics<br>• Quality assurance and risk management program introduced at DHs |

| Activities | Objectives of the Program | Major Subactivities | Achievements | Future Activities |
|---|---|---|---|---|
| Specialized clinical services (Reconstructive surgery)-DMCH Burn Unit | To provide access for the poor to specialize clinical service i.e. Reconstructive surgery. | • Holding camp for cleft palate and lip<br>• Holding training for the service providers in baldes<br>• Procurement of Logistics<br>• Operational cost / Recurrent expenditure<br>• Repair & maintenance of equipment | • The authority of reconstructive surgery conduct ed 23-camps to repair the cleft palate and lip especially for the women children and provided access to the community for reconstructive surgery. 541-patients were benefited by above camps. | • Holding camps for cleft palate and lip<br>• Holding training for the service providers<br>• Holding workshops, conferences and seminars<br>• conducting research |
| Specialized clinical services (Reconstructive surgery) - NITOR | To strengthen the services of NITOR in patient care especially in reconstructive surgery. | • Procurement of the instrument & MSR for the reconstructive surgery<br>• Repair and maintenance of logistics and facilities<br>• Recurrent expenditure | • By the utilization of provided fund the service provider provided services to patients in increased number especially in reconstructive surgery. | • Support will be continued |
| Strengthening of existing workshop at NITOR | To strengthen the workshop of the NITOR for providing better patients care | • Workshop for the doctors and students to develop capacity<br>• Orientation of the technician for the skill development<br>• Fuel / transportation of patient<br>• Recruitment of the technician on master role<br>• Supply of medicine and implant to patient<br>• Exposure visit of the service provider<br>• Recurrent expenditure<br>• Repair and maintenance of logistics and facilities<br>• Procurement of logistics | • The existing workshop at NITOR developed their capacity in provided quality and better service.<br>• A good number of patients were benefited with the program especially receiving artificial limb. | • - Procurement of spare parts and raw materials<br>Repair and maintenance of hospital equipments and others |

| Activities | Objectives of the Program | Major Sub-activities | Achievements | Future Activities |
|---|---|---|---|---|
| Strengthening of TEMO | To strengthen the activities of TEMO by providing extra fund for repair maintenance of vehicle and other machineries. | • Procurement of spare parts<br>• Repair and maintenance of Vehicle (Small, heavy vehicle and ambulance )<br>• Procurement of vehicle, machineries and office equipments | • TEMO authority repaired a good number of motor vehicles and other machineries with the utilization of provided fund. | • Repair and maintenance of vehicles<br>• Procurement of vehicle machineries |
| Hospital Based Eye Care (SSI) | To improve hospital based eye care by GO and NGO collaboration. | • Renovation eye OT<br>• Conduction of situation analysis<br>• Procurement and supply of Equipment at DH<br>• Procurement and supply of medicine and MSR at DH.<br>• Organize review meeting for performance review, monthly and quarterly.<br>• Monitoring of the eye care activities<br>• Procurement of computer, Vehicle and motor cycle.<br>• Print and distribution of referral slip, reporting format and register.<br>• Conduct PEC evaluation,<br>• Repair and maintenance of equipment.<br>• Operational cost for program support. | • It is a one of the good example for GO and NGO collaboration; 5-DH are already equipped for providing better eye care.<br>• The service provider developed capacity for IOL (cataract) surgery | • Renovation of eye OT<br>• Conduct situation analysis<br>• Procurement and supply of MSR equipments<br>• Monitoring of eye care activities<br>• Repair and maintenance of necessary equipments |

| Activities | Objectives of the Program | Major Sub-activities | Achievements | Future Activities |
|---|---|---|---|---|
| WHO-BAN Program | To improve the blood safety situation in the country | • BAN Program for blood safety | • Doctors and paramedics working in the blood bank were provided training on blood safety for improving the services<br>• Important documents were produced under APW with an aim to improve the situation. | • Support will be continued |
| Strengthening of BSMMU<br>National Heart Foundation,<br>Ahsania Mission Cancer Hospital | To strengthen the capacity of private / NGO hospitals for better health care delivery | • Procurement of equipment for improving the quality of care | • Fund has been allocated to the mentioned institutions for procurement of necessary equipments | • Support will be continued |
| National Centre for Rheumatic Fever and Heart Diseases | To develop the capacity of the institution to provide better care. | • Operational cost<br>• Repair and maintenance<br>• Acquisition of assets (Vehicle, instrument, furniture and Office equipment) | • Extra fund was provided for improving their range and quality of services. As a result of that the authority provided increase number of patient care. | • Conducting training for the service providers and community leaders<br>• Conducting seminar and workshop<br>• Purchase of books and periodicals |
| Strengthening of MCH at 2nd and Tertiary | To equip the secondary and tertiary level hospital for providing better health care and also the improvement of accessibility in respect of women, children and poor patients. | • Supply of Instrument & equipment in relation to Maternal & child health at secondary and tertiary level hospital. | • Procurement of equipment is under process. After completion of the procurement it will be supplied to MCH and district hospital to improve service | • Supply of MSR and other medicines for strengthening MCHs and DHs |

# Alternative Medical Care

## Introduction

Alternative Medicine popularly known as Unani, Ayurvedic and Homeopathic Medicine has been playing a significant role in the health care delivery system in the developing countries of this region including Bangladesh from time immemorial. Although tremendous progress has been taken place in the field of modern medicine particularly in synthetic pharmaceuticals and antimicrobials, the practice and use of alternative medicine is being continued through out the country even today.

Bangladesh being one of the few developing countries with a very large population living in the rural areas in the midst of extreme poverty can hardly afford the expensive diagnostic and treatment facilities of modern medicine. Due to lack of adequate support and patronization from state, the alternative medicine is being practiced now a days mostly by unqualified persons in unscientific and unethical manner and the quality medicinal preparation are also scarce for lack of support in manufacturing process and industrial plants.

After the Drug Control Act (1982) Bangladesh Government has taken different steps for the development of Alternative Medicine. Government Unani and Ayurvedic Degree College was established in 1990 and Homeopathic Degree College was established in the same time. Both of the colleges are located at Mirpur and are being run smoothly. The admission criteria of both the colleges are similar to the MBBS course. After completion of 5 years course BUMS (Bachelor of Unani Medicine and Surgery) and BAMS (Bachelor of Ayurvedic Medicine and Surgery) Degrees are offered.

One year internship course is compulsory in the respective 100 bedded college hospitals for those who complete their five years course successfully. Both of the college hospitals provide outdoor & indoor facilities. Graduate doctors are now available to provide quality services for the community at large.

During HPSP 45 alternative medical officers have been appointed. To grow awareness and explore perception about Alternative Medical Care a large amount of manuals on Traditional Medicine have already been prepared under UBCC. Sixty four support personnels have been appointed to support the medical officers in the related district hospitals and 467 gardeners, have also been appointed to take care of the established 467 herbal gardens.

## Component programs

i) Monitoring, evaluation & survey of Alternative Medical Care Services.

ii) Continuation of Alternative Medical Care Services (Including manpower, Orientation/workshop/ Training (Local /Overseas) Study Tour/ BCC Activities, fellowship etc.

iii) Creation and maintenance of herbal garden at district and upazila level hospitals.

iv) Procurement of medicine, medical requisites and maintenance materials for herbal garden and office equipments.

v) Preparation of Alternative Medical Care Pharmacopoeia, introduction of licensing system and standard treatment guidelines for AMC with the help of Technical Assistance (TA).

vi) Preparation of PG Course curriculum & process for implementation.

vii) Purchase of jeep, furniture, computers etc. and process for establishment of registration council.

viii) Purchase of furniture, vehicles, office equipments, MSR etc. for the development of Government. Unani and Ayurvedic Degree College and Hospital (GUADC&H), Government Homeopathic Degree College and Hospital (GHDC&H) and Government Tibbia College & Hospital, Sylhet

ix) Creation of herbal garden at central level and also establishment and functioning of research and production units of GUADCH and GHDCH.

## Objectives

### Overall objective

- To Expand Alternative Medical Care throughout the country for easy availability with the least cost for the people of the country.

### Specific objectives

- To develop and expand alternative medical care as an effective treatment and give it institutional shape;
- To reduce dependency on the allopathic system of medicine and explore people's perceptions on alternative medicine by providing quality services;
- To improve the standard of alternative medicine and increase demand for quality care and thereby reduce unsound treatment practices;
- Establishment of more Graduate Colleges for expansion of AMC services;
- Establishment of central herbal garden for academic and research purpose and also collection of raw materials;
- Skill development of the providers.

## Activities

- To provide salary and allowances for 576 AMC health personnels;
- Monitoring, evaluation & survey of Alternative Medical Care Services;
- Training and Orientation workshops for District and Upazila Health managers, AMC Health personnels, Snake charmers (Ojha-to reduce mortality rate through snake bite) and others;
- Overseas training and fellowship for AMC Health personnels;
- BCC activities for growing awareness to the mass people of the country;
- Creation and maintenance of herbal garden at district and upazila level hospitals;
- Procurement of medicine, medical requisites, maintenance of materials for herbal gardens and office equipments for better facilitation;
- Preparation of Alternative Medical Care Pharmacopoeia, introduction of licensing system and standard treatment guideline for AMC;
- Preparation of PG Course curriculum & process for implementation;
- Purchase of jeep, furniture, computer etc. and maintenance of the materials;
- Establishment of registration council for Unani, Ayurvedic and Homeopathic disciplines;
- Purchase of furniture, vehicles, office equipments, MSR etc. for the development of Government Unani and Ayurvedic Degree College and Hospital (GUADC&H), Government Homeopathic Degree College and Hospital (GHDC&H) and Government Tibbia College & Hospital, Sylhet;

- Creation of herbal garden at central level for research and academic purpose;
- Establishment and functioning of research unit of Government Unani and Ayurvedic Degree College (GUADC) and Government Homeopathic Degree College (GHDC) for research and development of AMC services.

## Justification of each program/ activity

Expansion of Alternative Medical Care and improvement of the standard of Alternative Medicine will increase the demand of quality care that will be found from the accessibility of Alternative Medicine. People will get the service of Alternative Medicine along with Allopathic Medicine from the Government Health Facilities. Awareness about Alternative Medicine will help the people to get the service with minimum health hazards and the established 467 herbal gardens at District Hospitals and Upazila Health Complex premises will inspire the people to plant medicinal plants in their home steads and lands. At this, dependency and burden on conventional treatment may be reduced. In some cases diseases may be cured with least cost and even some diseases may be cured without any cost.

## Current global and country situation with respect to eac program/activity (Indicators, targets etc.)

To provide quality services with Traditional Medicine, 45 Medical Officers (15 Unani, 15 Ayurvedic and 15 Homoeopathic) on Alternative Medicine have been appointed in the selected District level Hospitals under the work plan of HPSP so that the patients of these districts have the option to receive the types of treatment according to their own choice. To assist the Medical Officers 64 support personnel (Compounders) have been appointed. To develop awareness on medicinal plants, 467 herbal gardens have been established at 64 District Hospital premises and 403 Health Complex premises for demonstration of the community people. To look after the established herbal garden 467 herbal gardeners have been appointed. Now a total of 576 Alternative Medical Care (AMC) Health Personnel have been working at different places. Beside this, one Government and different Non-Government institutions are providing Diploma Certificates like DUMS, DAMS, DHMS under the Board of Unani, Ayurvedic and Homeopathic system of medicine. Apart from the Government services, some of the Graduate and Diploma certificate holders are working at different Non-Government Organizations.

Use of Traditional Medicine throughout the World is increasing day by day. According to the Secretariat of the Convention on Biological Diversity global sales of herbal products totaled an estimated US$ 60000 million in 2000 (Ref: WHO Guidelines on GACP for medicinal plants, Geneva, 2003).

Africa upto 80% of Populations uses Traditional Medicine to help meet their healthcare needs. In Asia and Latin America people continue to use Traditional Medicine as a result of historical circumstances and cultural beliefs. In China, Traditional Medicine accounts for around 40% at all health care delivered. In many developed countries Traditional Medicine is becoming more and more popular. The percentage of population which has used Traditional Medicine at least once is 48% in Australia, 70% in Canada, 42% in USA, 38% in Belgium, and 75% in France.

In parts of the world, expenditure on Traditional Medicine is not only significant, but growing rapidly. In Malaysia, an estimated US$ 500 million is spent annually for Health Care compared to about US$ 300 million on

allopathic medicine. In USA, Australia, Canada and United Kingdom annual TM expenditure is estimated at US$ 2700 million, US$ 800 million, US$ 2400 million & US$ 2300 million respectively. In Uganda, the ratio of TM practitioners to population are between 1: 200 and 1: 400. (Ref. WHO Traditional Medicine Strategy 2002-2005, WHO, Geneva)

**Process of implementation:** The activities of the program are being implemented as per implementation mechanism mentioned in the Operational Plan (OP).

| Activities | Coordinated by | Supervised by | Implemented by | Remarks |
|---|---|---|---|---|
| Upgradation of Under Graduate curriculum, development of PG course -curriculum & process for opening. | LD | PM | DPM | With the help of CME, member of course curriculum development committee, DU, BSMMU a nd related teachers of GUADC and GHDC. |
| Orientation Workshop | LD | PM | DPM | With the help of related health managers from division, district and upazilla. |
| B.C.C activities | LD | PM | DPM | w ork may be contracted out to NGO's |
| Evaluation of Alternative Medical Care Services. | LD | PM | DPM | W ork may be contracted out to reputed GOB/NGO institutions |
| Preparation of A.M.C Pharmacopoeia. | LD | PM | DPM | Partly contract out i.e.; Laboratory works |
| Formulation of standard treatment guidelines and criteria. | LD | PM | DPM | Expert opinion will be taken by doing some workshops. |
| Procurement of Medicine. | LD | PM | DPM | Respective authority will purchase. |
| Fellowship for P.G Studies | LD | PM | DPM | As per Govt. rules |
| Survey of AMC services. | LD | PM | DPM | Director office will do. |
| Creation & Maintenance of Herbal Garden | LD | PM | DPM | Respective authority will do as per Govt. rules. |
| Purchase of Furniture, Computer& accessories, Office equipment, MSR, etc. | LD | PM | DPM | Respective authority will do as per Govt. rules. |
| Purchase of vehicles. | LD | PM | DPM | With the help of CMSD |
| Creation of herbal garden at central level | LD | PM | DPM | LD office will do with the help of CMMU |

## Monitoring and supervision mechanism

The program will be monitored and supervised through the prescribed format (IMED-2, 3 & 5) from Implementation, Monitoring and Evaluation Department (IMED) of Planning Ministry and Financial Monitoring Report (FMR) from Financial Management and Audit Unit (FMAU) of Health Ministry.

## Achievements (in quantitative and qualitative terms)

- Monitoring & evaluation and survey for 3 disciplines of Alternative Medical Care services conducted in 2007-2008;
- 16 orientation workshops for AMC Health personnels conducted in 2007-2008.
- Fellowship for 01(One) Medical Officer for Post Graduate study;
- Establishment of 22 Billboards at 22 District Hospitals and preparation & distribution of Posters, Stickers, Audio-video CDs etc at different Districts and Upazilas under BCC activities to grow awareness to the mass people of the country;
- Maintenance of 64 herbal gardens at District Hospitals and 403 at Upazila Health Complexes;
- Procurement of medicine and MSR for 45 District Hospitals;
- Preparation of Alternative Medical Care Pharmacopoeia (Volume-1 for 3 discipline each);
- Preparation of 3 standard treatment guidelines for Unani, Ayurvedic and Homeopathic disciplines;
- Purchase of 45 Motorcycles for 45 AMC Officers;
- Purchase of Computers & accessories, furniture, office equipments, etc. for 45 District Hospitals and for the development of Government. Unani and Ayurvedic Degree College and Hospital (GUADC&H), Government Homeopathic Degree College and Hospital (GHDC&H) and Government Tibbia College & Hospital, Sylhet;
- Process for establishment of registration council for Unani, Ayurvedic and Homeopathic disciplines.

## Future plans

- Continuation of monitoring, evaluation and survey of Alternative Medical Care Services;
- Continuation of Training and Orientation workshops for District and Upazilla Health managers, and AMC Health personnels;
- Training workshops for Snake charmers (Ojha) to reduce the mortality rate through snake bite and others;
- Continuation of Fellowship activities for Post Graduate education for AMC Health personnel;
- Continuation of BCC Activities to grow awareness to the mass people of the country;
- Continuation of Maintenance of herbal garden at District and Upazila level Hospitals;
- Procurement of medicine, medical requisites, and office equipments for better facilitation;
- Continuation of Preparation of Alternative Medical Care Pharmacopoeia;
- Purchase of vehicles, furniture, computers etc;
- Continuation for establishment of registration council for Unani, Ayurvedic and Homeopathic discipline;

- Purchase of furniture, office equipments, MSR etc. for the development of Government. Unani and Ayurvedic Degree College and Hospital(GUADC&H), Government Homeopathic Degree College and Hospital (GHDC&H) and Government Tibbia College & Hospital, Sylhet;
- Creation of herbal garden at central level for research and academic purpose;
- Establishment and functioning of research unit of Government Unani and Ayurvedic Degree College Hospital (GUADC&H) and Government Homeopathic Degree College and Hospital (GHDC&H) for research and development of AMC services;
- Other activities will be continued throughout OP period.

- Total No. of Unani Graduates (BUMS): 364
- Total No. of Ayurvedic Graduates (BAMS): 297
- Total No. of Unani Diploma holders (DUMS): 1025
- Total No. of Ayurvedic Diploma holders (DAMS): 491
- Total No. of Homeopathic Graduates (BHMS): 616
- Total No. of Homeopathic Diploma holders (DHMS): 16222
- Total No. of AMC Health personnels: 576

  Medical Officers; Unani: 15, Ayurvedic: 15 & Homeopathic: 15, Support personnel's: 64, Gardeners: 467
- Total no. of medicine manufacturing companies;

  Unani: 261, Ayurvedic: 161, Homeopathic about: 60.

**N.B: Data collected before December 2007.**

# Public Health Interventions & Non-Communicable Disease Control

## Introduction

Against the background of advances in the management and control of most communicable diseases, major threats to good health in Bangladesh now arise from a broad spectrum of risk factors, many of them are preventable. These include industrial waste discharge and vehicle emissions, inadequacy in sanitation and solid waste management, inadequate vector control, arsenic poisoning of ground water, sedentary life style, obesity, tobacco abuse, abuse of narcotic and other additive drugs, road accident and other causes of preventable injuries, unsafe injection practice, poor occupational health including inadequate fire safety standards, inadequate food safety, and violence against women and adolescent girls.

The rising burden of NCDs, in Bangladesh, during the present epidemiological transition, requires an adjustment in the priorities for the HNP sector. Among the NCDs cardiovascular diseases (ischemic heart disease, hypertension and stroke), diabetes mellitus, cancer and chronic respiratory diseases require priority attention because they are leading causes of deaths in the adults. They are amenable to cost effective prevention and improved management. An effective prevention program will require coordinated actions by the Government, private and non-governmental providers, and professional bodies.

## Major Components of Operational Plan

- Arsenic, Road Safety, Injury Prevention and NCD
- Support to Institute of Public Health
- Occupational and Environmental Health
- Health of Senior Citizens, Adolescnts and Disabled

## Arsenic, Road Safety, Injury Prevention and NCD

### Aims and Objectives

- To diagnose and manage the Arsenicosis patients.
- To provide training to the government and non-government doctors, nurses, field workers and village doctors about arsenicosis case detection management and surveillance.
- To create public awareness on arsenic.
- To create awareness about drinking safe water among the arsenic affected patient and their families.

### Strategies

- To conduct training workshops for the service providers to improve their skill for quality service.
- To conduct screening/searching (active surveillance) activities from house to house to register arsenicosis patient in the country.
- To supply necessary medicines to the centers to manage arsenicosis patients.
- To increase public awareness on arsenicosis and source of safe drinking water by preparing IEC, leaflet, miking and media publicity.
- To conduct research on arsenic and to reduce complications of arsenicosis.

### Activities

- Training programs for the doctors at upazila and district level.
- Training programs for the senior staff nurses of upazila and district level.
- Training programs for all medical technologist and health and family


*Awareness campaign on Dangers of Arsenicosis*

planning staffs of field level at upazila and district level.

- Supply of necessary medicines for the arsenicosis patients in every upazila and district hospitals.
- To increase public awareness about arsenicosis and source of safe drinking water by leaflet, miking and media publicity.
- To conduct surveillance activity for appropriate statistics on arsenicosis patients of the country.
- Monitoring workshop at district level for correct report and record keeping.

## Achievements

- Training program for the civil surgeons and deputy directors (FP) of all 64 districts has been completed. Total No. - 128
- Training program of UH&FPOs, UFPOs and MOs (DC) of 460 upazilas have been completed. Total No.- 1,380 Persons.
- Training program of general physicians of whole country: 6,200
- Training program of senior staff nurses of whole country. Total No.-5,500.
- Training program of medical technologists Total No.-860
- Training program of Staistitician Total No.-500.
- Training program of health and family planning workers. Total No.-36,500
- Arsenic poster and two videocassettes: one titled 'Arsenic-an invisible poison' and "Nirapad Pani" are made distributed to electronic media and different upazilas to create public awareness
- For detection of arsenicosis patients house to house screening had been completed. Total upazila - 230
- Some medicine for the management of arsenicosis patients had been to distributed to priority districts and upazila hospitals
- Distribution of flip charts containing pictures of arsenicosis patients in all upazilas.
- Development of a training module for the doctors, nurses and field workers of health and family planning
- Some researches on arsenicosis had been completed
- Until now a total of 90 resource persons were sorted and TOT (Training of Trainers) completed.

## Future Activities

- To complete the on going basic and refreshers' training program for the medical doctors (Govt. and Private) of upazila and district level.


*Training of Staffs and Field workers on Diagnosis of Arsenicosis and Management*

- To complete the on going training program for the senior staff nurses of upazila and district level.
- To complete the on going training programs for all medical technologists and health and family planning staffs of field level at upazila and district level.
- To supply arsenic test kits to every upazila and district hospital.
- To provide the arsenicosis patients with necessary medicines at upazila and district level.
- Steps have been taken to create public awareness on arsenicosis by miking, showing video CDs on arsenic, television advertisements, talk shows, posters, leaflets and billboards.
- To complete the ongoing surveillance at upazila level to obtain the correct statistics on arsenicosis patients.
- Steps have been taken to conduct research on the numbers of arsenicosis patients developing cancer and to find out the cause of it.
- To continue the ongoing monitoring workshop at district level for correct reporting and recording.

## Support to IPH

### Aims and Objectives

- Modernization and further capacity building of production units. ARV tissue cell culture vaccine, Tetanus toxoid, Anti-snake venom serum (ASVS).
- Modernization and strengthening of existing laboratories.
- Training/workshops on Good Laboratory Practice and Laboratory Management, Computer, English Language, Secretarial/ Financial Management, etc.

### Strategies

To procure materials/goods under the government buying policy and to arrange training program in Good Laboratory Practice & Laboratory Management by IPH. Also to organize Training /Courses on Computer, English Language, Secretarial/ Financial Management by private institutions for the staff.

### Activities

- Modernization and further capacity building of production units. ARV tissue cell culture vaccine, Tetanus toxic, Anti snake venom serum (ASVS).

- Modernization and strengthening of existing laboratories.
- Training/workshop on Good Laboratory Practice & Laboratory Management, Computer, English Language, Secretarial/Financial Management etc.

### Achievements

IPH staffs have been given training on Good Laboratory Practice & Laboratory Management in order to increase the skill of IPH laboratory staffs. Basic Computer Training was also given.

### Future Activities

- To convert ARV into Cell Culture Vaccine.
- Plan has been taken to restart the production Anti-snake venom (ASVS) and Tetanus Toxoid (TT).
- Steps are taken to renovate and modernize the different laboratories of this institute and to arrange workshops to increase the public awareness regarding food safety.
- Training on Good Laboratory Practice & Laboratory Management for the improvement of the skill of health and also to organize training on Computer, English Language, Secretarial/ Financial Management, etc. for the staffs of IPH and other health institutions.

## Occupational and Environmental Health

### Aims and Objectives

- To ensure good health of the workers and thus to increase production and economic development of the country.
- To create public awareness about fresh environment.
- To develop a national strategic paper on Occupational and Environmental Health.

### Strategies

1. Workshop/Training.
2. To conduct survey on present occupational health and safety status of the industrial workers.
3. To increase awareness of the workers by using signboard/ banner/ handbills.

### Activities

- Workshop/training (to aware the industrial workers about occupational disease, occupational hazards and injuries and their prevention.
- Study (in industries).
- Study (on work environment).
- To develop a national strategic paper on Occupational and Environmental Health
- To build a National Centre for Occupational and Environmental Health & Safety.

### Achievements

- Workshop/Training: 52 batches (30 in each batch) in 2007-2008.
- Survey: 2007-2008: 02 in numbers
- Study: Study on Fluoride in drinking water and its toxic effects on human health.
- 75% of the preparation work of a national strategic paper on Occupational and Environmental Health has been completed.

### Future Activities

To continue the ongoing activities and to construct a National Centre for Occupational and Environmental Health & Safety.

## Health of Senior Citizens, Adolescents and Disabled

### Aims and Objectives

To develop awareness among the Senior Citizens about the health and to enable them lead a normal life style.

### Strategies

To develop training module for two (02) days TOT of healthy officers of upazilla level about the general health problems and diseases of the senior citizens and to arrange training for the health workers by these trainers. The trained health workers will work to increase the health awareness among the senior citizens.

### Activities

- To survey the health status of the senior citizens.
- To conduct KAP (Knowledge, Attitude and Practice) Study about the health status of senior citizens.
- To arrange workshops for the health workers at upazila level to increase the health awareness of the senior citizens.

### Achievements

- 93% of the target has been achieved.
- Total 167 workshops have been organized at upazila level from 2007 to 2008.
- Surveys on 14 diseases among the senior citizens have been completed.

### Future Activities

- To survey the health status of senior citizens.
- To conduct KAP study.
- To arrange workshop on increase health awareness among the senior citizens at upazila level.
- To construct old homes for the senior citizens.
- To distribute aid materials among the poor and disabled senior citizens.
- To prepare leaflet, banners and billboards regarding the health awareness of senior citizens and to place them in visible areas.

# National AIDS/STD & Safe Blood Transfusion Program

## Introduction

National AIDS/STD and Safe Blood Transfusion Program both resort under the Directorate General of Health Services (DGHS) within the MOHFW.

## Background

The first case of HIV/AIDS in Bangladesh was detected in 1989. Since then a total cumulative of 1,207 cases of HIV/AIDS have been confirmed and reported as of first December 2007. Of these, 365 have developed AIDS; out of whom 123 have died. However, during the period of December 2006 to December 2007 a total of 333 new HIV infections were recorded and reported, of which 125 new AIDS cases were identified of whom 14 died (NASP, 2007). In all the seven rounds (1998-2006) of National HIV Serological Surveillances that have been carried out to date, the HIV rates have been remained below 1% in all groups except in IDUs. In central Bangladesh, where HIV positivity among IDUs reached from 1.4% in 2000 to 7% in 2006, a level closed to concentrated epidemic. But in certain localities it has reached as high as 10.8%. HIV infection of this level and above among IDUs poses serious risk as the epidemic may expand rapidly to sex workers and their clients and eventually to the general population. Although there is a declining trend still the 7th round of sero-surveillance (2005/2006) has shown significant rates of active syphilis among different vulnerable groups; Female Sex Worker (FSW) (1-10%), Male having Sex with Male (MSM)/Male Sex Worker (MSW) (4-6%), Intra venous Drug User (IDUs) (1-9%). Hepatitis C prevalence rates among the IDUs were 20-58% during the same time period. This prevalence is comparable to those in other countries in the region that are experiencing a concentrated and growing HIV epidemic. Active syphilis and Hepatitis C are major risk factors for HIV transmission.

## Program Components

1. HIV/AIDS Program within HNPSP.
2. HIV/AIDS Targeted Intervention (HATI)
   - MSA - UNICEF
   - 11 Consortium
   - 42 NGOs
3. GFATM Round 2: Prevention of HIV/AIDS among Young People in Bangladesh
   - MSA - Save the Children-USA
   - 5 Consortium
   - 11 NGOs
4. GFATM Round 6: HIV Prevention and Control among High-Risk Population and vulnerable young people in Bangladesh.
   - MSA - Save the Children-USA
   - 8 Consortiums
   - 38 NGOs
5. WHO Biennium

## Objectives

Objective-1 Provide support and services for priority groups

Objective-2 : Prevent vulnerability to HIV infection in Bangladesh society

Objective-3 Promote safe practices in the health care system

Objective-4 Provide care and support services for people living with HIV/AIDS

Objective-5 Minimize the impact of the HIV/AIDS epidemic.

**Activities:** There are two types of procurements:

i) Service procurement action

ii) Good procurement action

**1. Service Procurements - 39 Packages**

P-1 Intervention for Brothel Based Sex Workers

P-2 Intervention for Street Based Sex Workers

P-3 Intervention for Hotel & Residence Based Sex Workers

P-4 Intervention for Internal Migrants/Clients of Sex Workers

P-5 Intervention for Men having Sex with Men (MSM) & Transgender

P-6 Harm Reduction Program for IDUs

P-7 Introduce Harm Reduction Activities in Prison

P-8 Intervention among External Migrants.

P-9 Intervention among Vulnerable Women other than Sex Workers

P-10 Intervention for Brothel Based Sex Workers

P-11 Intervention for Street Based Sex Workers

P-12 Intervention for Hotel & Residence Based Sex Workers

P-13 Intervention for Internal Migrants/Clients of Sex Workers

P-14 Intervention for Men having Sex with Men (MSM) & Transgender

P-15 Harm Reduction Program for IDUs

P-16 Introduce Harm Reduction Activities in Prison

P-17 Intervention among External Migrants

P-18 Intervention among Vulnerable Women other than Sex Workers

P-19 Drug Substitution

P-20 Advocacy

P-21 Communication

P-22 VCT Services

P- 23 VCT Services

P-24 PMTCT and Couple Based Program

P-25 Community and Home Based Care

P-26 Training

P-27 Capacity-building of STI & AIDS Network

P-28 Research & Studies

P-29 Conduct Integrated Bio-behavioral Surveillance

P- 30 Cohort Study with IDUs

P-31 Develop Guideline and other Activities

P-32 Develop Outreach Centers as Model Learning &Training Sites

P-33 End Project Evaluation

P-34 Performance Audit

P-35 Technical Support to NGOs

P-36 Impact Evaluation of Targeted Intervention

P-37 TA Support/ Consultants

P- 38 Support Staffs

P-39 Services Stuff (Cleaning, Driving & Security)

## Activities Directly Implemented by NASP

1. Prevention and Intervention for most at Risk Group
2. Prevention for General Population
3. Treatment, Care & Support for PLWHA
4. Impact Mitigation
5. Capacity of NASP to Coordinate the National Responses

## Procurement Plan of Goods for NASP

Package :14

P-NASP/G1 :Condom

P-NASP/G2 :Lubricant

P-NASP/G3 :Re-agents and chemicals

P-NASP/G4 :CD4 counters for GOVT Medical College

P-NASP/G5 :ARV (Anti Retro Viral Drugs) Drugs for prophylaxis and treatment of OIS (Opportunity Infection)

P-NASP/G6 :Laboratory Equipment

P-NASP/G7 :Deep Refrigerator

P-NASP/G8 :Medical Equipment (i. BP Instrument, ii Stethoscope, iii Weight Machine, iv. Digital Blood Sugar Monitor)

P-NASP/G9 : Office Communication equipment LAN

P-NASP/G10:Training Equipment

P-NASP/G11:Photocopier

P-NASP/G12:Office equipment (Computer Lap -top, Computer with accessories (Replacement), UPS, Scanner, Fax machine, Laser Printer (replacement), Color Printer, Air Conditioner (Splint type), Air Conditioner (Window type))

P-NASP/G13:Furniture

P-NASP/G14:Logistic and stationeries

## Procurement Plan of Goods for SBTP

**Package** :16 Implemented by CMSD

**P- SBTP/G1 :** HIV-RAPID, HCV-RAPID

**P- SBTP/G2 :** HBs AG-Rapid Device RPR, MP

**P- SBTP /G3 :** Anti-A reagent (10 m), Anti-B reagent (10 m), Anti-D reagent (10 m), Anti-Human reagent (10 m)

**P- SBTP/G4 :** Lab Tips, pipette, Reagent Bottle (250 ml), Stirring Glass Rod, Microscope Glass Slide, Test Tube

**P- SBTP /G5 :** Timer, Kidney Tray, Instrument Tray, Weight Machine, Test tube Rack

**P- SBTP/G6 :** Artery forceps, Scissor, Swab Holding Forceps,

**P- SBTP /G7 :** BP Instruments, Stethoscope

**P- SBTP/G8 :** Blood Bag, Hand Glove, Gripper for Donor

| | |
|---|---|
| **P- SBTP/G9 :** | Blood Bank Refrigerator, Deep Freezer, Pharmaceutical Refrigerator |
| **P- SBTP/Gl0 :** | Air conditioner, Generator |
| **P- SBTP/G11:** | Laboratory Microscope |
| **P- SBTP/G12:** | Water Bath, Coomb's Cell Washer, VDRL Shaker, General purpose centrifuge Machine |
| **P- SBTP/G13:** | Voltage Stabilizer |
| **P- SBTP /G14** | Autoclave, Syringe needle destroyer, Hot Air Oven, Distilled Water Plant |
| **P- SBTP/G15:** | Blood Collection Monitor, Digital Micropipette |
| **P- SBTP/G16:** | Furniture, Bleeding Khat, Laboratory Table, Armless Revolving Chair, Armless Helna Bench, Half Secretary Chair, Half Secretary Table, Arm Cushion Chair, Steel Almirah, Full Secretary Table, Revolving Chair with Arm, File Cabinet, Blood Donation Chair |

## Justification of key program activities

### 1. Targeted interventions for the most vulnerable groups

Targeted interventions for IDU, sex workers and men who have sex with men are the most important strategies for prevention of a major epidemic in Bangladesh. The coverage required for a positive impact on HIV transmission is 60 to 80%. This assumes that interventions are comprehensive and implemented according to international best practice.

Major activities are:

### 1. Targeted intervention through NGOs

**HIV / AIDS Targeted Intervention (HATI):** NASP has contracted UNICEF to support NGOs to run intervention among IDUs, sex workers and client of sex workers as part of HAPP. HAPP ended in December 2007. To bridge the gap during transition form HAPP to HNPSP, a one year (Jan - Dec 2008) extension of UNICEF contract to coordinate NGOs was done. This was named as HATI. Currently 45 NGOs through 12 consortiums are implementing the activities.

### Prevention, Treatment, Care and Support Strategies with IDU, FSW, PLWHA, Vulnerable YP at Garments, Capacity Building and Scaling up of R2 supported by GFATM Round 6:

The GFATM R6 aims to limit the spread and impact of HIV in the country by improving coverage and quality of essential HIV services for the most vulnerable, high-risk populations, while emphasizing primary prevention and risk reduction for especially vulnerable young people. GFATM R6 will close existing gaps in several priority areas, while building national and district-level capacity to coordinate and strengthen the response. Currently 36 NGOs/CBOs and academic organizations through 8 consortiums are implementing the activities.

**2. Capacity building of self-help groups and NGOs to implement targeted interventions:** NASP will contract UNICEF, Save the Children -USA and other NGOs to build capacity in

intervention design and program management as part of HAPP, HNPSP and GFTAM. NASP will also support self-help groups and community based organizations to register and build their capacity, so they can get involved in the response.

## 2. Prevention for the general population

Prevention in the general population is a long-term strategy. Most of the prevention services, such as blood safety and improved STD control, are beneficial of themselves. Others, such as mass awareness and life skills education for adolescents, will reduce new infections but at the same time create a supportive environment for AIDS control.

i. ***Mass awareness campaigns and IEC:*** NASP will establish a national advocacy and communication working group, and contract private sector firm(s) to design and implement professional multi media campaigns. NASP will also coordinate World AIDS Day and other national events.

***ii. Awareness and sensitization of national leaders:*** NASP will develop a national level advocacy plan, with prioritized target audiences and communication objectives. On that basis NASP will, or contract NGOs to, undertake advocacy workshop and seminars with a variety of opinion leaders, gate keepers and decision makers.

***iii. STD management in public and private sector:*** NASP will develop and disseminate national STD syndromic management protocols. In coordination with the In-service Training Program, NASP will develop training curricula, undertake training of trainers, and organize for in service training or of all relevant public and private sector health workers. NASP will procure and distribute STD drugs to 4,000 health centers. District level hospitals will be upgraded as STD referral clinics.

***iv. Condom programming:*** Where possible NASP will propose/delegate procurement and distribution to other departments in the MOHFW and the private sector. NASP will coordinate with condom marketing firms to ensure condom availability and promotion.

***v. Youth and Adolescent sexual health services:*** Save the Children USA will continue implementation of the adolescent sexual health program, supported by GFATM. NASP will coordinate with School Health Department of the Ministry of Education and the Maternal and Child Health Program.

GFATM Round 2: Goal of GFATM Round 2 is "to prevent HIV infections in young people, ages 15-24, and thereby help avert a generalized HIV epidemic in Bangladesh". Specific activities are:

- HIV prevention information to young people through mass and print media
- Making health services more youth friendly
- Providing life skills education through youth organizations, movements and clubs
- Improving condom access through social marketing
- Integration of HIV prevention information into secondary schools and higher secondary curriculum
- Advocacy and sensitization with gatekeepers - religious and community leaders, policy makers and parents
- Baseline surveys and evaluation surveys
- In-depth studies on community dynamics, sexual practices and attitudes of young people

***vi. Universal precautions in the health sector:*** In coordination with SBTP, the Health Care Waste Management project (under Essential Health Packages, DGHS) and others, NASP will develop technical guidelines for universal precautions and infection control in the health services. Through training and dissemination of standard operating procedures, capacity of health workers will be increased.

### 3Blood transfusion services

### 4. Treatment, care and support services for people with HIV

Although prevention is the major priority for the national response, increasing numbers of people with HIV need support, care and antiretroviral treatment. The major focus of NASP is to prepare the health sector to deal with a HIV disease if and when the epidemic expands, including legislation around production and import of ARV. The second focus is to provide comprehensive care to those already infected, and to provide testing and counseling (VCT) to those who need it. PMTCT services are included in the care and support component because the management is in the health sector and services include counseling, testing, ARV prophylaxis and treatment.

### 5. Reduce the impact of HIV on society and communities

Even in a concentrated epidemic, certain sectors are especially vulnerable to adverse impact of HIV, e.g. security forces, or overseas Bangladeshi workforce, who brings in the largest share of foreign currency. Conversely, some sectors are well placed to address the factors to drive the epidemic, e.g. the education sector, or to reach out to large numbers of vulnerable people, e.g. the prison services. Morbidity and mortality, but also stigma and discrimination of people with HIV (or assumed to be at risk) underlie negative impacts.

### 6. NASP capacity and action to coordinate a national, multisectoral response

1. *National M&E and research:* NASP is responsible for the monitoring and evaluation of the national response. To this end, NASP will finalize the national M&E framework with support of UNAIDS and UNFPA. NASP will also establish the physical and human resources to coordinate implementation of national M&E. This will include setting up an M&E team, who will coordinate data collection, analysis and dissemination to all stakeholders. HIV Sentinel Surveillance will be implemented through ICDDR, B and IECDR, and behavioral surveillance thru FHI. NASP will coordinate closely with HMIS department and the Bureau of Statistics, for the DHS.
2. *Multi-sectoral liaison, advocacy and strategic planning TA:* NASP is responsible to engage all relevant sectors and stakeholders in the national response. This will involve advocacy, and technical assistance for sector analyses, strategic planning and policy development and/or service delivery. NASP will also engage non-government organizations, including the private sector, faith based groups and professional associations and unions. Finally, NASP will support decentralization of the response, including technical assistance for mainstreaming HIV in local development planning, and establishment of and TA for District Health Development Committees.

### The global situation

- Number of people living with HIV up to 2007
  1. Total-33.2 million
  2. Adults-30.8 million
  3. Women-15.4 million
  4. Children under 15 Years-2.5 million

- People newly infected with HIV in 2007
  1. Total-2.5 million
  2. Adults-2.1 million
  3. Children under 15 Years-420000
- AIDS deaths in 2007
  1. Total-2.1 million
  2. Adults-1.7 million
  3. Children under 15 Years-330000

## HIV *I* AIDS situation in Bangladesh

1. Number of people living with HIV up to 2007 -1207.
2. People newly infected with HIV in 2007 - 333
3. Number of people living with AIDS up to 2007 - 365 (Including newly infection)
4. AIDS deaths in 2007 - 14
5. AIDS deaths up to 2007 - 123

**NASP: Targets**

| Components | Target |
|---|---|
| Increase scale and quality of targeted intervention for vulnerable populations | Targeted intervention for the vulnerable population.<br>• Injecting Drug Users - 20000- 40000<br>• Brothel Sex Worker - 3600- 4000<br>• Street Sex Worker - 37000- 66000<br>• Residence. & Hotel Sex workers – 14000 -20000<br>• Internal Migrant (client of sex workers)-192895<br>• Men having Sex with Men - 40000 - 150000<br>• Transgender / Hijra - 10000- 15000 |
| Strengthen management capacity of all partners for national program activities | Development of modules/ guidelines and trainings:<br>• HIV / AIDS Module for Health Managers<br>• National Harm R eduction Strategy<br>• Nurses' manual on HIV/AIDS<br>• HNPSP Operational Plan for HIV/AIDS (2006 - 2010) |
| Develop and implement one unified national, monitoring and evaluation system | • Regular functioning of National M & E Technical Working Group<br>• Operationalization of National HIV / AIDS Monitoring and Evaluation frame work<br>• Use of Monitoring tools (including Quarterly / Biannual Performance Report Forms) to monitor the activities of HATI<br>• Development of HIV / AIDS reporting system by the VCT Centers and Laboratories cond ucting confirmatory HIV test. |
| Create an enabling environment for the PLWHA and reduce stigma and discrimination | • Advocacy meeting were conducted with different focus group as part of continued effort for enabling environment. |
| Build capacity for comprehe nsive treatment, care and support for positive people | • Manual for management of opportunistic infection<br>• Manual for care and treatment of positive people |

## Implementation Arrangements

*Coordination and stewardship:* NASP is responsible for facilitating overall coordination and support for the national response. NASP has a key role in providing strategic guidance in the formulation of the national response, to coordinate its players, to monitor performance and to evaluate its effectiveness and impact.

*Implementation:* A range of implementing partners is identified in the HNPSP Operational Plan. Targeted interventions will be implemented through self-help groups and local NGOs, where government services are unable to effectively reach out to sex workers, IDU and MSM. Research and evaluation will be contracted out to specialist organizations (e.g. ICDDR, B and FHI for surveillance).

*Contracting:* Contracting of services will implement on several mechanisms. Where possible, procurement will be through competitive tendering (see procurement plan). NASP will pro-actively engage implementing partners by offering an implementation contracts, for example faith based groups, or private sector

*Technical assistance:* The Technical Committee can take initiative or assist in formulation of policies, guidelines, protocols and curricula. UN agencies are other sources of TA. The UN implementation support plan identifies technical lead agencies, e.g. WHO (health sector response), UNICEF (PMTCT, OVC), UNESCO (education sector response), UNFPA (program management NASP). Finally, NASP will call upon international NGOs and specialist organizations provide technical assistance.

## Achievement

**Increase scale and quality of targeted intervention for vulnerable populations:** Targeted intervention expanded among all the vulnerable population. New group such as MSM/Transgender was included in the intervention. Current coverage of vulnerable populations stands as follows:

- Injecting Drug Users - 21534 (54%)
- Brothel Sex Worker - 3817 (96%)
- Street Sex Worker - 41294 (63%)
- Residence & Hotel Sex workers - 25650 (128%)
- Internal Migrant (client of sex workers) - 192895
- Men having Sex with Men - 25964 (17%).
- Transgender - 5833 (39%)

As per latest Sero Surveillance (7th), HIV prevalence among all the vulnerable groups remains <1% except IDUs and STI prevalence shows declining trends over the successive years.

## Strengthen management capacity of all partners for national program activities:

The Operational Plan for 2006-2010 was developed and approved. HIV/AIDS Module for Health Managers: A module developed and approved by TC-NAC. National Harm Reduction Strategy: Developed and approved. National Guidelines for ART: finalized and approved and disseminated. National STI · management guideline: finalized and approved and disseminated Nurses' manual on HIV / AIDS: developed in collaboration with WHO. Resource Center for HIV / AIDS has established at NASP with collection of documents, publications and journals.

## Develop and implement one, unified national monitoring and evaluation system

National M & E Technical Working Group has been formed comprising relevant technical persons from MIS of DGHS, NASP and other key stakeholders. National HIV / AIDS Monitoring and Evaluation frame work was developed as

part of the National Strategic Planning Process for 2004-2010. Monitoring tools (including Quarterly/Biannual Performance Report Forms) to monitor the activities of HAPP developed. HIV/AIDS reporting system by the VCT Centers and Laboratories conducting confirmatory HIV test were developed.

### Create an enabling environment for the PLWHA and reduce stigma and discrimination

Advocacy meeting were conducted with different focus group as part of continued effort for enabling environment.

### Build capacity for comprehensive treatment, care and support for positive people

Modules and guidelines on ART and OI were developed. Trainings were organized for doctors and nurses.

### Build capacity of all implementers and actors in the blood transfusion services

### Integrate private and non profit blood banks in nationally coordinated blood transfusion services.

### Safe Blood Transfusion Program

**1.Name of the Program**: Safe Blood Transfusion Program (SBTP)

**2.Vision and Mission:** To protect the human being through ensuring provision of Safe Blood

**3Strategies:**

a. Establishment of mandatory blood screening facilities in blood transfusion centers for prevention of HIV/AIDS, Hepatitis -B, hepatitis -C, Syphilis and Malaria

b. Promote the recruitment of Voluntary non-remunerated blood donation and elimination of the high-risk blood donors.

c. Implementation of Rational use of blood to ensure adequacy of blood supply for the patients

d. Implementation of Standard Operating Procedures (SOPs) to ensure quality assurance of processing of blood and its component.

e. Establishment of centrally coordinated National Blood Transfusion service.

**4Activities:**

a. Capacity building of Blood transfusion department of Medical College Hospitals, Institutes, Specialized hospital, Combined Military Hospitals, Red Crescent blood centre, District hospitals and other hospitals in Public and private sector through provision of equipment.

b. Supply of regular blood screening kits and blood bags to the blood transfusion centers.

c. Conduct abroad training on blood transfusion for medical doctors and medical technologists.

d. Organize awareness workshop for Internee Doctors of Public and Private Medical College Hospitals on Clinical Practice of Safe Blood Transfusion.

e. Organized workshop for promotion of voluntary blood donation through GO-NGO collaboration for Youth Group.

f. Organize Basic training for Medical Officers and Medical Technologist of different centers under Safe Blood Transfusion Program.

g. Organize VCT training for Medical Officers and Medical Technologist of different centers under Safe Blood Transfusion Program.

h. One day workshop on Blood Transfusion for Nurses/Paramedics.

i. Perform the periodic quality control testing of the blood samples collected from different blood transfusion centers by the Reference Laboratory.

j. Conduct validation of kits and retesting of blood samples refereed to the reference laboratory.

k. Conduct regular monitoring activities to the centers.

## 5Achievement

a. Established 114 full functioning blood transfusion centers by providing required equipments, blood bags, blood screening kits and immuno-haematoligical reagents.

b. Provided required equipments and furniture in remaining 88 centers those will be functioning very soon.

c. Established blood component preparation facilities in 11 blood transfusion centers.

d. Increased Voluntary blood donation from 10% to 30% and paid donation decreased from 70% to 9%.

e. A total of 16,72,519 units of blood screened for TTIs since 2000 (Impact: 104 HIV, 15, 784 HBV, 2418 HCV, 5528 Syphilis and 1103 Malaria reactive cases were detected which could have been transmitted to the patients).

f. A total 15998 unit of blood components such as Red cell concentrate (RCC) 6826 units, Fresh Frozen Plasma (FFP) 5881 units, Platelet concentrate ( PC) 3252 units and Cryo 39 units were supplied from 11 blood transfusion centers

g. Safe Blood Transfusion Rules 2008 has passed.

## 6Future Plan

a. Establishment of National Blood Transfusion Centre.

b. Functioning of remaining 88 blood transfusion centers up to Upazilla level.

# In-Service Training

## Introduction

Over the years, IST mostly focused on providing training to the service providers and their supervisors, enabling them to provide ESP services. In this regard IST has developed National ESP In-service Training Strategy, National Training Standard, Training Monitoring and Evaluation Plan, Training Management Information System and an action plan for decentralizing training. IST has also undertaken different initiatives for further strengthening the training institutes, the trainers by developing a comprehensive training plan and number of curricula on the basis of redefined job description and in the light of reorganization. Different training institutes from central to the upazila levels implemented designated training courses. The Line Director, IST was responsible for planning, coordination and management of training conducted by these training institutes. In addition, a Central Monitoring Team (CMT) consisting of high officials of MOHFW, DGHS, and trainers of the training institutes worked for IST to monitor the quality of training and to provide supportive supervision to the trainers and training coordinators. The Technical Training Unit (TTU) worked as secretariat to LD-IST and coordinated with CMT members. TTU played a vital role in conducting baseline survey on assessment of training facilities, needs assessment and in curriculum development. It also played a major role in institutionalizing IST, starting from national level to District and Upazila level. This institutionalization of IST minimized the cost of training, avoided duplication and strengthened the quality and volume of training.

## Objectives

The in-service training gathered a high momentum during HPSP and it is expected that this momentum should keep continuing through Health, Nutrition and Population Sector Program (HNPSP). Hence, the suggested goal of in-service training is to support different training programs under HNPSP through provision of quality training that will enable the required number of service providers to address the health, nutrition and family welfare needs of the people, especially women, children, the elderly and the poor. This goal has driven towards the following specific objectives-

- Assess training needs of different training programs under HNPSP and develop a training plan according to those needs.
- Facilitate implementation of the training through efficient utilization of the available training resources (financial, manpower and facilities)
- Ensure high quality of training and its impact on performance improvements of those trained, and
- To ensure that the front line providers have sufficient training in relevant areas to achieve the objectives of HNPSP

## Training activities of In-service training (IST) (2007-08)

## (Local Training & Foreign Training)

1. Two days' training on monitoring and supportive supervision for supervisors at upazila level and below (HI, AHI, SI,EPI Tech. , MA etc )
2. Two weeks' training on intensive coronary care for junior doctors working in the CCU / cardiology department of medical colleges
3. Twenty one days' advanced computer training on DMIS for Officers and staff
4. Twenty eight days' basic computer training on operating system,

installation, internet etc. for the persons of MOHFW, DGHS and autonomous institute.

5. Three days' Training on SOP and accreditation procedures for MLSS, aya, attendant, sweeper, cleaner, security, guard, etc. from Primary and secondary level of hospitals.
6. Five days' training on standard operating procedures (SOP) regarding IPD, OPD, OT, emergency, house keeping, record keeping, nursing services, diagnostic services, etc. for service providers of Primary and Secondary Hospitals.
7. Six days' ESD refresher training for field service providers.
8. Six days' training on nutrition for field service providers.
9. Six days' training on Applied forensic Medicine including post mortem for MOs , RMOs and UH&FPO
10. Six days' training on improved financial management for personnel working at division, district, upazila and specialized institutes, TTU and others. Including curriculum Review
11. Breast feeding counseling for health care providers (HAs / Field service providers.) (3 days)
12. TOT for Doctors on advanced ESD clinical skills training course on Child Health care.
13. TOT for Doctors on advanced ESD clinical skills training course on Reproductive Health.
14. TOT on Nutrition Program, Planning & Management.
15. Attachment of Participants at different Department at different Institution.
16. Training on Complementary Feeding.
17. Training on Laboratory Diagnosis of emerging and reemerging diseases
18. Training on primary and secondary prevention and control of rabies.
19. Fifteen Days' Computer Training on DMIS for Health Personnel.
20. Hardware training on computer operation for officer and staff.
21. Advanced training on computer networking windows 2000 (MCSE TRACT) exchange server for officer and staff.
22. Six days' ESP orientation for auxiliary service providers. Including curriculum Review.
23. Six days' training for nurses on violence against women and girls.
24. Two weeks' training on intensive coronary care for staff nurses working in the CCU/cardiology department of medical colleges including curriculum review.
25. Three days' Training of health technologists on biochemical tests for diagnosis of cardiovascular risks and diseases
26. Five days' Training on awareness of primary health care doctors on biochemical parameters for prevention and control of cardiovascular diseases.
27. Two days' Workshop on Medical Biotechnology.
28. Two days' training on management & prevention of substance abuse including alcohol for doctors.
29. Six days training on management & prevention of substance abuse including alcohol for nurses and medical assistants.
30. Three days' training program on primary health care physicians on mental health including curriculum development.
31. Training on primary management & prevention of kidney & urological diseases for primary health care physicians.
32. Training on kidney & urological diseases for nurses working at primary health care level.
33. Training on Kidney & urological diseases for health workers working at primary health care level.

34 Certificate Course on Clinical Epidemiology for three months.

35 Certificate Course on Medical Entomology for three months.

36 Training on Outbreak Investigation for One Week.

37 Quality control/Blood bag/Reagents Training of Good Laboratory Practice (GLP) and Lab management.

38 Overseas Training.

## Process of implementation

As a first priority under HNPSP, the existing Performance Based National In-service Training Strategy and Action Plan for the period 1999-2003 was reviewed and further developed for 2003-2010. Process of implementation is based on National In-service Training Strategy. These are as follows:

- Strengthened TTU capacity to plan, co-ordinate, monitor and evaluate the performance based In-service training;
- Strengthened capacity of the training organizations (physical and human resources) at national, district and upazila level to plan, organize, manage, conduct, and document training, including monitoring and follow-up of trainers and trainees to improve their performance;
- Implemented and monitoring National Training Standards;
- "Unbundled" allocations for In-service training to Line Directors in accordance with defined training needs of their respective programs and decentralize financial management of training.
- Strengthened the process of allocating budget and responsibility for implementation of training-related activities to the available and qualified organizations at different levels according to their facilities and experience to ensure optimum levels of performance and utilization;
- Strengthened the training institutes and organizations to conduct training/performance needs assessments and to prepare curricula, guidelines and resources; and
- Strengthened the Training MIS (TMIS) including linkage with PMIS and evaluation capability at the central, district and upazila levels and evaluate the effects and impact of decentralized training on the improvement of performance and quality of services.
- Strengthened awareness of crosscutting issues such as gender equity, stakeholder participation, pro-poor approach.

## Process of Supervision and Monitoring

The ESP In-service training has two-tier monitoring and follow up system. The first tier is the training monitoring. The staff members from TTU, LTO and DTCC will monitor training at the training sites. The major aspects of training monitoring are:

- Training progress in respect to targets and achievements
- Training management
- Training site preparation
- Logistics and supplies
- Pre and post test results
- Performance standards

## Methods to be used for training monitoring:

- Review training targets and achievements
- Identify implementation problems
- Review pre and post results and course evaluation scores
- Examine checklists used to assess trainee's performance
- Conduct evaluation of training management, training site and clinical

practice site preparation by using checklists mentioned in annex 3, 4 and 5.

The second tier is the follow-up to the trainer's performance in the classroom and in clinical practice sites. DTCC member and DUTT peer Trainer will evaluate the trainers in each course at least once until he/ she achieves competence level. White evaluating trainers they will use two prescribed checklists.

## Follow-up Steps

### The Steps in follow-up of the DUTT are:

- Introductory discussion with trainers to be followed-up,
- Sharing the checklist with them
- Observe performance of trainer in the classroom and in clinical practice site
- Observe the DUTT member in a training lecture or activity
- Share findings of the follow-up with the respective evaluate (trainer)
- Make recommendations for improvement.
- The evaluation score should be sent to DTCC and TTU through TMIS From
- The evaluation checklist will be retained at the Upazila for reference, until the evaluatee is at the "acceptable" level or higher.

### Development of Checklists

The checklists are developed from the latest training literature, findings of the performance/Training Need Assessments (P/TNA), training curriculum and job descriptions. Each question in the checklist is set under a rating scale to measure the level of performance on the specific respective activity. The rating scale and its score provided for each question is defined as follows:

- Worst Performance = 1
- Fair Performance = 2
- Average Performance = 3
- Best Performance = 4

The data collected by the checklists will be analyzed by the checklists will be analyzed by each activity and will be interpreted in a level of scores ranging from 70% to 100%.

- <70% = Unacceptable
- 71% – 84%= Needs improvement in a particular area
- 85 – 90% = Acceptable
- 91 – 100% = Competent / excellent

-Follow-up information will indicate whether the trainer or service provider is performing at the expected level ("acceptable") or s/he requires Further mentoring to improve performance. It also provides a feedback mechanism for revision or adaptation of the training curriculum.

# Performance Achieved in 2008

Training Achievement of In-Service Training (IST), DGHS, Mohakhali, Dhaka for the Fiscal Year of 2007-2008
Local training & Over seas Training

| Sl # | Sl # OP | Name of Activities | No. of Persons trained | |
|---|---|---|---|---|
| | | Local Training | Target | Achievement |
| 1 | 1.02 | 6 days ESP orientation for auxiliary service providers. Including curriculum Review | | |
| 2 | 1.04 | 6 days ESP refresher training for field service providers including curriculum development. | 3200 | 2000 |
| 3 | 1.08 | Curriculum development/Review for Nurses and Paramedics on advanced ESP clinical skills from district, upazila and below on Reproductive health (10 days) | | Done |
| | 1.09 | Curriculum development for Nurses and Paramedics on advanced ESP cli care (6 days) | | Done |
| 5 | 1.11 | from district, upazila and below on Reproductive health (10 days) | 200 | 58 |
| 6 | 2.01 | Breast feeding counseling for health care providers (Doctors and Nurses) ( 6 days ) Including curriculum Review | 400 | 148 |
| 7 | 2.08 | 5 days training on Asthma prevention and management for Medical graduates. Including curriculum Review | 150 | 126 |
| 8 | 2.09 | 5 days training on Cancer awareness, screening and primary detection for doctors including curriculum development. | 50 | 20 |
| 9 | 2.10 | 1 day orientation on cervical and breast cancer awareness for opinion leaders including curriculum and teaching aids development. | 900 | 200 |
| 10 | 2.13 | 6 days training on nutrition for field service providers | 2600 | 1750 |
| 11 | 2.14 | 2 days Workshop on Medical Biotechnology | 200 | 50 |

| Sl # | Sl # OP | Name of Activities | No. of Persons trained | |
|---|---|---|---|---|
| | | Local Training | Target | Achievement |
| 12 | 2.15 | Breast feeding counseling training for health care providers (HAs/Field service providers.) (3 days) | 800 | 275 |
| 13 | 2.16 | 2 weeks training on intensive coronary care for junior doctors working in the CCU / cardiology department of medical colleges including curriculum review. | 122 | 37.00 |
| 14 | 2.17 | 2 weeks training on intensive coronary care for staff nurses working in the CCU/cardiology department of medical colleges including curriculum review. | 143 | 18.00 |
| 15 | 2.18 | 5 days Training on awareness of primary health care doctors on biochemical parameters for prevention and control of cardiovascular diseases | 100 | 47.00 |
| 16 | 2.19 | 3 days Training of health technologists on biochemical tests for diagnosis of cardiovascular risks and diseases | 100 | |
| 17 | 2.20 | 3 days training program on primary health care physicians on mental health including curriculum development | 150 | 60 |
| 18 | 2.21 | 2 days training program on primary health workers on mental health | 328 | 90 |
| 19 | 2.23 | Training on primary management & prevention of kidney & urological diseases for primary health care physicians (6 days). | 70 | 60 |
| 20 | 2.24 | Training on kidney & urological diseases for nurses working at primary health care level (6 days). | 70 | 60 |
| 21 | 2.25 | Training on Kidney & urological diseases for health workers working at primary health care level (6 days). | 200 | 120 |
| 22 | 2.26 | 6 days training for doctors on violence against women and girls. | 240 | 188 |
| 23 | 2.27 | 6 days training for nurses on violence against women and girls. | 240 | 215 |
| 24 | 2.29 | 6 days training on management & prevention of substance abuse including alcohol for doctors. (including curriculum development) | 200 | 25 |
| 25 | 2.30 | 6 days training on management & prevention of substance abuse including alcohol for nurses and medical assistants. (including curriculum development) | 500 | 50 |
| 26 | 2.31 | 2 days orientation on medico legal activities for CS, DCS,RMO etc | 200 | 150 |

| Sl # | Sl # OP | Name of Activities | No. of Persons trained | |
|---|---|---|---|---|
| | | Local Training | Target | Achievement |
| 27 | 2.36 | 6 days training on Applied forensic Medicine including post mortem for MOs , RMOs and UH&FPO (including curriculum development) | 300 | 200 |
| 28 | 2.51 | One year Training Course on Diploma in Anesthesia (DA) and Diploma in Gyne & Obs (DGO) for Doctors | 10 | |
| 29 | 3.01 | 6 days training on improved financial management for personnel working at Division, District, Upazila and Specialized Institutions, TTU and Others Including curriculum Review | 500 | 275 |
| 30 | 3.02 | 15 days basic service management training for doctors. | 200 | 60 |
| 31 | 3.04 | 2 days training on monitoring and supportive supervision for supervisors at upazila level and below (HI, AHI, SI, EPI Tech., MA etc) including curriculum review. | 1800 | 720 |
| 32 | 3.07 | Hardware training on computer operation for officer and staff. | 30 | 30 |
| 33 | 3.08 | Computer programming on MS access and SPSS for officer and staff (including Curriculum review). | 40 | 39 |
| 34 | 3.09 | Computer programming on Graphics Design and webpage design for officer and staff | 24 | 30 |
| 35 | 3.10 | 28 days basic computer training on operating system, installation, internet etc. for the persons of MOHFW, DGHS and autonomous institute. | 200 | 89 |
| 36 | 3.11 | 14 days refresher computer training on operating system, installation, internet etc. for the persons of MOHFW, DGHS and autonomous institute. | 1000 | 900 |
| 37 | 3.12 | 2 days PMIS training for PMIS recording & reporting tools. | 400 | 301 |
| 38 | 3.13 | 2 days training for service statistics related MIS recording & reporting tools. | 400 | 301 |
| 39 | 3.14 | 5 days training on standard operating procedures (SOP) regarding IPD, OPD, OT, emergency, house keeping, record keeping, nursing services, diagnostic services, etc. for service providers of primary, secondary and tertiary Hospitals including monitoring and supervision including curriculum review. | 300 | 180 |

| Sl # | Sl # OP | Name of Activities | No. of Persons trained | |
|---|---|---|---|---|
| | | Local Training | Target | Achievement |
| 40 | 3.15 | 3 days Training on SOP for MLSS, aya, attendant, sweeper, cleaner, security, guard, etc. from primary, secondary and tertiary level hospitals including monitoring and supervision. And development/review of hand out. | 300 | 180 |
| 41 | 3.16 | 15 Days Computer Training on DMIS for Health Personnel from district and Upazila | 240 | 120 |
| 42 | 3.20 | 3 days Women's professional development program for personnel from district/ directorate/ Secretariat level managers. | 50 | 60 |
| 43 | 3.21 | 5 days Mid level management development program for personnel from district level Health managers & UH& FPO. | 100 | 75 |
| 44 | 3.23 | 3 days training on technique of developing training media and maintenance of audiovisual equipment for audiovisual operator, audiovisual projectionist, audiovisual helper and audiovisual technician including curriculum development | 100 | 64 |
| 45 | 3.24 | Reporting and Dissemination of Different activities under In-service training and up date training facility and resource inventory of district /Upazila | | Done |
| 46 | 4.01 | Maintenance and Further Development of Training Management Information System (TMIS) | | Done |
| 47 | 4.03 | 21 days advanced computer training on District management Information System (DMIS). | 420 | 253 |
| 48 | 4.07 | Need assessment of different categories of training | | done |
| 49 | 4.08 | Evaluation of different categories of training activities | | done |
| 50 | 4.09 | 28 days English language course for health personnel | 150 | 125 |
| 51 | 5.11 | Training on updating media and messages in support on HEP for HEO/HE/Other related officers | 120 | 100 |

| Sl # | Sl # OP | Name of Activities | No. of Persons trained | |
|---|---|---|---|---|
| | | Local Training | Target | Achievement |
| 52 | 5.12 | Training on gender issue and poverty alleviation for HEO/HE/Other related officers | 60 | 25 |
| 53 | 5.15 | 1 day training for doctors , medical assistant, MA, Paramedical Health/ Field Staff, Nurses, RMP, Drug distributor, formal and informal leaders etc on filariasis elimination & morbidity control to be held at divisional / district / upazila level with field implementation of HH registration , Mass drug administration and coverage survey . | 500 | 200 |
| 54 | 5.21 | Organization of 2 days joint simulation exercise with BDRCS at most cyclone prone districts. (Multi-sectoral approach) on EPR | 100 | 50 |
| 55 | 5.22 | Conduct vulnerability and Capacity Assessment at 10 (ten) selected hazard prone areas on EPR. | 75 | 100 |
| 56 | 5.24 | 2 days training for field staff on Disaster Mitigation | 75 | 90 |
| 57 | 5.25 | two days orientation course for Disaster Focal Points on EPR | | |
| 58 | 5.27 | Training course on Mass casualty management for hospital level staffs. | 32 | 40 |
| 59 | 5.36 | 2 days Orientation on service statistics of MO, MA, MT, HI, AHI and HA | 125 | 150 |
| 60 | 5.40 | HEP Training for the mid -level managers (5 days) Health Education officers/ Health Educator | 60 | 28 |
| 61 | 5.41 | Program/ Administrative Management Training for the HEP Focal Points. (Do) Health Education officers/ Health Educator | 60 | 38 |
| | | **BCPS** | | |
| 62 | | TOT Program | 240 | 199 |
| 63 | | Orientation Training program of Participants | 800 | 404 |
| 64 | | Attachment of Participants at different Department at different Institution. | 200 | 186 |
| 65 | | Workshop, Seminar etc. | 600 | |
| 66 | | Workshop on Accreditation and assessment Procedure, Dissertation writing, Information technology & Communication Skill development, Curriculumn development, Research methodology, OSPE & OSCE, Examination and assessment procedure for 40 subject | 120 | 141 |
| | | **IEDCR** | | |
| 67 | | Training on Outbreak Investigation for One Week | 480 | 176 |

| Sl # | Sl # OP | Name of Activities | No. of Persons trained | |
|---|---|---|---|---|
| | | Local Training | Target | Achievement |
| 68 | | Training on Laboratory Diagnosis of emerging and reemerging diseases for one week | 300 | 112 |
| 69 | | Certificate Course on Clinical Epidemiology for three months | 28 | 15 |
| | | **IPH** | | |
| 70 | | Microbiological Lab Training of the Lab personnel | 250 | 304 |
| | | **NIPSOM** | | |
| 71 | | Continuation of ongoing Training on Epidemiology and Bio-Statistics using SPSS with Cambridge University (Data analysis) and linkage with NIPSOM | 4 | 2 |
| | | **ICMH** | | |
| 72 | | TOT for Doctors on advanced ESD clinical skills training course on Reproductive Health | 50 | 27 |
| 73 | | TOT for Doctors on advanced ESD clinical skills training course on Child Health care | 50 | 23 |
| 74 | | Training on Complementary Feeding | 50 | 27 |
| 75 | | Breastfeeding counseling for health care providers | 50 | 12 |
| 76 | | TOT on Nutrition Program, Planning & Mangement | 50 | 12 |
| 77 | | Breastfeeding counseling for health care providers | 100 | 11 |
| 78 | | **Overseas Training** | 151 | 129 |
| **Total** | | | **22757** | **12500** |

# Pre-Service Education

## Introduction

Health sector is not only labor intensive but it requires a large variety of skilled health manpower to support and manage a wide range of health services. Bangladesh has a large number of educational and training institutes for producing health professionals in various areas. They also provide a congenial environment to those who are interested in conducting research activities. Although most of the educational and training institutes are located in Dhaka, many, particularly those institutes that provide undergraduate education and basic paramedical training are situated in different cities and districts of the country. While the number of physician graduating each year may be just adequate in terms of country's present need, output of the auxiliary personnel, i.e., nurses and paramedics is not. Some substantial progress has been achieved in the field of medical education. The annual intake and output of 14 Medical colleges in the public sector are about 2060 and 1500 respectively. The annual intake and output of dental colleges are about 205 and 200 respectively. It may be noted that the number of female graduates has been steadily increasing. The annual intake and output of technology institutes are 1010 and on average output is 1000 but within short period the number will increase to about 5000 and 4400 per year which will expedite our health workforce onwards. For the career planning of Medical Technologists B.Sc. in Laboratory Science has been introduced in 08 Government & Non-Government institutes along with Masters course in Laboratory Science in two. In the non-Government side total input 2390 and output is 1185. Pre-service Education has also been strengthened at the Postgraduate education in different Medical Colleges and Institutes by providing Research Grants and supply the Technical Aids, Multimedia and others. The Operational Plan of Pre-service Education is mainly concerned for the education of medical undergraduate and health technology students. By producing skilled health manpower according to the recommendation of the 'Human Resource Strategy' of the MOHFW it will be possible to contribute to the poverty alleviation target of PRSP by improving the health status of the people.

## Background

Pre-service education (PSE), as one of the important functional areas of HRD under HNPSP refers to producing appropriately skilled personnel to meet sector needs. Under HNPSP, ongoing efforts will be continued to further improve the quality of medical education and education of paramedics and other auxiliary personnel and ensure its appropriateness to community needs. Further to it, the curricula of all these basic-education needs regular updating in terms of actual necessity. It also includes the definition and enforcement of training students as well as continues assessment and reassessment of performance based training needs with respect to basic as well as Pre-Service Education. Appropriate monitoring and evaluation of the proper implementation

of the curriculum will be institutionalized and a quality assurance scheme in education and training will be established.

## Component programs

- Residential Field Side Training for 4th-year Medical Students.
- Quality Assurance Scheme for Public and Private Medical Colleges.
- Improvement of Medical Education: Medical Education Units & Medical Skill Centers at Medical Colleges.
- Establishment of Teaching Morgue at Chittagong Medical College.
- Strengthening of Postgraduate Medical Education in 14 Medical Colleges and other Postgraduate Institutes and improvement of Libraries.
- Establishment of New 5 Medical Colleges, Medical Assistants Training Schools & Institutes of Health Technology.
- Establishment of Monitoring and Evaluation Mechanism for HRD.
- Revision of Medical, Dental, Paramedical and Other Curricula.
- Strengthening the CME and National Health Library & Documentation Center.
- English Language Training (ELT) for Medical & Dental Students.
- Establishment of New 5 Institutes of Health Technology. (Khulna, Mymensingh, Sylhet, Barisal, Chittagong), Medical Colleges, Postgraduate institutes, Dental Colleges, IHT and MATS
- Procurement of Machinery, Equipment, Furniture- Fixture & Transport Vehicles for Post-graduate Medical Institutes in 14 Medical Colleges/ Dhaka Dental College and different PostGraduate Institutes and Library facilities.
- Strengthening the Research Activities for Post-Graduate Students in different Medical Colleges/ Institutes.
- Publication of Annual report containing the Academic performance and Hospital records of Medical College Hospital.
- Improvement of museum in Anatomy and Pathology departments in different Medical colleges.
- Development of Medical Biotechnology in Bangladesh.
- Establishment of Bangladesh College of Physiotherapy in Dhaka.

## Objectives

- To enhance national capacity for pre-service education and training management
- To improve the quality of pre-service education in both professional and technical aspect.
- To further modify and revise the strategies in the medical education system to meet the changing needs of the health care delivery system.

## Achievement

- Revised field side training of 1560 4th year students in 14 Medical Colleges to increase their working capacity in field works.
- Purchase of Books, Computers, Equipments & Furniture for expansion of Medical Education units in 14 Medical Colleges.
- In New (5+1) =6 Medical Colleges has been equipped by procuring computers, Equipments, Furniture, Books & Chemicals.

- Computer Training has been given to 180 officers & staffs to increase their efficiency in program operation.
- Every year 2,350 first year students of 14 Medical Colleges, Dhaka Dental College & Dental Units of Chittagong & Rajshshi Medical Colleges have been trained in English Language (ELT) to increase their capacity in English Language.
- One new Government. Medical College named Shahid Shuhrowardi Medical College in Shere Bangla Nagar, Dhaka was established with full support from Pre-Service Education by continuous financing for required electro-medical equipments, instruments, furniture, books & journals, chemical re-agents and for different programs for quality education of students and development of teaching skill of the teachers.
- One new Government IHT has been established at Bogra, where 357 students have been admitted; construction works have been started in 6 IHTs in 06 divisional head quarters & 39 non Government iniatiatives.

**Future plans**

- Procurement of 24 cars & 38 Microbuses for 14 Medical Colleges, 3 IHTs & 07 MATS.
- Procurement of Computers, Furniture, Equipments, Books & Chemicals for further expansion and strengthening of programs.
- In addition proposal for purchase of 62 vehicles for use of students in Residential Field Side Training (RFST) program has been made.

# Procurement, Logistics and Supplies Management

## Introduction

As one of the important support services, CMSD's relevance is significantly assigned in achieving health related Millennium Development Goals as well as GOB's Poverty Reduction Strategy through extending its support to the Service Delivery Programs, which are expected to re-invigorate their program efforts directed at improved maternal health, reduced child mortality, reduced fertility and disease control.

The MDG addresses the health, nutrition and population related targets, focusing upon in the IPRSP, as to (i) reduce infant mortality and under-five mortality rates by 65% and eliminate gender disparity in child mortality; (ii) reduce the proportion of malnourished children by 50% and eliminate the gender disparity in child malnutrition; (iii) reduce maternal mortality by 75%; and (iv) ensure availability of reproductive health services to all.

The Service Delivery Programs, with the assigned targets for 2006 in line with MDG based on IPRSP, outlines in their OPs interlay with required inputs of logistics during the program period delineating support from CMSD. In relevance to that and on formal requests from concerned Line Directors, CMSD attempts to put forward this blueprint, the operational plan, in achieving the targets as delineated in PIP.

## Logistics Management under HPSP

Under the Health and Population Sector Program (HPSP), the Government of Bangladesh has combined logistics management systems of two separate directorates (Health Services and Family Planning) programs in a single system to ensure unified arrangements for forecasting, procurement, storage, distribution and transportation for delivering Essential Services Package (ESP). This unification was planned to reduce cost through bulk procurement, common storage, combined transportation and controlling system loss at different points; to improve quality of services in terms of storage, procurement and distribution; and reduce time to meet the requirements of service providers. The present structure has three tires-CMSD, DRS or CS Stores and Upazila Stores. The pre-HPSP system of procurement by the individual project director and DGHS and DGFP was replaced by a system of centralized procurement of goods. The major procurement responsibility has been shifted to CMSD. The CMSD provides logistic supports for other ESP, support services and hospital services. On the other hand, Director (Logistics) of DFP in liaison with the Director PHC and Director MCH services does procurement of logistics for ESP (RH). The CMSD has the responsibility to supply necessary materials for ESP to the DRS or CS Stores at district levels. The Upazila Stores receive supplies from district level facilities and have the responsibilities to supply the same to UHFWC, CC and MCWC. In addition to this, Civil Surgeons have been maintaining their authority to buy MSR for the district hospitals.

## Related HNPSP strategy

The present logistics system is characterized by centralized procurements with some decentralized provisions. Government aims to unbundle the procurement packages and delegate increased authority for procurement to the level of Line Directors and institutions. Each LD will procure his/her own items reflected in the OP. Procurement will also be handled at the district level, with the CS/DDFP in charge of the district given authority to procure

those hospital commodities/materials which are locally available and which are needed for the day-to-day operation of the hospitals. CMSD and Family Planning Logistics and Supply Unit will provide technical assistance, including training, to other LDs and the district level authorities to speed up their procurement actions. The equipment/materials available within the country should be procured locally. Procurement of goods and equipment will be classified and packaged based on local availability and other criteria. CMSD/FP Logistics will procure some sophisticated equipment (e.g., x-ray machines, dialysis machines, Family Planning commodities etc.). The ceiling of International Competitive Bidding (ICB) and Local Competitive Bidding (LCB) will be raised at the time of appraisal so that unnecessary delay can be avoided. Timing of procurement of medical and hospital equipment will be synchronized with the construction schedule of the hospitals, so that hospitals do not remain non-functional due to lack of equipment after the construction is completed. The recruitment of manpower will also be phased in line with the above objectives. In the process of procurement of goods, works and services, the government guidelines of the period will be followed. Unbundling procurement package, decentralizing procurement, delegation of more financial powers will be certainly increase absorption capacity during HNPSP.

The Central Procurement Technical Unit (CPTU) of the Planning Commission has reformed the whole public sector procurement system with the assistance from the World Bank and prepared a complete guideline for it. The guidelines not only state the procedures but also contain the various forms: standard requests for proposals, standard bidding documents and other standard documents that would be used to procure in the public sector. The guideline is equally acceptable both to the Government and the Development Partners. The guidelines are approved by the competent authority and came into effect from 2003-2004. Procurement & Storage under the Directorate of Health Services more commonly known as Central Medical Stores Depot (CMSD), the name of its Dhaka headquarters and Central Warehouse was established with the objective of timely procurement and supply of the necessary drugs, equipment and supplies to the end-users. The overly centralized procurement procedures, even for commonly used, locally available goods, created, however, bottlenecks for HPSP implementation. Procurement has received major focus in the PIP of HPSP. Several changes have been identified and proposed in the Program Implementation Plan (PIP) of HPSP in Order to improve efficiency of logistical management in the sector. The separate logistical management systems of health services and family planning services prior to HPSP were replaced by an integrated logistical system including unified arrangements for forecasting, procurement, storage distribution and transportation. It acknowledges the requirement for augmented logistical management capabilities to optimize availability of commodities at all levels in the integrated distribution system for successful implementation of HPSP. The review of the planning documents has suggested that procurement was considered as a strategic activity for the health services. Procurement was planned as sourcing function rather than merely purchasing. Logistics Management prior to HPSP: prior to HPSP, the Directorate of Health Services (DGHS) and the Directorate of Family Planning (DFP) had two separate logistics system under the Ministry of Health and Family Welfare (MOH&FW). The systems were in force parallel to each other. The health logistics system had four tiers – Central Medical Stores Depot (CMSD), Medical Sub-Depots (MSD), District Reserve Stores (DRS) or Civil Surgeon's

(CS) Store and UHCs store. Similarly, the DFP maintained another system with four tires. In addition to these two parallel logistical management system, Medical college Hospitals and other specialized hospitals had separate logistical management system.

### Objectives of the OP

- To Improve the Operational Capability of CMSD
- To Maintain utility services of CMSD
- To procure goods of all Line Directors in time.
- To ensure proper handling of goods
- To ensure proper storage of the procured goods
- To ensure proper distribution of the goods
- To keep Warehouse equipment, Office equipment, Vehicles, etc. of CMSD operational so as to perform adequate services
- To keep Electro-medical Equipment of Government Hospitals (District & Upazila Level) operational by repairing as & when reported.

### Activities of the OP

- Improve the operational capability of CMSD including Port Clearance Office, Chittagong & Maintain office Utility Services.
- Enhance/Build Capacity on Procurement, Storage, Repair & Maintenance , Office Management & Computer
- Conduct Procurement of Goods Expand the Storage capacity of CMSD for accommodating Goods.
- Conduct periodic maintenance & repair of vehicles, equips of CMSD as and when required.
- Govt. Hospitals, except those of Dhaka city, as and when required.

## Management Structure and Operational Plan Components

| | |
|---|---|
| **a) Line Director:** | Line Director, Procurement, Logistics and Supplies Management & Director, Stores & Supplies. |
| **b) Reporting to:** | Secretary, Ministry of Health & Family Welfare through Director General, Directorate of Health Services, DGHS. |

## c) OP Components with their Program Managers

| Component | | Program Manager |
|---|---|---|
| Logistics Management | : | Program Manager, Logistics Management [*Deputy Director (CMSD)*] |
| Procure | : | Program Manager, Procurement & Clearance [*Deputy Director (P & C)*] |
| Storage & Distribution | : | Program Manager, Logistics Management [*Deputy Director (CMSD)*] |
| Repair & Maintenance | : | Program Manager, Logistics Management [*Deputy Director (CMSD)*] |

## Basic information of the OP / Project: CMSD

| | | | | | | |
|---|---|---|---|---|---|---|
| 1. | Name of the Operational Plan (OP) | : | Procurement, Logistics & Supplies Management | | | |
| 2. | Sub -Sector of the Program | : | Health | | | |
| 3. | Name of the Program | : | Health, Nutrition and Population Sector Program (HNPSP) | | | |
| 4 | Phone number<br>FAX<br>E-mail | | 880 -2-8115479<br>880 -2-9126547<br>cmsd@dekko.net.bd | | | |
| 5. | Name of the Sponsoring Ministry | : | Ministry of Health and Family Welfare. | | | |
| 6. | Name of the Implementing Agency | : | Line Director, PLSM & Direc tor Stores and Supplies, CMSD, DGHS. | | | |
| 7. | Implementation Period | | | | | |
| | a) Commencement | : | 1 July 2003 | | | |
| | b) Completion | : | 30 June 2011 | | | |
| 8. | Approved Cost Estimate of the OP (Development) ( in million taka) (2003 -2006) | : | **Total** | **GOB** | **PA** | **Sources of PA** |
| | | | 735.51 | 678.05 | 57.46 | Pool Fund |
| 9. | 1st revision (approved) Cost of the OP 2003 -2010 (in million taka) | : | **Total** | **GOB** | **PA** | **Sources of PA** |
| | | | 1,740.93 | 1,686.53 | 54.40 | Pool Fund |
| 10. | 2nd revision (Proposed) Cost of the OP 2003 -2010 (in million taka) | : | **Total** | **GO** B | **PA** | **Sources of PA** |
| | | | 3,454.50 | 3,142.50 | 312.00 | Pool Fund |

## Achievement in 2006-2007 and 2007-2008 and target for 2008-2010

| Description | 2006 – 07 | | 2007-08 | | Target: 2008-10 | |
|---|---|---|---|---|---|---|
| | Physical Qty. | Financial (Tk. in Lakh) | Physical Qty. | Financial (Tk. in Lakh) | Physical Qty. | Financial (Tk. in Lakh) |
| **Physical works** | | | | | | |
| Equipment & Accessories | Photocopier, Laminating Machine, computer, Furniture etc. are procured. | 28.00 | Photocopier, Laminating Machine, computer, Furniture etc. are procured. | 26.00 | Photocopier, Laminating Machine, computer, Furniture etc. are procured. | 14.00 |
| Computers Accessories | | 4.00 | | 27.00 | | 16.00 |
| Software | | - | | 6.00 | | 13.00 |
| Furniture & Fixture | | 2.00 | | 2.00 | | 4.00 |
| Tele communication | | 0.50 | | 0.50 | | 1.00 |
| Others | | 33.00 | | 51.50 | | 107.00 |
| Sub-total (a) | | **67.50** | | 113.00 | | 155.00 |
| **Non-Physical Works** | | | | | | |
| Supplies & Services | Ex. Factory VAT, Bank Charge for LC, C&F agents' commission transport charge paid. | 545.15 | Ex. Factory VAT, Bank Charge for LC, C&F agents' commission transport charge paid. | 940.00 | Ex. Factory VAT, Bank Charge for LC, C&F agents' commission transport charge paid. | 2,050.00 |
| Storage & Distribution | Printing done Logistics Management System developed | 15.00 | Printing done Logistics Management System developed | 5.00 | Printing done Logistics Management System developed | 160.00 |
| Repair & Maintenance | Repairable Motor Vehicle, furniture & Computer repaired | 24.00 | Repairable Motor Vehicle, furniture & Computer repaired | 39.60 | Repairable Motor Vehicle, furniture & Computer repaired | 86.30 |
| Import Tax & Vat | All the goods Cleared from the Port in time. | 4,360.00 | All the goods Cleared from the Port in time. | 3,500.00 | All the goods Cleared from the Port in time. | 8,000.00 |
| **Subtotal (b)** | | 4,944.15 | | 4,484.60 | | 10,296.30 |
| **Total (a+b) (taka in lakh)** | | 5,011.65 | | 4,597.60 | | 10,451.30 |
| **Total (a+b) (taka in millions)** | | 501.17 | | 459.76 | | **1,045.13** |

# Research and Development (Health)

## Introduction

The primary goal of a national health system is to generate and communicate knowledge that informs the national health program implementers to contribute to equitable health development and promotion of the country. Health research is essential to improve the design of health interventions, policies and service delivery. Research will, therefore, be an integral part of the Health, Nutrition, and Population Sector Program (HNPSP) and will play an important role with regard to evidence based decision-making, facilitation of innovation, supporting adjustments in sectoral resource and in support of policy development for HNPSP.

Within the overall development policy framework of the Government of Bangladesh, the goal of health, nutrition and population (HNP) sector is to achieve sustainable improvement in health, nutrition and reproductive health, including family planning, status of the people, particularly of vulnerable groups, including women, children, the elderly, and the poor with the ultimate aim of their economic emancipation and physical, social, mental and spiritual well being and thus contribute to the poverty reduction strategy. The primary goal of a national health system is to generate and communicate knowledge that informs the national health program implementers to contribute to equitable health development of the country. Health research is essential to improve the design of health interventions, policies and service delivery. For any kind of program to be successful and sustainable it is important to know how this can be achieved and research findings are the answer, to many questions that arise and help take calculated, effective decisions.

## Background

The HNPSP has been formulated in line with the National Health, Nutrition and Population Policies, PRSP and MDGs. The Research and Development program of HNPSP aims to contribute towards accomplishment of national goals and targets set in PRSP and is expected to have significant contribution towards achievement of health related Millennium Development Goals (MDGs).

The researches undertaken by the Research and Development Unit of DGHS is based on a principle that identifies priority research areas and research organizations in line with the objectives of HNPSP. It includes basic medical and bio-medical research, demographic, epidemiological, operational, and policy research, clinical research including research on reproductive health, impact and cost-effectiveness studies, behavioral and health systems research.

Research area prioritization has led to, research findings that depict the magnitude of the health problems of the vulnerable section of the population (women, children and the poor), e.g., prevalence and incidence of diseases, disability, malnutrition and mortality Researches conducted also have helped in identifying the causes of health problems of women and children. Implementation of the research findings has helped to move in the right path in the endeavor to achieve the Millennium Development Goals and thereby contributing to the Poverty Reduction Strategy.

Again, to assess program impact it is necessary to do researches so that their findings can help take measures to combat the shortfalls. Research has

therefore played meaningful and pertinent role in identifying the key measures required for accelerating the HNPSP so that it becomes more responsive to client needs, more efficient in the delivery of services and more effective in providing key services to the poor people and help in every sphere to achieve the MDG goals.

In the Financial Years 2006-2007 and 2007-2008, the Research & Development Unit at DGHS has funded researches most of which are researches on nutrition, poverty reduction, gender equity, child and maternal health, tuberculosis and malaria. Some of the researches are on going while others have come out with important findings, which will make positive contributions to program improvement, effectiveness and sustainability and in turn pave a way to achieve the MDGs.

These research findings have served and will serve to guide policy development, setting program priorities, and improvements of service delivery; these are also essential for monitoring program achievements and assessing program effect and impact. In the future increased emphasis will be given to researches that have direct implications for health interventions and are designed to improve the quality of care and health status of the people and to researches that relate to spending patterns on disease burdens. Research on service delivery and professional development will improve health care management, e.g., operational research, program evaluation and review technique, quality assurance, cost-effectiveness and cost benefit ratio, etc.

## Objectives

- Research Capacity Building
- Research Funding
- Dissemination of research results

## Justification of each program activity

### Research Capacity Building

This will encompass strengthening capacity of individuals and institutions, implementation of research studies on priority areas, coordination and collaboration between researchers and research institutions

### Research Funding

The potential relevance and impact of research funded under HNPSP will rest to a large extent upon effective information exchange among health research organizations and upon appropriate prioritization, ensuring research funds are allocated in priority areas of HNPSP.

### Dissemination of research results

Research results need to be disseminated so that the findings can be used for policy strategy & plan formulation in the Health Sector. This dissemination will allow effective utilization of research findings.

## Achievements (in quantitative and Qualitative terms)

The Research & Development Unit at DGHS has made significant progress in the Financial Year 2007-2008. The achievements are enumerated below:

- Formation of a ten member Research Unit with 3 Advisors to the Unit.
- Development of a Research Guideline, which reflects on all research related activities with special focus on research area prioritization and funding process and thereby aims to streamline researches in line with the objectives of HNPSP.
- Developed draft research protocol format.
- Conduction of ten training workshops on research methodology in collaboration with BMRC, thus

strengthening research capacity of various institutions and individuals.

- Conduction of training workshops for capacity building of Research Unit members.
- Held consultative meetings on various research related activities.
- Funded almost 200 researches, which have relevance with MDG and PRSP.

Out of these 40 are complete and the rest are nearing completion.

- Supplied books worth Tk. 37.88 lacs to seven medical colleges.
- Published journals and bulletins in collaboration with BMRC
- Held dissemination workshop on research findings.

# Management Information System (Health)

## OBJECTIVES

The main objectives of the OP were to generate information for monitoring availability and utilization of Essential Services Package (ESP), few other selected health services and also services delivered at health facilities. It was also stated to provide information on progress in achievements of health related Millennium Development Goals (MDGs) on indicators for maternal mortality, child mortality and disease control. It was planned to establish computer network (LAN and WAN) and personnel management information system (PIMS) and gradually logistic management information system and then financial management information system.

The HNPSP has, amongst others, OPs on Essential Service Delivery, Human Resources Management, Pre-service Education, Improved Hospital Services Management, Communicable Disease Control, and Non-communicable Disease Control and Public Health Interventions. MIS (health) aimed to contribute to all of these OPs through stating the achievements in terms of certain statistical information.

## PRIORITY OBJECTIVES

1. Review and redesign of recording and reporting tools, PDS for all hospitals, institutions
2. Printing and distribution of recording and reporting tools
3. Conduction of Geographical Reconnaissance (GR) for population based demographic information
4. Development of data base and software
5. Collection, analysis and reporting service statistics (health facility statistics) and statistics on health personnel who served under DGHS
6. Training of concerned officers and staffs
7. Procurement of computer server, computer, furniture, telemedicine equipment, accessories
8. Establishment of LAN and WAN between key points of DGHS and ministry
9. Web page development and updating
10. Electronic transmission of information
11. Setting up telemedicine system in the key institutions and
12. Publishing Health Bulletin, MIS newsletter and other reports.

## SPECIFIC OBJECTIVES OF THE OP (2003-2008)

1. To establish service MIS to ensure quality service in different facilities
2. To establish Personnel Management Information System (PMIS)
3. To collect information on useful indicators for monitoring and evaluation of health systems at the lowest level to the national level through generation of MIS data
4. To review, develop, print and distribute of standardized recording and reporting tools
5. To establish LAN & WAN among the facilities
6. To establish telemedicine systems among the selected facilities
7. To ensure human resource development and recommendation for future action on program management
8. To ensure dissemination of information through publication and website

9.To establish GIS with the use of health data

## PRIORITY ACTIVITIES (2003-2008)

- Collection, analysis and reporting service statistics (health facility statistics)
- Gradual introduction of ICD-10 in different hospitals
- Development of software
- Development of database
- Collection, analysis and reporting health personnel statistics for DGHS
- Conduction of Geographical Reconnaissance (GR) for population based demographic information
- Collection, analysis and reporting service statistics (health facility statistics)
- Review and redesign of recording and reporting tools for all hospitals, institutions
- Printing and distribution of recording and reporting tools
- Review and redesign of Personal Data Sheets (PDS)
- Procurement of computer servers, computers, furniture, accessories
- Establishment and maintenance of LAN and WAN between key points of health facilities, health sub-systems under DGHS and ministry
- Setting up telemedicine system with video conferencing in the key institutions
- Procurement of telemedicine equipment
- Training of concerned officers and staffs on MIS (health) issues
- Publishing Health Bulletin, MIS newsletter and other reports
- Web page development for DGHS and updating
- Electronic transmission of information through providing email system
- Procurement of electronic equipment
- Mapping of health conditions, geo-demographic and socioeconomic characteristics in Geographic Information System

## PROGRESS (2003-2008)

The FY 2007-2008 of this OP saw some leaps with regard to innovation and new dimensions. However, these started to happen during the last part of the fiscal. Results will be full blown in 2008-2009. The FY 2007-2008 progress will be described elsewhere in this report. Following list shows the progress in the period from 2003 to 2008:

- By end of June 2008, 80% of upazila hospitals, 85% of district hospitals and 50% of tertiary hospitals/medical college hospitals in public sector provided health service information
- Thirty seven major diseases covered in health facility statistics
- Statistics on number of patients in OPD, IPD and emergency, age and sex disaggregated data, average length of stay, bed occupancy rates, mortality rates, morbidity profiles prepared
- ICD-10 used in morbidity and mortality profile preparation
- Six software developed and in use
- PMIS database system developed and being updated frequently
- Personal datasheet of Class I officers serving under DGHS are being maintained in PMIS
- Lists for seniority, retirement, staffing position, vacancy, gradation, etc. are being prepared
- GR conducted each year covering each rural household of Bangladesh
- Process of GR reviewed and plan made for future GR

- Facility statistics, viz. number of beds, logistics, vacancy statement, health workforce development, and other health service statistics collected and report prepared and distributed
- Twenty nine types of different recording and reporting forms and associated registers reviewed and redesigned
- Redesigned forms and registers printed and distributed across health facilities
- PDS reviewed, redesigned, printed and distributed
- Eighteen computer servers procured
- 687 computers, 575 chairs and 450 tables procured and distributed
- LANs have been established in DGHS, MOHFW, NICVD, Shahid Shuhrowardi Medical College Hospital
- WAN connections have been established with MOHFW, all medical colleges/institutes, divisional directors' offices, and civil surgeons' offices
- Due to non-response of the vendors against tender calls, CMSD could not procure telemedicine equipment; In FY 2008-09, telemedicine equipment may be bought and telemedicine system can be possible to set up
- Ten different types of training held; 10,538 officers and staffs trained
- Health Bulletins published in year 2003, year 2007 and year 2008; Half yearly MIS newsletters on Emergency Obstetric Care published; Year Book 2007 covering HNPSP progress of DGHS published; PMIS Report published; GR Report (2004) published
- Website developed and updated. Now it is a dynamic and vibrant web portal
- Email communication of information is being done between MIS and MOHFW, medical colleges & hospitals, other line directors, divisional directors and civil surgeons
- GIS mapping will be piloted in 2009.

## COMPONENET-WISE ACTIVITIES AND ACHIEVEMENTS IN FY 2007-2008

| Component | Activity | Achievement |
|---|---|---|
| Service MIS | % of tertiary hospitals provided data | 50% |
| | % of district hospitals provided data | 85% |
| | % of upazila hospitals provided data | 80% |
| | Data on service MIS analyzed and report prepared | Yes |
| | No. of software developed for service MIS | 6 |
| Personnel MIS | PMIS database updated | Yes |
| | PDS of class I officers under DGHS maintained | Yes |
| | Data of health personnel & staff analyzed, report prepared and distributed | Yes |
| Information collection on useful health system indicators | Geographical reconnaissance for population information conducted | Yes |
| | Process of geographical reconnaissance reviewed and plan for future GR prepared | Yes |
| | Facility statistics collected, analyzed and report published | Yes |
| Standardized recording and reporting tools | Types of tools reviewed and resigned | 29 |
| | Printing and distribution of tools among facilities | Done |
| Development of ICT network | Computers procured and distributed (No.) | 250 |
| | Computer servers procured and distributed (No.) | 8 |
| | LAN and WAN established in specified places | Yes |
| Development of human resource | No. Of persons given 2 days' training PMIS | 300 |
| | No. Of persons given 1 day's training on SSMIS | 102 |
| | No. Of persons given training on use of computer | 407 |
| Information and communication | Health Bulletin 2007 and 2008 published | Yes |
| | Year book 2007 published | Yes |
| | Newsletters on Emergency Obstetric Care published | Yes |
| | PMIS report published and distributed | Yes |
| | Web site maintained and developed to dynamic web portal | Yes |
| | Use of emails expanded and encouraged | Yes |

## ACTIVITIES NOT PERFORMED AS PLANNED IN FY 2007-2008

Procurement, supply, installation and maintenance telemedicine equipments in key institutions

Due to non-response of the vendors against tender calls, CMSD could not procure telemedicine equipment. It has been planned to procure the same in subsequent fiscal(s).

Procurement of 2 motor vehicles

CMSD could not procure. Procurement will be done in FY2008-2009.

## ACTIONS INITIATED IN 2007-08 OR SUBSEQUENTLY IN 2008-2009

1. Computerization and Internet connections of all health facilities as low as up to upazila level

   Computerization was done as a first step towards decentralization of data entry job to data sources and avoids duplication of data entry at each point of hierarchy. This was followed by provision of Internet connectivity. Wireless EDGE modems were provided to about 800 data points as low as up to upazila levels with unlimited Internet connectivity option. This has created environment of e-learning through Internet. Significant improvement in data communication, data quality and timeliness has been observed.

2. Establishment of web-based Internet server at MIS (health)

   Up-gradation of LAN server to Internet based web server to enable remote data sources directly feed and retrieve health data interactively or through batch files. This served following purposes: hosting web portal of MIS health; establishing full control on data; making the Internet bandwidth more cost-effective; increasing number of servers for data security and uninterrupted service; servers to serve dual purposes, viz., LAN server and Internet server.

3. Launch of innovative participatory dynamic web portal

   It was done to make for DGHS a vibrant one-stop information sharing centre where all stakeholders can put content through own control and information gets accessible throughout the world. The static web site of DGHS has been converted to dynamic web portal and hosted in own server. All health stakeholders (LDs, institutes, hospitals, health NGOs) have been given opportunity to take user name and password to put and edit content interactively. The interface is easy and user friendly. New content is uploaded almost every day.

4. Launch of online Personal Data Sheet

   The purpose this activity is to enable the health personnel update their own job related data sheet hassle free by themselves and to enable MIS (health) staffs to concentrate on other important jobs being free from filling up data sheets. This new system will expand scope of PDS to all classes of health staffs, to all MOHFW personnel and staffs and to private health workforce. To launch this service, a web based software database was created and hosted in own server; the old offline database was migrated to new online database; newspaper advertisement was given asking DGHS doctors to update individual PDS online. Significant progress was achieved after Internet connectivity was established in all related data points.

5. Internet mail server under own domain

   This activity opened avenue for giving all health offices under DGHS email addresses under own domain, viz. dg@dghs.gov.bd; keraniganj@uhfpo.dghs.gov.bd. A

robust email server with own domain name and accessible throughout the world has been created free of charge in collaboration with Google

6. Establishment of MIS Data Centre

MIS (health) staff had to perform data entry jobs in tiny, unhealthy, poorly ventilated and poorly illuminated space. New comfortable space has been created as MIS data centre (data collection, analysis, report generation) converting a corridor into room with Internet connectivity, good illumination, 24 hour power back up, air conditioning, toilet and drinking water provisions. The data centre is contributing to improving data collection system.

7. Establishment of MIS IT Lab

A MIS IT Lab has been established to enable data management staffs at MIS (health) and all over health services to quickly acquire ICT and data analysis skills. On request, PWD (civil) renovated earlier data entry room into IT Lab and MIS Server room. New computer tables have been procured. Computers and computer chairs have been arranged under redistribution plan

8. Establishment of MIS Resource Centre

To create an efficient place for quick communication and information dissemination, a room of MIS office has been re-designated as MIS resource centre where fax, phone, email, internet, computer, scanner, colour printer, etc. backed by trained communication persons have been placed

9. Placement of generator to ensure 24 hour power backup

To ensure 24 hour run time of Internet servers and keep staffs of MIS at work with all computers, printers and equipment in operation in the face frequent power failure during hot seasons, a 60 KW generator sitting idle in Panchagar district hospital was brought to MIS (health); physical structure to house the generator was built with own arrangement and the generator was installed with help of PWD (electrical).

10. Introduction of Electronic Office Attendance System

To improve staff punctuality through electronically monitor and control staff attendance of MIS (health), an electronic office attendance system was placed in MIS office. Staff members were issued machine readable ID cards. Deviations are informed back to concerned staff members for improving punctuality.

11. Revision of OP

MIS (health) OP 2003-2010 appeared unsuitable for achieving goals of MIS (health) properly. Therefore, the OP was revised for 2008-2011 period to rationalize activities for building effective health MIS. This followed taking approval on the revised OP.

12. Publications of health reports

To disseminate health information to policy makers and stakeholders, MIS (health) published following health reports: (a) Year book 2007 on HNPSP (2006-07) activities; (b) Health Bulletin 2008 on country's health situation; (c) Voice of MIS newsletter on EOC activities.

13. Health workers' diary

To reduce community-based data collection forms, harmonize data collection system, reduce work burden of health workers and improve data archiving, a Health workers' diary was published. The initial draft for the diary was done MIS (health), which was then finalized through consultation with the users, line directors and experts

of ICDDR,B and UNICEF. Thanks to the Bureau of Health Education that it made arrangement for printing and distribution of the diary to all health workers.

14. Development of more online database software

To minimize duplication in data collection and compilation, reduce number of data collection forms and speed up data transmission system, a number of web-based database software has been developed to collect data online. New software are being developed and old software are being further improved.

15. Capacity building and motivation of staffs

The new IT Lab enhanced training capacity of MIS (health) manifolds in the improvement of capacity of the data management staff both at MIS (health) and all over health services and in the improvement of their motivation on newer possibilities. Through addition of this new facility, it has been possible to bring the data management staffs at all levels under repeated training and motivation sessions.

16. More coverage of data providers

To encourage tertiary hospitals in public sector, and hospitals and clinics in private sector to provide hospital statistics to MIS (health), workshops were organized with support from WHO where relevant stakeholders at mid- to top-levels of the organizations were invited. These institutions are gradually joining in the process of sending data.

17. Formation of organization level MIS Committees

To encourage local initiative to achieve MIS (health) goals for health information system improvement, MIS (health) committees have been framed at MOHFW, DGHS, and in all tertiary, district and upazila hospitals. To enable them work properly terms of reference have been developed and issued. Workshops were also designed to improve capacity of the committees.

18. Mobile phone health service

One mobile phone has been given to each upazila health complex and each district hospital to introduce mobile phone based tele-health service. This service is enabling the citizens of the respective catchments area to get health advice on calling an assigned mobile phone number. A doctor remains available to receive phone calls to listen to the health problems of people, advice instant treatment or welcome to health centre.

19. Video conferencing system with civil surgeons

To enable top policy makers in the Ministry of Health and DGHS hold real time video conversations with civil surgeons on urgent and important health issues, web cams were provided to each civil surgeon. The existing Internet connections are being used for video conferencing. At the initial stage, video conferencing platform like Skype is being used. The system will be made sophisticated gradually. The web camera based video conferencing has drawn much attention with respect to use in innovative functionalities, such as, tele-medicine, checking office attendance of remote health facilities, remote meeting, etc. In the next fiscals, it is expected video conferencing facilities will be expanded up to upazila level.

20. Extension of MIS (health) building

An auditorium with additional conference rooms are being constructed in the MIS building through vertical extension. This new

facility will create opportunity for demonstrating cheaper, innovative, quick and effective information communication solutions.

## CONCLUSION

MIS (health) has set the right momentum in the right path. If the momentum can be maintained in the current path, certainly there will be success to have an effective MIS (health) in place. The recent Digital Bangladesh movement in the country will be an opportunity for MIS (health) to exploit the potentials of building the infrastructures required for an information network for health MIS.

# Quality Assurance

## Introduction

Quality Assurance Program (QAP) had been taken as a support service to improve health care quality under the leadership of separate line director in Directorate General of Health Services. Quality of health care is of great concern to MOHFW for its commitment to maintain quality in all level services. In HPSP period, it had been working under the leadership of Director General of Health Services forming a cell named Quality Assurance Cell (QAC) which was looking after the quality aspect of health care services at all level (public, private & NGO). In HNPSP document, it is proposed that the Quality Assurance Program will continue the activities under a full-time line director for the period of 2003 - 2010.

The intended activities for the quality assurance program during HPSP were:

- Formation of national Quality Assurance Cell
- Formation of National Quality Assurance Team
- Formation of Regional Supportive Team.
- Establishing in-built QA mechanism in each primary, secondary and tertiary care facilities, establishing quality supervision and monitoring system at all levels;
- Review/ development of quality management protocols for national / district and upazila level; and
- Conducting surveys on consumers' and providers' perception of quality of care.

## Background

Quality assurance program plans to intervene in some priority areas feasible for present strength and also the areas where initiative were taken in the past. Service improvement, creation of positive staff attitude, shortening waiting time, adequate seats for waiting, adequate consultation time, improving privacy arrangement, improving doctors' behavior towards patient, improving providers' behavior towards the poor, cleanliness, regulated service are the issues that QA program considers as its priority action areas.

The 19 areas (9 for hospital services and 10 for field services) on which standards were developed cover most of the quality issues identified above except medicine and service regulation. Service regulation will be approached by medical audit, accreditation and benchmarking initiatives. Medicine issue is rather out of scope of QA which is directly related with budget, procurement and supply system. However, in-built QA mechanism within procurement and supply system may increase efficiency.

QA program is well aware that standard development, communication and monitoring is one dimension in handling quality issues. Quality issues have other dimensions to encounter too. QA program will thus go for other necessary processes that may help overcome quality gaps. These will be formulated by close collaboration with service providers managers and also collaboration with other programs under HPNSP which have similar issues to address.

## Goals and Objectives

- To assist in ensuring the improvement of the quality of health care service delivery at all levels.
- To increase the satisfaction level of clients and providers.
- To formulate regulatory mechanism for maintaining quality status in Government private and NGO health care services introducing medical audit, accreditation and bench marking.

## Activities of the OP

(a) Re-organization of Quality Assurance Cell including establishment of a resource center

(b) Updating and dissemination of standards / standard Operating Procedures

(c) Advocacy and orientation on QA

(d) Strengthening of National Quality Assurance Cell and Formation of Regional Quality Assurance Team

(e) Training on QA of managers and service providers at service delivery points

(i) Monitoring, evaluation and supervision of the standards which are on implementation

(f) Small scale yearly hospital and community based surveys for finding out quality gaps and level of client satisfaction

(g) Workshops on QA policy decisions and strategy development

(h) Consultative meetings with other organizations related to quality issues and organizations working (GO, private and NGO) on health care quality.

(i) Capacity building / staff development of QA staff associated with Line Director (LD) at DGHS through foreign training / study tour.

## Current global and Country Situation with respect to each program / activity (Indicators, targets, etc.)

Quality of health care provided in the country is generally believed as not good. This has been often reflected in many media reports and evident in research findings or survey results. The nationwide service delivery survey (SDS–CIET Survey) indicate public opinion about quality of health and family planning services provided by the government are bad by 37% (1999), 41% (2000) and 45% (2003). The perceived problem that has been identified for government services were lack of/poor quality of medicines, bad service, bad staff attitude, difficult to reach, etc. For private and NGO health care services, the problems were cost of medicines, bad service, lack of staff, lack of different services, etc.

Baseline community based users survey (2000) that unveiled information from secondary and tertiary level government hospitals of Sylhet region tells that service users of 45% district hospitals and 60% medical college hospitals rated the service as bad. Waiting time (45 min. including registration), inadequate seats for waiting (one third patient could sit), very brief consultation time (60%-62% got 2-5 min.), worse privacy arrangement (92% had no privacy), doctors' behavior towards patient worked for rating as bad service. 49% of the indoor patients are not satisfied with overall service, 47% not satisfied with cleanliness, and 46% not satisfied with privacy.

World Bank's project appraisal document (2005) reiterated the quality issues prevailing such as lack of medicines, long waiting time and service providers' bad behavior towards the poor. Poor people cannot get good treatment or influence providers without patronage relationship. Women are in the most disadvantaged position because of their less access to patrons and resources–though the picture is a bit better for NGO services.

The document (PAD, 2005) also critically felt need of developing feasible and acceptable strategies for regulating and enforcing regulation of quality and volume for health services and pharmaceuticals.

The key quality issues that come up from current situation analysis are lack of medicine or poor quality medicine, bad service, bad staff attitude, difficult to reach, waiting time, inadequate seats for waiting, very brief consultation time, worse privacy arrangement, doctors' behavior towards patients, providers' bad behavior towards the poor, cleanliness, unregulated service, etc.

## Comperative results QA indicators survey/study

| QA Indicators | Survey on Client's Satisfaction Year -2003 | Survey on Client's Satisfaction Year-2008 |
|---|---|---|
| Quality of services<br>Good<br>Bad | <br>55%<br>45% | <br>84%<br>16% |
| Consultation time more than 4 minutes | 38 -40% | 54% |
| Maintenance of Patient Privacy | 8% | 27% |
| Cleanliness | 53% | 80% |
| Behavior (Good) | 51% | 87% |

## Process of Implementation

The program will have a central body called "National Quality Assurance Cell" to be located at DGHS, Dhaka under which all the plans of Quality Assurance Program will be implemented. It will have six regional quality assurance teams to be located at Divisional Directors' Office, one in each Divisional H.Q. Then in all Districts as well as in upazila hospitals, there will be in-built quality assurance cells to implement quality assurance processes and related activities under the guidance of National Quality Assurance Cell. National Quality Assurance Cell will equip regional teams and district as well as upazila hospitals by providing training, standards, SOPs, protocols and guidelines to assure quality. Under HNPSP, the program will only focus to district and upazila hospitals. The program will collect report on QA implementation status from these hospitals. The programs will also conduct yearly surveys to measure client satisfaction in respect of health care services given from these hospitals.

## Monitoring and supervision mechanism

The program has a monitoring and supervision form by which supervisor's record information from the hospitals. The filled in forms are then analyzed by QA Program to give feed back to the respective hospital authorities. Supervisors are both internal and external. Functional team members for QA in hospitals act as internal supervisors, so that they can assess quality status by their own. Supervisors from district health administration, divisional health administration and national level health administration act as external. External supervisors send their findings to QA program for analysis, feedback and necessary action.

## Achievements (In quantitative and qualitative terms)
## Period - July 2007 to June 2008

| Sl No. | Activity | Target | Achievement |
|---|---|---|---|
| 1 | Workshop , TOT and training on Quality Assurance | Workshop , TOT and training in 8 district hospitals, 55 Upazilla hospitals | Workshop , TOT and training in 7 district hospitals, 55 Upazilla hospitals c ompleted (95%) |
| 2 | Workshop with GO, NGO and Private representatives for updatation of TOT, Training module and SOPs | 1 Workshop | 1 workshop completed (100%). |
| 3 | Survey on Client satisfaction | 1 Survey | 1 Survey completed (100%). |
| 4 | Monitoring and Supervision | 18 district hospital and 40 Upazilla hospital planned. | Completed in 16 district hospitals and 52 Upazilla hospitals (100%). |
| 5 | Printing and Publication | TOT, Training Module and SOP printing and publication. | Updated TOT, Training Module and SOPs are under pr inting (80%). |
| 6 | Computer and spare parts purchase | 1 computer and spare parts. | 1 computer and spare parts purchased (100%). |

## Period - July 2008 to December 2008

| Sl No. | Activity | Target (July -Dec.08) | Achievement | Comment |
|---|---|---|---|---|
| 1. | Workshop, TOT and training on Quality Assurance | Workshop , TOT and training in 7 district hospitals, 50Upazilla hospitals | Workshop , TOT and training in 6(88 % ) district hospitals, 23 (46% )Upazilla hospitals completed | |
| 2. | Workshop with GO, NGO and Private representatives for updatatio n of TOT, Training module and SOPs New SOPs | 1 Workshop | 1 workshop completed (100 %). On new SOPs | |
| 3. | Survey on Client satisfaction | 1 Survey | - | Survey in 3rd quarter |
| 4. | Monitoring and Supervision | 10 district hospital and 20 Upazilla hospital planned. | Compl eted in 8 (80 %) district hospitals and 18 ( 90 % ) Upazilla hospitals. | |
| 5. | Printing and Publication | TOT, Training Module and SOP printing and publication. | - | Step are in progress |
| 6. | Computer and spare parts purchase | 1 computer and spare parts. | - | Step are i n progress |

| Components | Total | | | FY 2007-08 ** | | FY 2008-2009 | | FY 2009-2010 | |
|---|---|---|---|---|---|---|---|---|---|
| | Physical | | Financial (Tk. in lakh) | Physical Qty | Financial (Tk. in lakh) | Physical Qty | Financial (Tk. in lakh) | Physical Qty | Financial (Tk. in lakh) |
| | Unit | Qty | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| **a) Physical works** | | | | - | - | - | - | - | - |
| i) Re-organization of Quality Assurance Cell. | Cell (No.) | 1 | | | | | | | |
| ii) Updating & dissemination of Standards / Standard Operating Procedures. | Functional areas (No.) | 8 | | | | | | | |
| iii) Standards of structure and process for 31,50 and 100 bedded hospitals. | Set | 3 sets | | | | | | | |
| iv) Printing and publication | Booklets | 5000 Copies | 10.00 | | | 3000 Copies | 6.00 | 2000 Copies | 4.00 |
| Printing booklets of standards | Booklets | | | | | | | | |
| Printing of Standards of structure and process for 31,50 and 100 bedded hospitals. | Booklets | | | | | | | | |
| v) Training | | | 274.00 | | | | 132.00 | | 142.00 |
| TOT on QA training | Sessions | 36 Sessions | | | | 20 | | 16 | |
| Training on QA | Sessions | 80 Sessions | | | | 50 | | 30 | |
| Awareness | Sessions | 20 Sessions | | | | 12 | | 8 | |
| Advocacy sessions | Sessions | 15 Sessions | | | | 9 | | 6 | |
| Orientation sessions | Sessions | 10 Sessions | | | | 6 | | 4 | |
| BCC training | Sessions | 20 Sessions | | | | 12 | | 8 | |
| Refreshers training | Sessions | 15 Sessions | | | | 9 | | 6 | |
| Workshops on Quality decisions | Workshop | 2 | | | | 1 | | 1 | |
| Consultative meeting | Meeting | 10 meeting | 6.00 | | | 6 Meetings | 4.00 | 4 Meetings | 2.00 |

| Components | Total | | | FY 2007-08 ** | | FY 2008-2009 | | FY 2009-2010 | |
|---|---|---|---|---|---|---|---|---|---|
| | Physical | | Financial (Tk. in lakh) | Physical Qty | Financial (Tk. in lakh) | Physical Qty | Financial (Tk. in lakh) | Physical Qty | Financial (Tk. in lakh) |
| | Unit | Qty | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Capacity building through foreign training | Persons trained | 4 persons | 25.00 | | | 4 persons | 25.00 | - | - |
| vi) Monitoring and supervision | Visit | 120 visits | 8.00 | | | 60 visits | 4.00 | 60 visits | 4.00 |
| vii) Developing model hospital | Model hospital | 2 hospitals | | | | | | | |
| viii) Small scale survey | Survey | 2 surveys | 4.00 | | | 1 | 2.00 | 1 | 2.00 |
| ix) Limited scale medical audit system | system | 1 | | | | | | | |
| x) Acquisition of assets | | | | | | | | | |
| Computer (Laptop) | | | 1.00 | | | | 1.00 | | 0.00 |
| Computer (Desktop) | | | | | | | | | |
| Photocopier | | | | | | | | | |
| Accessories (Computer & office) | | | | | | | | | |
| Color printer | | | | | | | | | |
| Scanner | | | | | | | | | |
| Pen drive | | | | | | | | | |
| Multimedia Projector with LCD & Accessories | | | | | | | | | |
| **Sub-total (a)** | | | **328.00** | | | | **174.00** | | **164.00** |
| **b) Non- Physical works** | | | | | | | | | |
| Telephone | | | 0.30 | | | | 0.15 | | 0.15 |
| Registration Fee | | | 0.10 | | | | 0.05 | | 0.05 |
| Petrol & Oil | | | 8.00 | | | | 4.00 | | 4.00 |
| Stationeries, Seals & Stamp | | | 2.50 | | | | 1.25 | | 1.25 |
| Transport Charge | | | 0.60 | | | | 0.30 | | 0.30 |
| Purchase of Consumable stores | | | 2.50 | | | | 1.25 | | 1.25 |
| Cleaning & Washing | | | 0.20 | | | | 0.10 | | 0.10 |
| Motor Vehicle | | | 1.70 | | | | 1.00 | | 0.70 |
| Furniture's and Fittings (Maintenance) | | | 0.50 | | | | 0.25 | | 0.25 |
| Computers & Accessories (Maintenance) | | | 2.50 | | | | 1.25 | | 1.25 |
| Machinery's office Equipment | | | 0.40 | | | | 0.20 | | 0.20 |
| Electrical Installations | | | 0.20 | | | | 0.10 | | 0.10 |
| **Sub-total – (b)** | | | **19.50** | | | | **9.90** | | **9.60** |
| ***Total (a+b)= Total*** | | | ***347.50*** | | | | ***183.90*** | | ***163.60*** |

# Sector Wide Program Management

## Introduction

For HNPSP, the Government has decided on the continuation of the sector wide approach for the management of the Health, Nutrition and Population sector. The overall purpose of sector wide management (SWM) is to improve the performance of the sector and, hence improve the health of the people of Bangladesh. It is envisaged that SWM will improve performance mainly through (i) improving Government's capacity to set policy and strategies that are then translated into plans and implemented; and (ii) improving the efficiency of resource utilization, enhancing service coverage and improving service quality. This should result in increased value for money. Sector wide management is a Ministry-led approach.

## Objectives

- To Improve Governments capacity to set policy and strategies that are then translated into plans and also Capacity Development of Health Personnel at different level in respect of Planning & Implementation.
- To improve the efficiency of resource utilization, enhancing service coverage, and improving service quality.
- Create closer and fully operational linkage with other sector program and activities that also have an impact on health status.
- Ensure participation and representation of the poor in local-level planning and stakeholder consultation.

## Relationship of objectives in line with HNPSP

The overall purpose of sector wide management (SWM) was to improve the performance of the sector, capacity building, decentralization and hence to improve the health status of the people of Bangladesh. The Government has decided on the continuation of the sector wide approach for the management of the Health Nutrition and Population Sector Program (HNPSP).

**Priority objectives** of HNPSP is to (i) reduce MMR; (ii) reducing TFR; (iii) reducing malnutrition; (iv) reducing infant and under-five mortality; (v) reducing TB, Malaria, HIV/AIDS; and (vi) prevention and control of non-communicable diseases including injuries. To meet the above priorities, the objectives of the Operational Plan of SWPM are set which are in line with the objectives of HNPSP.

## Linkage with MDG

In line with Millennium Development Goals and targets, the strategies of the GoB identifiy the key investments required to accelerate the modernization of the HNP sector in Bangladesh so that it becomes more responsive to clients' needs, more efficient in the delivery of services and more effective in providing key services for poor people. By re-invigorating program efforts directed at improved maternal health, reduced child mortality, reduced fertility and disease control, SWPM is expected to contribute significantly to the achievement of health-related Millennium Development Goals.

## Linkage with PRS

The Government of Bangladesh is committed to ensure that its citizens are provided with opportunities to realize their full potential. Reducing poverty and improving health are central to this objective. Better health is a direct outcome of economic development. At the same time, stronger economic growth is an important consequence of better health. Improvements in health translate into higher incomes, higher economic growth and reduced level of poverty. Continued economic growth depends on improved productivity, which is only possible if there is a well-educated, healthy workforce with appropriate skills. Sector Wide Program Management is going to address these issues by improving efficiency and effectiveness in resource utilization and improving the distributional effectiveness of its service by targeting public resources better to priority needs of recipients.

## Strategies

- Institutionalization of the bottom-up planning process in health care delivery system at Upazilla and below.
- To step forward towards more authority delegation and decentralization.
- Mobilization of the local resources
- Integrated service delivery focusing on pro-poor and gender equity.

## Activities of the OP

- Liaison with Ministry of Health and Family Welfare, Planning Commission, IMED, ERD and Development Partners

## Performance Indicator of the OP

| Indicators(s) | Unit of Measurement | Targets Planned for each year |
|---|---|---|
| Resource Mobilization | | 1st installment by30th July<br>2nd installment by 30th Dec. |
| Procurement | | Completed by Dec each year |
| Orientation workshop of district LLP facilitator conducted | No. of workshops completed | 64-each year<br>80% of the workshop to be completed by 30th January every year. |
| Upazila Plans prepared | No. of Upazila plans prepared. | 475-per year<br>80% of the plans to be completed by 31st march every year |
| Community participation meeting held | No. of meetings held | 475-per year<br>80% of the meeting to be completed by 28th February every year |
| Data base development | Data base available | 1 every year<br>To be completed by May every year. |
| Workshop /Seminar for Capacity Development of Health Personnel at different level in respect of Planning & Implementation. | No. of workshops completed | 12 each year<br>80% to be completed April each Year |

Planning and Monitoring of Development Program Performance

- Organize orientation, training and coordination for Central, District and Upazila Managers on Local Level Planning and Management.
- Interaction and mutual consultation between planning unit and Line Directors.
- Development of a database of health facilities

## Achievements

1. 105 upazila LLP teams have developed their Local Level Plans.
2. 63 district LLP teams strengthened to support the upazila LLP teams.
3. Community views were incorporated and reflected in the upazila local plans.
4. Six workshops at central level and six at divisional level were arranged to build up the concept for Sector Wide Program Management and Decentralized Planning.
5. 12 monitoring meetings were had with the Line directors and Project Directors to coordinate and monitor the program implementation
6. 40 officers and staffs were trained to develop computer skill and management capacity.

## Future Plan of Actions

- To introduce a system for review and monitoring, strengthen up feedback and to improve the quality of LLPs in order to maximize the impact of key health priorities.
- Development of operational guidelines for the exercise of delegated authority and responsibilities at the upazila and district level with stakeholders participation. This will include identification of logistics needs and suggested mechanisms for their financing, procurement and distribution.
- Hospital improvement initiative with necessary delegation of financial and management authority and autonomy.
- Setting up mechanisms for resource generation at local level, with provisions for accountability and transparency.

The recent HNP Strategic Investment Plan 2003-2010, better known as the HNP SIP, confirms GOB commitment to pro-poor health service provision and address the need to reappraise the essential core functions of the public sector. This will be focused on improving the image of the HNP sector, and the prevention, early detection and the management of key health problems (safe delivery and appropriate new-born care, HIV/AIDS, tuberculosis, malaria, respiratory and cardio-vascular disease) and on promoting healthy life-styles and behaviors (better maternal and childhood nutrition, effective family planning, reducing smoking, improved domestic, road, water and industrial safety). Sector wide management is a bottom–up planning approach which is doable, realistic and sustainable.

# Human Resource Managements

## Introduction

Health sector in general, has a great weakness in human resource management. Duplication of activities, Mal-distribution of human resources, mismatches in production, in adequate skill-mix, lack of career plan and career mobility, very inappropriate career ladder, and lack of incentives made the total services cost-ineffective and unproductive. During HPSP an integrated and need based human resource development (HRD) mechanism was tried to evolve and institutionalize according to the recommendations of high level committee and HAPP-5.

Human Resource Management during HNPSP will be based on the principal of rational allocation of HR according to an appropriately standardized skill mix. Related personnel management will be reviewed and updated as required. Update could include introduction of incentives for service providers working in hard to reach areas and modification of recruitment rules, providing promotion scope for those who deserved, in transfer- posting transparent policy which ensures push and pull system, specific job description, etc.

## Background

Since 1993, GOB has realized the need for a strategic and holistic approach for addressing HR issues and enabling the health system to address the health challenges and meet the health needs and the expectation of the people. The first attempt to develop HR strategy was "Human Resource Development Strategy for MOHFW.

The Government of Bangladesh recognized the need for a comprehensive approach to HRD & HRM to address the problems. The Fourth Population and Health Project included HRD as one of its components. The linkages of HRD to other projects and the importance of HRD in health sector reform initiatives have led to a concerted effort by the Government of Bangladesh and the development partners.

The main crucial component of health service delivery is human resources- the numbers, quality and performance of health workforces, with particular regard to their technical, administrative and managerial knowledge and skills, their attitude and commitment towards assigned responsibilities. HR development is mainly concentrated on production of graduates and providing various training, but attention on production and training of the support staff, and their deployment and comprehensive career plan has not been taken care. Fourth Population and Health Project (1992-96) undertaken a project named, "Formulation of a Master Plan for development of Human Resources for Health and Family Planning" to ensure proper production, utilization of human resources and coordination of support activities, including gender equity. The proposed plan could not be completed as Master Plan, but developed as "A Strategy for Change, 1997" because that was a transitional period of preparation of 'Health Policy' and recommendation of HLCOM and HAPP-5 was under process. About 80% of HRD Master Plan was prepared. After GOB Health Policy recommendation mainly with HLCOM & HAPP-5, adjustment was needed to develop 'Master Plan' projecting demand for next 15-20 years.

## Components

- Workforce planning
- Workforce development
- Capacity building
- HR support function
- Performance management
- Gender equity
- Quality of service and sustainability

## Objectives

- Workforce Planning / Human Resource Planning;
- Optimum utilization of human resources;
- Efficiency through training, workshops, trainers;
- Moral of the workforce;
- Individual Performance Management;
- Addressing human resource management and development issues including challenges to overcome;
- Coordinating all HRD & HRM functions of relevant programs of the DGHS to avoid duplication.

## Activities

- Preparation of job description for all categories posts in the DG health office, District Hospitals, Medical College Hospitals, Medical Colleges, other Institutes and Upazilla Health Complexes.
- Improvement of accountability and performance of personnel by developing and implementing a performance management system.
- Strengthening the HRM function.
- Orientation on Individual performance management system for the health personnel.
- Establishing and utilizing a management information system able to provide gender desegregated employment data, using PMIS.
- Establishing an effective co-ordination mechanism of human resource development.
- Arranging capacity building training (Local, non-local & foreign)
- Introducing individual performance management (IPM) in other upazilas.
- Revision of recruitment rule.
- Report on vacancy level.
- Gradation list upgradation.
- Cadre composition.
- Deployment of various categories of personnel.

## Targets

To develop a practical and implementable HR Master Plan based on HR Strategy that would properly addresses the HR issues of great concern.

## Activities of HRM program under HNPSP of DGHS & the Targets

| Sl No. | Activities | Completed | Target for mid 2009 |
|---|---|---|---|
| 01 | Job description | Job description of all categories of employees reviewed, updated in June' 07. | Job description of all categories of employees in District Hospitals, Civil Surgeons offices, Upazila Health Complexs, Medical Colleges will be prepared by June '09 |
| 02 | Gradation list | Draft completed. | Final draft G-list up to 25th BCS will be complied by 2008-09. |
| 03 | Individual performance management training for improving performance and accountability. | Completed in District level (22) and Upazila Level (60). | Piloting implementation will be completed quarterly in 48 upazilas by June '09. |
| 04. | Recruitment rules of cadre & non cadre employees. | Revised and sent to MOHFP revised on 31 Dec. 2007 for finalization | Revisit of BCS Health Cadre recruitment rules by 2008-09 |
| 05. | Cadre composition under process | On going process | Cadre composition will be completed by 2008-09. |
| 06. | Recruitment of Medical Assistants | In 1st phase 1460, in 2nd phase 320. Appointment letters issued or they have already joined | By 2008-09 |
| 07. | Recruitment of Medical Technologists in different categories, Pharmacists Dental Technologists, Physiotherapists. | On going | 2008 – 09 |
| 08. | a. Training on office management b. Training on Financial Management c. Training on Various disciplinary Procedure d. Workshop on regulatory low e. IPM Module review, updated & Printed | | 2008 – 09 |

among the things, establish career plans for specific lines of specializations, based on competence and experience, and a clear principle for promotions, postings and transfers. Moreover a study for assessing the requirement of HR skill mix in public and private sector in next 10 years to formulate a comprehensive plan for pre-service education and in service training program to be considered.

### Human Resource Management

Human Resource Management during HNPSP will be based on the principle of rational allocation of human resource according to an appropriately standardized skill mix. Related personnel management procedures will be reviewed and updated as required. Updates could include introduction of incentives for service providers working in remote and hard-to-reach areas and modification of the transfer-posting policy for local managers prepared to stay longer in such areas.

### Performance management

Supervision and annual performance evaluation of individual staff will be strengthened. This will include application of merit-based incentives as well as disciplinary measures in response to absenteeism or misuse of public-sector facilities for private practice. Supervisor and supervisee committee for performance monitoring be introduced.

**HNPSP** will, in addition, introduce the **"Performance Improvement"** (PI) approach to human resource management. Different from the training of individuals, which has been the main emphasis so far, the PI approach will seek to improve the performance of operational units through a systematic process that identifies the gap between desired and actual performance and leads to agreed-upon intervention that address the identified root causes of performance gaps.

**Co-ordination with the PMIS** of the respective directorate will be done at the Ministry level. This coordination aims at ensuring improvement of regular updating and timely availability of reports to support human resource management.

### Training, Recruitment and Deployment

Human resources development and management is a systematic attempt to coordinate actions in health and family planning services that concern the training and use of the health workforce. How many of each category of personnel are needed, how to better train them, in what type of environment, who should be the trainers, which training strategies should be used-these are the qualitative aspects that need our immediate attention and understanding. HRM is also concerned with managing human resources in order to use them efficiently. Related actions concerning job and workload definition, posting and deployment, career mobility, working conditions, incentives, supervision, evaluation, regulation of practice, etc.

### Equity and Voice

The availability and utilization of mandated quality services, particularly for the poor, women and tribal citizens are also affected by citizen- health provider engagement and existence of informed demand for these services. Experience from the small Health Watch Program and other programs have demonstrated that where citizens, community-based organizations, NGOs, local government personnel are aware of Government priorities and work together closely at all levels, they can make notable productivity gains reflected as cleaner facilities, better maintained equipment, reduced unofficial fees, greater access to drugs and improved care shown by health providers. Increasing voice and demand will require building ownership and capacity within

GNSPU, GIO and BCC/IEC, launch of the Tribal Health Plan and regular coordination with local government, other Ministries and NGOs.

### Current global and country situation with respect to each program / activity (indicators, targets, etc.)

Health service is a labor-intensive sector. There are more than 1,33,349 personnel under the Directorate General of Health Services, including 17,797 Medical Graduates, Nurses 14,971, Technical Paramedics 1,985, Medical Assistants 5,598, Sanitary Inspectors 491, Health Inspectors 1,400, Health Technicians 1,849, Health Assistants 21,016. Imbalance in the production distribution, deployment of right person in a right position in adequate skill mix is a great challenge for health policy makers, as per implementers, and managers.


**Exchange of views with the participants of the Individual Performance Management (IPM) workshop at Pabna District**

There are multiple speciaitis among the clinical, non-clinical and public health managers. Doctor Nurses ratios, Doctor and Population ratio, Doctor and Paramedics ratio, Population and nurses ratio always remain inappropriate. It reveals that population and Nurse 1: 6,585, Doctor and Nurse ratio is 1:0.48, and Population: Physician ratio is 3,188:1 and population and Paramedics ratio is 5,000:1. The limited capacity of the current system to train and produce health providers and managers of the quantity and quality, lack of job related incentives and dis-proportionate job posts for same urgently needed categories enhancing de-motivation among the health service providers.

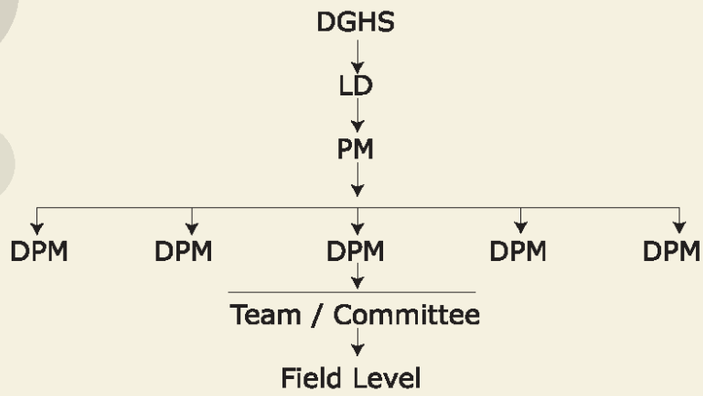
Training and production of HR are mostly urban based and clinical, public health and preventive health care needs more attention. Surprisingly, we have post graduate institutes both in public and private sectors, but there is no public health posts in our entire services, excepts few in teaching. So, it is utmost important, that policy and programs should be created to effectively support the creation of necessary incentives and other arrangements to ensure motivated and high performing health care providers.

Over the last decade, there has been tangible progress in the development of health infrastructure. But the health status of the population continues to be low as reflected in the major indicators of morbidity, mortality, and other epidemiological parameters.

### Process of implementation

After approval of the OP, the Line Director with his/her PM and DMP makes a time bound Implementation Plan to achieve the objectives of the OP. As many of the activities need to be implemented at grassroot levels, some times CS, UH&FPO, even MOs are given responsibilities to implement the program. However, the implementation process is shown in the organogam:

## Flow chart for Process of implementation



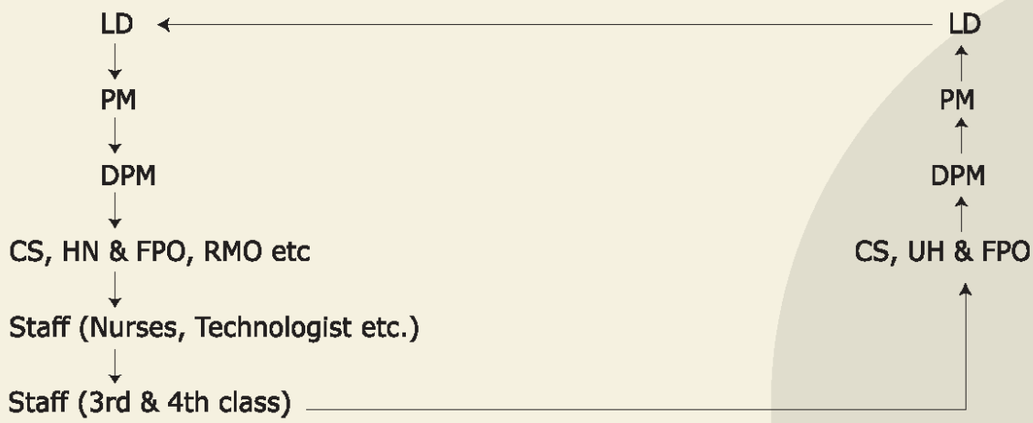

### Monitoring and supervision mechanism

The performance monitoring, supervision and evaluation of health sector is a critical for identifying whether they are likely to meet the primary aims of training, also they provide the principal means for feeding back to managers, so that changes can be made if strategically do not appear to be working.

Performance indicators are useful for strategic planning, performance accounting, forecasting and early working during project implementation.

The monitoring systems under the HRM, DGHS' OP is quite satisfactory. Following flow-chart would reflect the total process of monitoring of the activities of this OP:

## Flow chart for monitoring and supervision mechanism




As the DPMs and the PM remains very busy with so many activities of the OP, many of the times, it is not possible for them to supervise physically the activities on the ground. In this respect, the CS & UHFPOS play a vital role, and they supervise these activities and send reports to the PM.

*Participants of Individual Performance Management (IPM) Workshop*


*Group dicussion of Individual Performance Management (IPM) workshop at Pabna Civil Surgeon Office*

**Achievements (in quantitative terms)**

Since, 2003, HRM program achieved a significant improvement in various field. Job description of DGHS was completed in June, 2007, recruitment rules for cadre and non-cadre were reviewed and updated which are now lying with ministry for approval. TOT for HRM prepared and bring utilized. Individual Performance Management (IPM) training was conducted in 64 Districts and 60 upazilas and 120 workshops were conducted where total 4,532 health personnel were trained. IPM modules revised and updated. In summary achievement of this OP in last one year is almost 90%. Cadre-composition draft completed and vacancy list of various discipline were updated.

**Future plans**

- To continue the concepts stated in the OP
- Finalization of the HR strategy
- Draft Preparation of the HR-Master Plan

# Improved Financial Management

## Introduction

Financial Management is an important area for health services and needs improvement for the implementation of next 5 years plan. Finance section of the DGHS consists of Budget, Accounts and Audit Units under permanent revenue set up, release of fund, sanction for the expenditure, preparation of expenditure statement, revenue earning and internal audit in respect of Revenue Budget and Expenditure of all the Institutions under the DGHS. In this context of the HNPSP, Improved Financial Management under DGHS is a co-coordinating part of the Financial Management Unit (FMU) which is responsible for the Financial Management of DGHS to prepare budget, management of fund, collection and compilation of SOEs for revenue budget and internal audit arrangement of development fund.

## Objectives of the OP

### General

The objective of the Operational Plan is to improve the financial management in the DGHS particularly for the implementation of HNPSP and institutionalization of financial information system with the help and cooperation of other concerned Line Directors and the FMU of the MOHFW.

### Specific

Workshop on financial management

- Acquisition of assets
- Repair & maintenance
- Purchase of stationary & consumable stores
- Prepareation of a need based budget and rationalized allocation of fund
- Proper management of fund received as per government financial rules.
- Orientation on general financial rules, tender rules & MSR procurements
- Preparation of statements of expenditure ( SOEs)
- Conducting internal audit.
- Institutionalizing FMIS.

## Output during HNPSP and related activities

1. Improved budgeting system and practices at all levels

2. Institutionalization of the computer based Financial Management Information System established during HPSP and its regular use;

3. Capacity building of officers and staffs in financial management and the Financial MIS;

4. Re-organization and strengthening of the finance section of DGHS resulting in improved efficiency, reduced system loss and timely performance of assigned task.

The DGHS finance section staffs under the revenue set up are however, insufficient for implementation and introducing an improved accounting and budgeting system. They will, therefore, require complementary development budget support for their training for capacity building for IFM of DGHS personnel (including existing personnel under the revenue budget) will be explored.

## Priority activities of the Operational Plan

| Major Components | Priority Activities | Other Activities |
|---|---|---|
| Strengthening of finance section | Output: properBudget will be prepared | supply and services |
| | Output: Computerized Finance MIS | Repair and Maintenance |
| | | Acquisition of assets |
| Capacity building of officers and staffs | Output : Awareness about Financial management Output : Up-to-date job description Output : trained personnel will be available under DGHS (Finance wing) | |

# Micronutrient Supplementation

## Introduction

Institute of Public Health Nutrition is implementing quite a good number of important activities intended for the improvement of the nutritional status of the people particularly for the under 5 children and mothers. Its charter of duties are technical advisor of the Ministry of Health and Family Welfare in respect of nutrition related issues; and representing MOH & FW in different international and national technical bodies dealing nutrition.

## Performance indicators

There are ample of performance indicators for monitoring and review of the activities and achievements of nutrition interventions. Among those, the most important indices are:

- For vitamin A deficiency disorders- % of night blindness among children and WCBA
- For IDD – Urinary iodide excretion rate
- Iron deficiency disorders - % of anemia among WCBA and under 5 year children
- IYCF - % of children consuming colostrums
- % of children under exclusive breast feeding
- W/A Z score - % of children under weight
- BCC - % of population under direct contact of BCC activities.

## Objectives

1. To reduce the micronutrient deficiencies of the target group
2. Micronutrient supplementation
3. Training of health workers

## workers Activities

### A. Nutrition Blindness Prevention Program (NBPP)

- Children under 1 year - High potency vitamin A capsule (1 lakh i.u.) Supplementation during measles vaccination at EPI sites
- Children 1 to 5 year-High potency vitamin A capsule (2 lakh i.u.) supplementation through national events 2 times (4-6 month Intervals) a year
- Mother - High potency vitamin A capsule (2 lakh i.u.) supplementation during postpartum period (With in 6 wks of delivery).

## Achievements

- Rate of night blindness reduced from 3.76% (1983) to 0.04% (2005)
- Coverage rate of Vitamin A Capsule (1 to 5 years) – 99.7% (10 May 2008)
- Albendazole - 99.3% (10 May 2008)
- Postpartum coverage –29% (2006)
- Seminar with eminent gynecologists of the country was arranged. They committed to suggest vitamin A in antenatal checkup and according to their decisions a guideline sent to different hospitals to increase coverage.
- >1 year coverage – 73% (2006)

### B. Reduction in the incidence of iodine deficiency diseases (IDD)

- Iodized salt monitoring
- Awareness creation activities
- Training of field workers of health and family planning on control of iodine deficiency disorder (CIDD)

- Training for testing Iodized salt
- Surveillance of salt for iodization

### Strategy implementation

Address the major causes of the malnutrition and anemia including iron-folate supplementation, long time food fortification and implementation.

### Goiter prevalence rate

| Category | Year | | |
|---|---|---|---|
| | 1993 | 1999 | 2004 - 2005 |
| Children (6-12years) | 49.8% | 17.2% | 6.2% |
| Women (15- 44years) | 55.6% | 24.2% | 11.7% |

### Biochemical Iodine Deficiency

| Category | Year | | |
|---|---|---|---|
| | 1993 | 1999 | 2004 - 2005 |
| Children (6 - 12years) | 71.0% | 42.5% | 33.8% |
| Women (15 - 44years) | 70.2% | 45.6% | 38.6% |

### Achievements

- Survey USI and IDD completed (IPHN, BISIC, INFS – 2004/05)

  Iodized salt user – 84% (UNICEF, 2006)
- Orientation program is going on
- HI and SI of 57 districts are oriented about Universal salt iodinisation law.
- Universal salt iodinisation law is currently updated and awaiting for ministry approval.

### C. Reduction of incidence of Anemia

- Awareness creation activities to control anemia
- Parasitic disease control

### Prevalence of Anemia in Bangladesh

- Pre School aged children-49%
- Pregnant Women -46%
- Non pregnant Women -33%
- Adolescent in country -23-29%
- Adolescent in the CHT -43%

### Achievements

Strategy developed for reduction of incidence of anemia. Preparation of action plan is going on.

### D. Reduction of Protein Energy Malnutrition (PEM) by training program

- Awareness program for PEM control
- Growth monitoring of 1-3 years old children
- Communication on weaning

### Achievements

A national guideline for severe PEM is finalized and now in press.

### E. Infant and Young Child Feeding (IYCF)

- Strategy implementation
- Promotion and protection of Breast feeding through proper implementation of BMS code and proper child weaning Practice

### Infant and Young child feeding (IYCF) practice in Bangladesh

- Exclusively Breast Fed aged
- less than 6 months42%
- Colostrums Feeding87%
- Bottle fed infants under 6 months22%

### Achievements

- IYCF strategy developed and disseminated. IPHN is working in it for preparation of action plan
- Protection of breast-feeding through implementation of "The Breast Milk Substitutes (Regulation of Marketing) Ordinance, 1984". IPHN is working for updating the law
- About 1000 nurses and policy makers were trained about law
- National Advisory Committee meeting for BMS code chaired by additional secretary
- Promotion of breast feeding through awareness creation activities is going on
- Quite a good number of medical colleges hospitals, district hospital and upazilla health complexes made baby friendly hospitals and practicing exclusive breast feeding practices for the first 6 months of life
- Awareness creation activities about complementary feeding is going on
- Legal action on BMS Code taken against 4 companies
- Licensing and renewal of breast milk substitute is being updated.

### F. To strengthen laboratory activities

- To develop the effective laboratory facilities of food and biochemical aspects of nutrition
- Serological tests for nutrition related diseases

### Achievements

- CNU is now running in its full strength, all laboratory tests of children and mothers are routinely done in IPHN laboratory
- Iodine content of salt routinely tested.

### G. To strengthen Institutional capacity

- Human resources development (HRD)
- Logistics and equipments

### H. Multi sectoral co-ordination

- Different ministries
- Development partners

**I.** Guideline for the **"Management of Severe Malnutrition of Children in Bangladesh"** already developed and now awaiting for finalization stage.

### J. Nutritional survey

- To evaluate nutrition related situation at present in selected districts
- To assess rapidly the impact of price hike on household food security, food quality and nutritional status among poor women and children in Bangladesh
- Recently a survey prepared from 164 family in Bangalypoor union, Sayidpur Upazila, Nilphamari district.

### K. Strengthening Nutrition & Food Safety Education WHO supported Program

- Training for nutrition sector
- Training for nutrition vulnerable population
- Development of Radio and Television spot on Nutrition awareness creation
- Research on nutrition

### Achievements

- IPHN has conducted quiet a good number of training and awareness programs in divisions
- Districts and upazila involving all the sectors working in nutrition related works
- Advertisement agencies are contracted for nutritional advertisement

### L. Laboratory related activities

IPHN has one food science laboratory and one pathological laboratory where all nutrition related and general pathological investigations could be done.

### Achievements

Action taken for upgrading

### M. Strengthening of Child Nutrition Unit

- Identification of malnourished children under 1-3 years of age through growth monitoring
- Orientation and education program for mother

The Institute of Public Health Nutrition is running 20 Child Nutrition Units, located one in central level and others are in 19 upazila health complexes under the administrative control of the institute, the program has provided one nutritionist in each center. The over all aim is to improve the nutritional status of the under five children and mothers of the country. The activities of the CNUs are :

- Growth monitoring
- Supplementations
- Complementary feeding
- Nutrition corner for mothers education on nutrition
- Breast feeding corner
- Treatment of malnutrition and associated problems
- Referral center
- Demonstration of home gardening

IPHN has taken steps to revitalize and provide more functional support to CNUs other than Mohakhali where all activities are going on at present. In last 6 months 500 malnourished / undernourished mother and children are managed. Among the treated children 229 children are average malnourished out of them 4 (1.8 %) are severely malnourished.

# National Eye Care

## Introduction

The Government of Bangladesh has identified blindness as a critical social and health problem and demonstrated its commitment by forming a National apex body entitled Bangladesh National Council for the Blind in the year 1978 with a mandate to formulate, facilitate and monitor the National Plan of Action to Prevent and Control Blindness. Besides, the Government of Bangladesh has ratified the Vision 2020 program (innovative approach initiated by WHO, IAPB, professional bodies and civil societies to prevent avoidable blindness from the globe).

## Background

Avoidable blindness is one the major public health problems in Bangladesh. According to recently conducted National Blindness & Low vision survey, presently about 7.5 lakhs people aged 30 and above and about 40 thousand children in the country are blind. About 5 million people including children suffer from refractive errors while 2,50,000 adults are victims of low vision. If no intervention is initiated immediately, the number of blind population will go double by the year 2020.

In view of this critical situation, Bangladesh Government, being a signatory to Vision 2020, a global campaign for elimination of avoidable blindness by the year 2020, formulated a National Eye Care Plan under the leadership of the Bangladesh National Council for the Blind- an apex body under The Ministry of Health and Family Welfare in consultation with the stakeholders across the country with supports from International Eye NGOs.

## Goal of the operation plan

Elimination of avoidable blindness by the year 2020.

## Objectives of the operational plan

- To develop /improve Eye Care infrastructure at secondary and primary level.
- To strengthen coordination among GO- NGO, private Eye Care providers.
- To increase awareness of mass population on eye care.
- To increase country cataract surgical rate through improving skill of ophthalmologists.
- To prevent childhood Blindness.
- To increase affordability of eye care services by the poor patients particularly elderly, women and children through vouchering scheme.

## Strategies

- Strengthening advocacy.
- Development of facilities and technology.
- Human resource development and management.
- Reducing the diseases burden
- Improving/expanding co-ordination and partnership.
- Developing/Strengthening eye health promotion system.
- Introducing/Strengthening in built supervision system.
- Supporting low vision patients with appropriate devices.
- Introducing in built MIS eye health system.
- Sustaining vouchering scheme.

## Component of the Program

- Strengthening advocacy and coordination.
- Policy development & support.
- Planning & research.

- Infrastructure & facility development.
- Supply/repair and maintenance of equipment.
- Establishment of structured referral system.
- Human resource development.
- Performance Management

### Activities under taken during 2007-2008

- Training, deployment and retaining of eye care providers.
- Procurement, distribution, installation and maintenance of eye care equipment.
- MSR support to District Hospitals for IOL Cases.
- Development of TV Spot, Radio spool.
- Development sharing and printing of treatment protocol.
- Development sharing and printing of training module for PHC workers.
- MSR support to outreach eye camps through district health administration.
- Sustaining of vouchering scheme for the poor and the marginalized.
- Development, field testing and used of MIS tools.

### Achievements during the period 2007-2008

- Twenty (20) ophthalmologists from different districts have been trained on micro surgery (SICS).
- Fifteen hundred (1500) primary health care workers have been trained on primary eye care.
- Eye Care equipment procured, distributed and installed in 10 (ten) Districts.
- One TV spot and one Radio spool developed and disseminated.
- Vision 2020 District committee formed in 6 (six) District e.g. Chapai Nawabganj, Nilphamari, B. Baria, Satkhira, Cox's Bazar and Narayanganj.
- MSR support to District hospitals B. Baria, Satkhira, Narayanganj, Sariatpur, Madaripur, Bhola, Rajbari, Chandpur, Munshiganj, Netrokona, Pirojpur by GOB (Manikgonj, Chpai Nawabganj, Nilphamari, Noakhali, Jhenaidah, Jhalokati, Dinajpur) by NGOs.
- Vouchering scheme for IOL (Cash support to poor patients) surgery in District of Manikgonj sustained.
- Printing of 3000 copies of treatment protocol.
- Printing of 5000 copies of training module for PHC workers.
- Editing & reprinting of 3000 copies of National Eye Care Plan.
- Development, Sharing & introduction of monthly & annual reporting format for strengthening of MIS eye health.

### Future plan of actions

- Improve co-operation & co-ordination among eye care providers.
- Introduction/strengthening of primary and secondary health centers to improve quality and expand coverage of eye care service delivery.
- Strengthening behavior change communication to increase awareness on primary eye care.
- Expansion of the coverage of vouchering scheme for IOL surgery to reach the poor.
- System development to monitor progress

# HNPSP Indicators as given by the Monitoring and Evaluation Unit of the Ministry of Health and Family welfare

| Indicators | Benchmark with reference period | Status | | Target | |
|---|---|---|---|---|---|
| | | 2004 | 2007 | 2010 | 2015 |
| **Component I: Accelerating achievement of MDG/PRS outcomes** | | | | | |
| **a) Impact / Outcome Indicators** | | | | | |
| 1. Infant Mortality Rate (IMR) Per 1000 live births | 94 (1990) | 65 BDHS 2004 | 52 BDHS 2007 | 37 | 31 |
| 2. Neo Natal Mortality Rate (NMR) Per 1000 live births | 52 BDHS 1993-94 | 41 BDHS 2004 | 37 BDHS 2007 | 30 | 22 |
| 3. Under Five Mortality Rate (U5MR) Per 1000 live births | 151 (1990) | 88 BDHS 2004 | 65 BDHS 2007 | 52 | 48 |
| 4. Maternal Mortality Ratio (MMR) Per 1000 live births | 574 (1990) | 320 BMMS 2001 | 290 | 240 | 147 |
| 5. % U5 underweight (6-59 months) | 67 (1990) | 47.5 BDHS 2004 | 46.3 BDHS 2007 | 34 | 33 |
| 6. % U5 stunted (24-59 months) | 54.6 BDHS 1996 | 43.0 BDHS 2004 | 36.2 BDHS 2007 | 30 | 25 |
| 7. Total Fertility Rate (TFR) | 3.4 BDHS 1993-94 | 3.0 BDHS 2004 | 2.7 BDHS 2007 | 2.2 | 2.2 |

| Indicators | Benchmark with reference period | Status | | Target |
|---|---|---|---|---|
| | | 2004 | 2007 | 2010 |
| **b) Output Indicators** | | | | |
| 8. TB Case Detection Rate (%) | 41.0 NTP 2003 | 46 NTP 2004 | 72 NTP 2007 | 75 |
| 9. TB Cure Rate (%) | 83.7 NTP 2003 | 85 NTP 2004 | 91.5 NTP 2007 | 95 |
| 10. % children (under 1 yr) fully immunized | 52.8 CES 1999/00 | 73 CES 2003 | 78 CES 2006 | 85 |
| 11. % of newborn protected at birth against tetanus | 83 CES 1995 | 86 CES 2003 | 93 CES 2006 | 95% |
| 12. % Children 1–5 receiving Vita-A supplements in last 6 months | 73.3 BDHS 1999-00 | 81.8 BDHS 2004 | 88.3 BDHS 2007 | >90% |
| **13. Utilization rate of ESD of the two Lowest Income Quintiles** | | | | |
| Totala) % of births attended by skilled personnel (by wealth | 12.1 (1999-06) | 13.4 | 17.8 | 50% |
| quintiles) Lowest Quintile | 3.5 (1999-06) | 3.3 | 5.2 (2006) | 3% increase |
| | 33.3 (1999-06) | 48.7 | 51.7 | 75 |
| Total b) % ANC by medically trained providers (by wealth quintiles) Lowest Q (% of Total) | 19.4 (1999-06) | 24.9 | 23.4 USED 2006 | 3% increase |
| 14. Contraceptive Prevalence Rate – CPR (modern methods) (%) | 43.4 (1999-06) | 47.3 | 47.5 | 72 (any) 60 (modern) |
| 15. % eligible coupls/women on long lasting birth control methods | 8.9 (1999-06) | 7.2 | 7.3 | 9.3 |

| Indicators | | Status/Target | | | |
|---|---|---|---|---|---|
| | | Benchmark with reference period | 2004 | 2007 | 2010 |
| **Component II: Meeting HNP sector challenges** | | | | | |
| 1. Tobacco usage among men and women aged 15+ (%) | 1. Smoking tobacco | NA | 20.9 | NA | 15% |
| | 2. Smokeless tobacco | | 19.7 | NA | 15% |
| 17. NCD strategy developed and implemented as per details in RFW | | Nil | Nil | Strategy developed & approved | Implemented & indicators identified |
| 18. Share of total government expenditure allocated to MOHFW expenditure | | 6.5% (2004) | 6.5% | 7.42% | 10% |
| **Component III: HNP sector modernization** | | | | | |
| **Budget Management** | | | | | |
| 19. Proportion of total MOHFW expenditure allocated to the 25% poorest districts | | NA | NA | NA | 40% |
| 20. MOHFW expenditure on medical and surgical requisites at districts and below | | NA | 9% | 5% (FY05/06) | |
| 21. % of MOHFW expenditure at upazila and below | | NA | 51% | 42% (FY05/06) | >50% |
| 22. % serious audit objections (part a of audit report) settled within the last 12 months | | NA | NA | 5% | 100% |
| Diversifying service provisions | | | | | |
| 23. HNP services commissioned to non -public providers by MOHFW | | | | | |
| **Decentralized planning** | | | | | |
| 24. Pilot on management autonomy in 6 district hospitals and 14 UHCs | | Nil | Nil | Nil | 6 district hospitals & 14 UHC |
| 25. Pilot LLP at 6 districts and its Upazilas and FY 2009 budget to reflect these pilots. | | Nil | Nil | Nil | 6 districts & Upazilas below |
| **Demand side financing** | | | | | |
| 26. % of women targeted by voucher scheme delivered by SBA (at facility or home) | | NA | NA | NA | |
| **Aid Management** | | | | | |
| 27. # of DPs reporting their planned expenditure on HNP sector (annually) | | NA | NA | NA | 100% |
| 28. # of DPs reporting their actual expenditure on HNP sector (quarterly) | | NA | NA | NA | 100% |
| **Procurement** | | | | | |
| 29. % of contracts awarded within initial bid validity period: a) For NCB b) For ICB | | | | | 90% |
| **Monitoring and Evaluation** | | | | | |
| 30. MIS (Health & FP) delivering management information to agreed specifications | | | | | |
| a) Coverage of disease profile preparation by upazila and district health facilities | | NA | NA | 50% | 100% |
| b) % Districts with Disease Surveillance Reports | | NA | 52% in 2006 | 56.5% | 100% |

| Indicators | Unit of measurement | Benchmark with reference period | Present Status | | Projected Target |
|---|---|---|---|---|---|
| | | | 2004 | 2007 | 2011 |
| 1. Infant Mortality Rate (IMR) | It is a measure of the frequency of occurrence of deaths in a population of under 1 year of age in a given period | 94 (1990) | 65 BDHS 2004 | 52 BDHS 2007 | 37 |
| 2. Neo Natal Mortality Rate (NMR) | The number of neonatal (0-27 days) deaths per 1000 live births in a given period | 52 BDHS 1993-94 | 41 BDHS 2004 | 37 BDHS 2007 | 30 |
| 3. Under five Mortality Rate (USMR) | The number of deaths of children aged 0-4 years in a specified year per 1000 live births in that specified year | 151 (1990) | 88 BDHS 2004 | 65 BDHS 2007 | 52 |
| 4. Maternal Mortality Ratio (MMR) | Annual number of Maternal deaths per 100,000 live births | 574 (1990) | 320 BMMS 2001 | 290 MDG report 2007 | 240 |
| 5. Utilization rate of ESD of the Two lowest Income Quintiles | | | | | |
| a. % of births attended by skilled personnel disaggregated by wealth quintiles | It represents the percentage of all births attended by skilled health-care worker | 12.1 (1999/00) | 13.4 | 17.8 | 43% (3% increase for lowest Quintile) |
| b. % ANC by medically trained providers disaggregated by wealth quintiles | Percentage of women who used antenatal care provided by skilled health personnel for reasons related to pregnancy at least once during pregnancy, at least once during pregnancy as a percentage of live births in a given time period | 33.3 (1999/00) | 48.7 | 51.7 | 75% (3% increase for lowest Quintile) |
| 6. % children (under 1 yr.) fully immunized | Proportion of children age 12-23 months who received three doses of Oral Polio Vaccine (OPV), three doses of DPT and one dose each of BCG and measles vaccines before age 12 months | 52% CES, 1991 | 63% CES, 2003 | 75% CES, 2007 | 90% |
| 7. Elimination of Neonatal Tetanus | Less than 1(one case) per 1000 live births/years/districts | 2.1 (IEDCR 2000) | - | 0.04 ( WHO EPI Surveillance 2008) | <1 case |
| 8. Children immunization against Measles | % of 1-year old children immunized against measles | 52% MDG report 2007 | 69% CES-2003 | 81% CES-2007 | 90% |
| 9. Eradication of Poliomyelitis | There will be no child infected with wild polio virus | Zero cases (2001-2005) | 18 cases in 2006(National Polio & Measles Lab) | Zero cases 2007 | Zero cases |
| 10. Increase exclusive breast practice (complete 6 monthly) through awareness building | % of exclusive breast feeding practice | 36% (MICS) | | 43% (BDHSH 2007) | 50% |
| 11. Bed occupancy rate in UHC | Number of beds utilized | - | - | 72.56% | 80% |
| 12.UHC with proper MWM | Number of UHC implemented according to criteria | - | - | - | 100% |
| 13. Strengthened health service provision for Urban population through GOD | Number of Govt. Outdoor Dispensary providing adequate health service | - | - | 17 GODs | 34 existing GODs |

**ii) OP**



**ii) OP**

| Indicators | Unit of measurement | Benchmark with reference period | Present Status | | Projected Target | | |
|---|---|---|---|---|---|---|---|
| | | | 2004 | 2007 | 2008-09 | 2009-10 | 2010-11 |
| 1. Percentage o f children (under 1yr.) fully Vaccinated | % of children age 12-23 months who received three doses of Oral Polio Vaccine (OPV), three doses of DPT and one dose each of BCG and measles vaccines before age 12 months. | 52 CES , 1991 | 63 CES, 2003 | 75 CES, 2007 | 80 | 85 | 90 |
| 2. Children Vaccinated with BCG | % of 1 year children Vaccinated with BCG | 86 (CES 1991) | 95 (CES-2003) | 98 (CES-2007) | 99 | 99 | 99 |
| 3. Children Vaccinated with OPV | % of 1 year children Vaccinated with OPV | 62 (CES-1991) | 72 (CES 2003) | 94 (CES 2007) | 99 | 99 | 99 |
| 4. Percentage of newborn protected at birth against tetanus | A Children is considered born protected at birth against tetanus if the mother had necessary protection during his/her birth by receiving due doses of TT vaccination as per the schedule(mothers having 0-11 months old children surveyed) | 83 CES, 1995 | 86 CES, 2003 | 93 CES,2006 | 95 | 95 | 95 |
| 5. Children Vaccinated against measles | % of 1-year old children Vaccinated against measles | 52(1991) | 69(2003) | 81(2007) | 85 | 90 | 90 |
| 6. MCVI coverage | Number of districts with MCVI coverage> 90% | | | 42(2007) | 50 | 60 | 64 |
| 7. Non polio AFP rate | Non Polio AFP rate 2 per one lakh children below 15 year | 2.34 (2001) | 2.03(2003) | 3.25(2007) | 2 | 2 | 2 |
| 8. Oral Rehydration Therapy (ORT) | Percentage of under 5 children with Diarrheal diseases receiving ORT | 72 (2003) BDHS source | 72 BDHS | 85 BDHS | | | 90 |
| 9. Expansion of Facility based IMCI | No. of Upazila having facility based IMCI | 18 (2003) | | 274 | | | 460 |
| 10. Expansion of Community based IMCI | No. of Upazila having community based IMCI | Zero | | 15 | | | 103 |
| 11. % of women targeted by voucher scheme delivered by SBA (at facility or home) | Percentage of pregnant women delivering at home or facility attended by a skilled birth attended in DSF areas. | NA | 10% | 29% | 32% | 35% | 40% |
| 12. Met need for EOC | Percentage of deliveries with an obstetrics complications managed at GOB EOC facilities | 11% (2003) | 20% | 27% | 30% | 35% | 40% |
| 13. Health facilities with functional CmEOC | Health facilities with functional comprehensive EOC. Functional CmEOC means the health centers offering comprehensive EOC services following guidelines, medicines and requisite trained manpower is in place. | DH - NA UHC -NA | 56 77 | 59 105 | 59 132 | 59 162 | 59 200 |
| 14. ANC Coverage (facility based) | No. of women who used antenatal care provided by skilled health personnel for reasons related to pregnancy at least three during pregnancy. | 33.3 | 48.7 | 51.7 | 55 | 65 | 75 |

| Indicators | Unit of measurement | Benchmark with reference period | Present Status | | Projected Target | | |
|---|---|---|---|---|---|---|---|
| | | | 2004 | 2007 | 2008-09 | 2009-10 | 2010-11 |
| 1. Delivery conducted at facility | No. of normal deliveries conducted at GOB EDC facilities | NA | 2% | 6.69 | 8% | 10% | 12% |
| 2. Training on Medical Waste Management(MWM) | No. of UHCs with trained personnel on Health Care Waste Management | - | | | 133 UHC | 150 UHC | 125 UHC |
| 3. Waste handlers using safety gear | % of waste handlers using safety gear | - | - | - | 30% | 70% | 100% |
| 4. UHC with Disposal Pits | Number of UHCs having Disposal Pits | - | | 133 | 100 | 120 | 55 |
| 5. Out-Patient Services | Total number of patient treated in Out-Patient Department of UHC /UHFWC/USC | Health Bulletin 2007 of MIS, DGHS | | 23642512 | Increased by 2% | Increased by 2% | Increased by 2% |
| 6. In-Patient Services | Total number of patient treated in in-patient Department of UHC | Health Bulletin 2007 of MIS, DGHS | | 1345860 | Increased by 2% | Increased by 2% | Increased by 2% |
| 7. Caesarian section Rate | Number of C/S done among the pregnant women | NA | 1.50% | 2.20% | 3.50% | 5% | 7% |
| 8. Case fatality rate | Number of death among the complications treated | NA | 2.70% | 1.50% | 1% | <1% | <1% |
| 9. Correction of iron deficiency anemia by distributing iron and folic acid | % of school children screened for anemia and received treatment | 56% (save the children survey 2004) | | 35% | | | |
| 10.Prevention of dental carries | % of school children receiving dental care | 2% | | 2% | | | 5% |
| 11.Care seeking for ARI from trained provider | % of <b children taken to health facilities or trained provider | 20, BDHS | | 28 | | | 40 |
| 12.Total Patient served at UHC | Number of patient attended in UHC | - | - | - | Increase by 2% | Increase by 2% | Increase by 2% |

## Communicable Disease Control

i) National

| Indicators | Unit of Measurement | Benchmark( with year & data source) | Present Status | | Projected Target |
|---|---|---|---|---|---|
| | | | 2004 | 2007 | |
| i) Malaria & VBDC: 1. Malaria Specific Mortality | Malaria Death/1000 population at risk | 0.053 (2003,MIS/DC) | 0.046 | 0.032 | 0.026 |
| 2. Incidence of Malaria Cases | Incidence of Malaria Cases per 1000 population | 54654 (2003,MIS/DC) | 58773 | 52466 | 27327 |
| ii) Elimination of kala-azar : Number of Kala-azar cases / 10000 population at upazila level | Number of Kala-azar cases to less than 1 per 10000 population at upazila level | 3.06 (2003,DGHS) | 2.96 | 2.47 | 2.00 |
| iii. Elimination of Lymphatic Filarisis: Microfilaremia rate (%) among people at risk. | Microfilaremia rate to less than 1% among people at risk | 15% (2003,DGHS) | 6% | 4% | 2% |
| iv. Emergency Preparedn ess & Response : Number of disaster managed | Number of disaster managed annually. | NA (2003,DGHS) | - | 2 | Need based |
| v. Emerging & Re-emerging Diseases : Number of outbreak due to emerging and re-emerging diseases contained. | Containment of the number of outbreak due to emerging and re-emerging diseases annually. | NA (2003,DGHS) | 1 | 5 | Need based |
| vi. Avian Influenza : Number of outbreak due to avian influenza contained. | Containment of the number of outbreak due to avian influenza annually. | NA (2003,DGHS) | - | 1 | Need based |

## ii) OP

| Indicators | Unit of Measurement | Benchmark (with year & data source) | Present Status | | Projected Target | | |
|---|---|---|---|---|---|---|---|
| | | | 2004 | 2007 | 2008 - 2009 | 2009 - 2010 | 2010 - 2011 |
| **A. Malaria & VBDC:** | | | | | | | |
| 1. Confirmed Malaria Cases. | Number of confirmed Malaria Cases | 54653 (2003,M&PDC) | 58773 | 52466 | 144363 | 108272 | 72182 |
| 2. Falciparum Cases | Number of reported Falciparum Cases | 41356 (2003,M&PDC) | 46318 | 39425 | 98320 | 70500 | 50200 |
| 3. Case fatality rate due to Dengue | Case fatality rate (%) due to Dengue | 0.25 (2003,DGHS) | 1.24% | 0% | <1% | <1% | <1% |
| **B. Filarisis Elimination:** | | | | | | | |
| 1.Mass Drug Administration (MDA) | Number of district covered with MDA | 6 (2003,DGHS) | 10 | 17 | 20 | 25 | 34 |
| 2.District under STH | Number of district under STH program | NA (2003,DGHS) | - | - | 64 | 64 | 64 |
| **C. Kala-azar eliminat** | **ion :** | | | | | | |
| 1. Kala-azar cases | Number of reported Kala-azar cases | 6113 (2003,DGHS) | | | | | |
| **D. Emergency Preparedness and Response** | | | | | | | |
| 1. Health Personnel Trained on disaster management | Number of health personnel trained on disaster management | Nil (2003, DGHS) | - | 1000 | 2000 | 3500 | 5000 |
| **E. Emerging and Re-emerging Diseases** | | | | | | | |
| 1. Hand Hygiene in Hospital | Number of hospitals under hand hygiene initiative | Nil (2003, DGHS) | - | 1 | 20 | 50 | 500 |
| **F. Avian Influenza** | | | | | | | |
| Capacity building of health related personnel regarding Avian Influenza | Number of health personnel trained on management prevention and control of Avian Influenza. | Nil((2003, DGHS) | - | 1000 | 2000 | 3500 | 5000 |

## Micobacterial Disease Control

**National & OP**

**National Tuberculosis Control Program**

| Indicator(s) | Unit of Measurement | Benchmarks (with) Year and Data Source) 2002 | Projected Target | | |
|---|---|---|---|---|---|
| | | | Mid-2003 (Projected) | Target for Mid-2006 | Target for Mid-2010 |
| (1) | (2) | (3) | (4) | (5) | (6) |
| Case Detection Rate | Percentage of smear positive TB cases detected among 100,000 population | 34% | 41% | 65% | 75% |
| Cure Rate | Percentage of smear positive cases cured among the smear positive cases detected | 84% | 84% | 85% | 95% |
| Number of DOTS Center | Number of cases under treatment/10000 pop. | 525 | 534 | 654 | 800 |

## Achievements (In quantitative and qualitative terms) future plan:

| Sl.No. | Major Activities | Achievements | Future Plan(upto2010) |
|---|---|---|---|
| 01. | TB case detection rate | 72% | Sustain over 70% |
| 02. | TB treatment success rate | 92% | Sustain over 85% |
| 03. | Capacity building for health managers and field level staff | 24618 | 250000 |
| 04. | Management of drug resistant TB cases | DOTS-Plus committee is functioning. DOTS-Plus manual has been developed. | MDR Drugs are ready for 50 patients for 1st year. Total700 pts for next five years. |
| 05. | Continuity of Advocacy, Communication and Social mobilization(ACSM) | Community involved with Public Private Partnership | Strengthening of ACSM activities |
| 06. | Linkages with the NASP-NGO with NTP to function TB-HIV co-infection | Collaboration meeting, workshop activities done | Involvement of other organization working with HIV/AIDS |
| 07. | Involvement of Govt. field staff, Private Medical Practitioner, cured TB patients, Sasto Sebika, Village Doctors and other Health Volunteers for providing DOTS | Case detection and success rate increased. | For achieving the MDG target |
| 08. | PPM | Case detection and success rate increased. | For achieving the MDG target. |
| 09. | TB Control in Special situation (Work places, prison, Refugees. | Case detection and success rate increased. | For achieving the MDG target. |

## Performance of National Tuberculosis Control Program Period – July 2007 to June 2008 OP Components with Outputs, Indicators and Annual Targets

| Sl No. | Activity | Target | Achievement | Comment |
|---|---|---|---|---|
| 1. | **Case Detection among suspects (SS).** | 1,44,975 | 1,04,517 (72 %) | |
| 2. | **ACSM** | Material development, printing, airing and displaying of ten different items | All materials developed, printing order given, airing planned and display started . | By the 2nd week of August 100% will be done. |
| 3. | **Treatment success** | e" 90% | 92% | 100% Achieved. |
| 4. | **Training** ( Modular Management Training , data management, Field level worker, Factory Worker, Graduate and Non-graduate PP, Govt. doctors trainings) | 65,000 | 67408 (105%) | 17 different courses at different level |
| 5. | **Training modules** | Revision of management, Lab-Technology, TB-HIV and MDR-TB | Finalized and under printing. | |
| 6. | | Medicines and other MSR items of Tk. 744.00 (Eleven crore forty lakh) | Medicines and other MSR items of Tk. 3,32,33,000.00 (Three crore thirty two lakh thirty three thousand) have been procured | 87% achieved Rest of the things is under process. |
| 7. | **Procurement Medicine and others Equipment Digital X-ray Photocopier machine** | 4 digital X-ray 44 Photocopier machine | 4 digital X-ray 44 Photocopier machine procured | 92% 100% 100% |

| Sl No. | Activity | Target | Achievement | Comment |
|---|---|---|---|---|
| 8. | Computer | 125 computers | 125 computers procured and distributed in 64 districts. | 100% |
| 9. | TB rela ted report and publication | Annual Report of 2007 and 2008, Quarterly Report (4 Quarter) to be published | Annual Report of 2007<br>Quarterly Report 1st, 2nd and 3rd of 2008 | 70% completed |
| 10. | Research and Survey | 15 Operational Research | 15 Operational Research is underway | 70% progressed |
| 11. | Supervision and Monitoring | 703 DOT Centre<br>Monitoring meetings<br>64 Quarterly meeting | National, Divisional, District and Urban teams did monitor 630 DOT Centers<br>5 divisional annual meetings completed.<br>64 Quarterly meeting completed | 90% DOT Centre<br>95%<br>100% |
| 12. | National Strategic Plan | Development and Printing | Developed, Printed and Disseminated. | 100% completed |
| 13. | External Quality Assurance center | Establishment | 22 Established | |

**National Leprosy Elimination Program:**

| | Indicator(s) | Unit of Measurement | Benchmarks (with Year and Data Source) 2006 | Projected Target | | |
|---|---|---|---|---|---|---|
| | | | | Mid-2007 (Projected) | Target for Mid-2008 | Target for Mid-2010 |
| 1 | Sustaining Leprosy Elimination at the national level and reducing the new cases at least 10% per year. | Number | 0.33/10,000 | 0.31/10,000 | 0.28/10,000 | d"0.20/10,000 |
| 2 | No. of districts/ metropolitan cities with Leprosy prevalence <1/10,000 population | Number | 06 | 5 | 3 | 0 |
| 3 | Visible disability ( grade-2 ) | Percentage of newly detected cases with visible deformity | 8.36% | 10.38% | <9.00% | <5% |

## Health Education and Promotion

**i) National**

| Indicators(s) | Unit of Measurement | Benchmark (status in 2003 and source) | Present Status | Projected Target Mid - 2011 |
|---|---|---|---|---|
| Reducing Maternal Mortality | Proportion of births attended by skilled health personnel | 15.5 %<br>(BDHS 2004) | 18.00 %<br>(BD HS 2007) | 43 % |
| | Maternal deaths per 1000 live births | 3.2<br>(BMMS,2001) | 2.75<br>(ESD, HS 2005) | 2.4 |
| Reducing Infant and Under-Five Mortality | Infant deaths per 1000 live births | 65.0<br>(BDHS,2004) | 52<br>(BDHS 2007) | 37 |
| | Deaths in children under 5 per 100 0 live births | 88.0<br>(BDHS,2004) | 65<br>(BDHS 2007) | 52 |
| Reducing Malnutrition | Percentage of underweight children age 6 to 59 months (weight-for-age Z- score <-2) | 50.9% (Child Nutrition Survey of Bangladesh 2000) | 46.3 %<br>(BDHS 2007) | 36 % |
| | Percentage of severely underweight children age 6 to 59 months. | 12.9% (Child Nutrition Survey of Bangladesh 2000) | 10.9<br>(BDHS 2007) | < 2 % |
| Prevention and Control of Major Non Communicable Diseases | Prevalence of Smokeless Tobacco use in adults | 20.9 %<br>(WHO,2004) | N/A | 15% |
| | Prevalence of smoking in adults | 19.7 %<br>(WHO,2004) | N/A | 15% |
| | Increase screening for Early Detection of Cancer (Cervix, Breast & Oral Cancer) through Self Examination | N/A | N/A | 30% of the eligible women |
| | Detection of Hypertension with awareness raising | N/A | N/A | 20 % |

**ii) OP Component:**

All components of HEP developed in support of HNPSP as well as to achieve projected target of National Health Indicators. Therefore all components of HEP will contribute to the achievement of National targets.

| OP Component | Output | Objectively Verifiable Indicator/Target | 2003-2004 Target | 2004-2005 Target | 2005-2006 Target | 2006-2007 Target | 2007-2008 Target | 2008-2009 Target | 2009-2010 Target | 2010-2011 Target |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity Building and Logistic Support of BHE | BHE Strengthened. | HEP Manpower recruitment / capacity development of the BHE personnel. | | | 20% of the L.Conslt. | 20% of the L.Conslt. | 20% of the L.Conslt. | 20% of the L.Conslt. | 20% of the L.Conslt. | 20% of the L.Consl. |
| Technical Assistance | BHE Strengthened. | HEP Manpower recruitment / capacity development of the BHE personnel. | | | 20% of the L.Conslt. | 20% of the L.Conslt. | 20% of the L.Conslt. | 20% of the L.Conslt. | 20% of the L.Conslt. | 20% of the L.Conslt. |
| Survey, Monitoring and Evaluation of HEP. | Innovative HEP program designed, implemented and evaluated in order to empower the community to protect their health, improve nutritional status and prevent disease and provide systems response by extensive services | General population specially women, children, adolescent and other susceptible groups effectively informed and empowered to choose beneficial health behaviors and become aware of their rights to get services and demand them. | 10% planned (of the target population) | 25% planned (of the target population) | 30% planned (of the target population) | 40% planned (of the target population) | 50% planned (of the target population) | 70% planned (of the target population) | 90% planned (of the target population) | 100% planned (of the target population) |
| Health Education Strategy Development | Innovative HEP program designed, implemented and evaluated in order to empower the community to protect their health, improve nutritional status and prevent disease and provide systems response by extensive services | General population specially women, children, adolescent and other susceptible groups effectively informed and empowered to choose beneficial health behaviors and become aware of their rights to get services and demand them. | 10% planned (of the target population) | 25% planned (of the target population) | 30% planned (of the target population) | 40% planned (of the target population) | 50% planned (of the target population) | 70% planned (of the target population) | 90% planned (of the target population) | 100% planned (of the target population) |

| OP Component | Output | Objectively Verifiable Indicator/Target | 2003-2004 Target | 2004-2005 Target | 2005-2006 Target | 2006-2007 Target | 2007-2008 Target | 2008-2009 Target | 2009-2010 Target | 2010-2011 Target |
|---|---|---|---|---|---|---|---|---|---|---|
| Media Campaign and Transmission for HEP. | Innovative HEP support provided for the prevention and control of communicable & non-communicable diseases and malnutrition (Polio, TB, Leprosy, STD/AIDS, Diabetes, Hypertension, Cancer, Tobacco/Drug abuse, Malnutrition: PEM & micro-nutrient deficiencies | Proper health care of individuals especially mother, adolescent and children.<br><br>Increased understanding of the vulnerable groups about nature of diseases and of feasibility of prevention, control, and cure. | 15% (of the household) | 20% (of the household) | 30% (of the household) | 40% planned (of the target population) | 50% planned (of the target population) | 70% planned (of the target population) | 90% planned (of the target population) | 100% planned (of the target population) |
| Production, distribution & display of IEC materials | Innovative HEP support provided for the prevention and control of communicable & non-communicable diseases and malnutrition (Polio, TB, Leprosy, STD/AIDS, Diabetes, Hypertension, Cancer, Tobacco/Drug abuse, Malnutrition: PEM & micro-nutrient deficiencies | - Proper health care of individuals especially mother, adolescent and children.<br><br>Increased understanding of the vulnerable groups about nature of diseases and of feasibility of prevention, control, and cure. | 15% (of the household) | 20% (of the household) | 30% (of the household) | 40% planned (of the target population) | 50% planned (of the target population) | 70% planned (of the target population) | 90% planned (of the target population) | 100% planned (of the target population) |
| Strengthening of IPC (supported by relevant printed materials). | - Increased awareness of the community on health promotion and extended strong social commitment<br><br>- Strengthened positive attitude of the | - Increased participation of the opinion leaders in the delivery of health services<br><br>- Increased understanding of the vulnerable groups about nature of diseases and of | 5% (of the target population)<br><br>10% (of the vulnerable groups) | 10% (of the target population)<br><br>20% (of the vulnerable groups) | 20% (of the target population)<br><br>30% (of the vulnerable groups) | 30% (of the target population)<br><br>40% (of the vulnerable groups) | 40% (of the target population)<br><br>50% (of the vulnerable groups) | 70% (of the target population)<br><br>70% (of the vulnerable groups) | 90% planned (of the target population) | 100% planned (of the target population) |

| OP Component | Output | Objectively Verifiable Indicator/Target | 2003-2004 Target | 2004-2005 Target | 2005-2006 Target | 2006-2007 Target | 2007-2008 Target | 2008-2009 Target | 2009-2010 Target | 20102011 Target |
|---|---|---|---|---|---|---|---|---|---|---|
| | service providers towards users of comprehensive services. | feasibility of prevention, control, and cure. - Service providers provided more empathetic and client oriented services. | 10% (of the Program Managers) | 15% (of the Program Managers) | 20% (of the Program Managers) | 30% (of the Program Managers) | Managers) 40% (of the Program | Managers) 70% (of the Program | | |
| Strengthening of inter-sectoral collaboration | Strengthened multi-sectoral and private sector activities in support of health promotion | Different coordination & advocacy meeting for the relevant Government & Non-government Organizations held. | 30% (among the relevant agencies) | 40% (among the relevant agencies) | 50% (among the agencies) relevant | 60% (among the agencies) relevant | 70% (among the agencies) relevant | 80% (among the agencies) relevant | 90% (among the agencies) relevant | 100% (among the agencies) relevant |

## Improved Hospital Services Management

### i) National

| Indicator(s) | Unit of Measurement | Benchmark (Status in 2003 and data source) | Present Status | Projected Target Mid-2011 |
|---|---|---|---|---|
| Maternal death rate | Maternal death per 1,000 live births. | 3.2 (BMMS 2001) | 2.75 | 2.4 |
| Infant mortality rate | Infant death per 1000 live birth | 65 (BDHS 2004) | 52 (BDHS 2007) | 37 |
| Under 5-mortality rate | Death in children under 5 year per 1000 live birth | 88 (BDHS, 2004) | 65 (BDHS 2007) | 52 |
| Proportion of birth attended by skilled health personnel | Percentage of deliveries attended by skilled person | 15.5% (BDHS 2004) | 18% (BDHS 2007) | 43% |

### ii) OP

| Indicator(s) | Type of Indicator | Unit of Measurement | Benchmark (Status in 2003 and data source) | Present status | Projected Target -Mid 2011 |
|---|---|---|---|---|---|
| Continuation of public sector hospital services | | | | | |
| # of hospitals provided pay and allowance of the officers and staff | Input | # of District hospitals | 7 (AOP of LD.Hosp. -02-03) | 7 | |
| # of DH, MCH and specialized hospitals provided recurrent cost. | Input | # of DH, MCH & # of Specialized hospital. | 21 (AOP of LD.Hosp. -02-03) | 21 | 30 |
| # of DH, MCH and specialized hospitals provided budget for repair and maintenance. | Input | # of DH, MCH & # of Specialized hospital. | 21 (AOP of LD.Hosp. -02-03) | 21 | 30 |
| # of DH, MCH and specialized hospitals provided recurrent & capital cost. | Input | # of DH, MCH & # of Specialized hospital/Activities. | 13 (AOP of LD.Hosp. 02-03) | 38 | 116 |

| Indicator(s) | Type of Indicator | Unit of Measurement | Benchmark (Status in 2003 and data source) | Present status | Projected Target Mid -2011 |
|---|---|---|---|---|---|
| # of coordination meeting held at Ministry/Cost center level | Process | # of coordination meeting held | no | no | 8 |
| **Introduction of standard waste management at selected district hospital** | | | | | |
| Number of hospitals introduced standard in-house waste management | Output | Number of Government hospitals introduced standard waste management. | 1(one) District hospital (AOP of LD.Hosp.-02-03) | 4-MCH, 3_Spec, and 13-District hospital | 46-DH, 14-MCH, 10-Spcl Hosp. |
| **Piloting and rollout of Referral procedure at selected District Hospitals** | | | | | |
| # of district introduced structured referral system. | Output | # of District Hospital | Nil | Piloting is going on in 3-DH & 2 -MCH | 30 District |
| **Strengthening of Women and Baby friendly hospital** | | | | | |
| # of hospital providing services as women friendly hospital. | Output | # of district hospital. | Nil | 4-DH & 3-Upazilla Hospitals | 21-District Hospitals |
| # of hospital providing services as Baby friendly hospital. | Output | # of Medical college Hospital and # of district hospital. | 13-MCH, 59 DH Bangladesh Breast Feeding Foundation (2003) | 13-MCH, 59-DH | 14-MCH, 59-DH |
| **Action plan for Hospital based EOC and Gender sensitivity** | | | | | |
| # of hospital developed EOC micro plan. | Process | # of district hospitals | 42-DH UNICEF (2004) | 42-DH | 52 DH |
| # of DH & MCH Strengthened for EOC services | Input | # of district hospitals, MCH | -- | 14-MCH, 59 -DH | 14-MCH, 59 DH |
| # of hospital service provider developed gender sensitivity | Output | # of district hospitals, MCH | -- | 4-District Hospital | 21-District Hospital |
| Hospital based Eye care (Sight Saver International) | | | | | |
| **This program is supported by the OP (National Eye Care)** | | | | | |
| **Strengthening of National Electro Medical Workshop (NEMEW)** | | | | | |
| Equipment repaired / installed | Output | # of X-ray machine/ film processor/air coo ler/dental equipment repaired | - | - | As per demand of Govt. Hospital |
| Capacity developed for medical equipment repair of concerned personnel | Process | # of batch trained | Nil | Nil | 18 |
| **Hospital Accreditation and Medical Audit** | | | | | |
| Document review and upgradation for the improvement of process (Registration, renewal, monitoring of private clinics, hospitals and lab.) | Process | # of checklist upgraded | Previously developed checklist | Upgraded of 4 -Checklist | 6-Document |
| Draft proposal prepared & introduced hospital accreditation system in Bangladesh for Pvt. Clinics/ hospital/Laboratories. | Process | # of workshop conducted | Nil | Document developed and send to MOH&FW for approval | 1-Document |
| # of orientation completed for the service providers working at Private hospital, clinics. Laboratory on registration, renewal, monitoring, hospitals, lab and QA. | Input | # of orientation conducted | Nil | Service providers are oriented in 6 Division | 10institution |



| Indicator(s) | Type of | Unit of Measurement | Benchmark | Present status | Projected Target |
|---|---|---|---|---|---|

| | Indicator | | (Status in 2003 and data source) | | Mid -2011 |
|---|---|---|---|---|---|
| # of DH personnel developed knowledge on Clinical governance | Output | # of District Hospitals | Nil | Service providers are oriented in 9-DH & MCH | 25 –District Hospital |
| Orientation of the service providers, development of toolkits and finally piloting of the hospital risk management program | Output | # of District Hospitals & MCH | Nil | Developed toolkits an piloting started in 2-DH & 2MCH | 10-DH & 10 -MCH |
| # of DH introduced QA program | Output | # of District Hospitals | 5-DH (June -03,QA cell, DGHS) | 1-DH under piloting program | 20–DH |
| **Strengthening of TEMO** | | | | | |
| # of Different type of vehicle repaired | Output | # of vehicle repaired | Nil | 255 | 465 |
| **Strengthening of Artificial limb replacement workshop at NITOR** | | | | | |
| **Program Completed** | | | | | |
| **Specialized Clinical services (Reconstructive surgery) at NITOR & Burn unit-DMCH** | | | | | |
| Specialized clinical services provided to the patient ( NITOR part)) | Output | # of reconstructive surgery provided by the hospital | Nil | 530 | 1430 |
| Specialized clinical services provided to the patient through holding camp ( DMCH part)) | Output | # of camp | Nil | 52-camp | 1350 |
| **Strengthening of Maternal & Child Health at secondary and tertiary level Hospitals** | | | | | |
| # of Support provided to secondary and tertiary level hospital for MCH Care. | Input | Number of DH and MC Provided MSR Support | Nil. | 6 | 59-DH |
| | | Number of MCH and District Hospital provided equipment for MCH Care. | Nil. | - | 14-MCH |
| **Strengthening of Rheumatic fever and Heart Diseases institution** | | | | | |
| # of services providers are trained for capacity development those who treating rheumatic fever patients | Output | Number of batch oriented | Nil | 2 batch | 21 batch |
| Amount of budget are expenses for acquisition of assets and medicine support for improvement of patient care | Input | Number of instrument/equipment supplied | Nil. | Nil | 100% |
| **Support provided to Non-government organization (BSMMU, Ahsanea Mission Cancer Hospital, NHF,NKF, SH-Khulna , OSH-Denajpur, SH-Dhaka, RCH-Jessore etc)** | | | | | |
| # of Institution provided support | Output | # of institution | Nil | 2-Institution | 6-Institution |
| **Establishment of Central Medical Gas Pipe line and Suction unit at Secondary & Tertiary level hospital** | | | | | |
| # of hospitals provided with medical gas pipe line | Output | # of Hospital | Nil | 1 (One) | 10 (Ten) |
| **Strengthening of Postmortem services at DH** | | | | | |
| # of hospital strengthened for postmortem services | Output | # of District Hospital | Nil | Nil | 59-DH |
| **Establishment of Poisoning management at Secondary & Tertiary level hospital** | | | | | |
| # of hospital strengthened for poisoning management services | Output | # of Hospital strengthened | Nil | Nil | 59-DH |
| **Support provided to Government Secondary level hospital, who are giving autonomy** | | | | | |
| # of hospital strengthened | output | # of Hospital strengthened | Nil | Nil | 6 |

| Indicators(s) | Unit of Measurement | Benchmark (Status in 2003 and Data Source) | Present Status | Projected Target Mid -2011 |
|---|---|---|---|---|
| Detection of Hypertension with awareness raising | Detection rate | NA | NA | 20% |
| NCD prevention Strategy Developed and Implemented (Strategy Developed) | Strategy Development stage | NA | Strategy Developed | Developed Strategy is in full implementation |



## Alternative Medical care

### i) National

| Impact/Outcome Indicators(s) | Unit of Measurement | Benchmark (Status in 2003 and data Source) | Present status | Projected target Mi20011 |
|---|---|---|---|---|
| Treatment coverage with AMC | % of population provided with AMC treatment. | 31% (Study conducted, WHO 2001). | About 10%(2007-08) (Average AMC Service Delivery) | About 32% (Total AMC Service Delivery) |

### ii) OP

| Impact/Outcome Indicators(s) | Unit of Measurement | Benchmark (Status in 2003 and data Source) | Present status | Projected target Mid-20011 |
|---|---|---|---|---|
| 1. Evaluation of AMC Service delivery | No. of Evaluation | - | 3 | 9 |
| 2. Survey of AMC services | No. of survey to be conducted | - | 3 | 9 |
| 3. Service providers skill Development | No. of workshop No of orientation | - | 46 | 90 |
| 4. Fellowship for PG studies | No. of person provided with fellowship. | - | 01 | 24 |
| 5. Procurement of Medicine & Medical Requisites. | No. of Institutions provided with Medicine & Medical Requisites. | - | 49 Institutions | 64 |
| 6. Overseas Training. | No. of Overseas Training conducted. | - | - | 20 |
| 7. District Hospitals providing AMC Services. | No. of District Hospitals | - | - | 64 |
| 8. Establishment of Graduate College. | No. of Graduate College to be processed. | - | - | 3 |
| 9. Establishment of Registration Council. | No. of Registration Council established. | - | - | 3 |
| 10. Preparation of AMC Pharmacopoeia | No. of Pharmacopoeia | - | 03 (1st part) | 3 |
| 11. Creation of herbal garden at central level | No. of herbal gardens | - | - | 1 |
| 12. Establishment and functioning of research unit of GUADCH & GHDCH. | No. of institutions | - | - | 3 |

## Public Health Interventions and Non Communicable Disease Control

### i) National

| Indicators(s) | Unit of Measurement | Benchmark (Status in 2003 and Data Source) | Present Status | Projected Target Mid -2011 |
|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) |
| Smokeless Tobacco use in adults | Prevalence | 20.9%(WHO 2004) | NA | 15% |
| Smoking in adults | Prevalence | 19.7%(WHO 2004) | NA | 15% |
| Screening for early detection of Cancer(Cervix, Breast and oral) through self examination | Percent of eligible women | NA | NA | 30% |

## ii) OP

| Indicators(s) | Unit of Measurement | Benchmark (Status in 2003 and Data Source) | Present Status | Projected Target Mid-2011 |
|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) |
| Percentage of Good Practice Factories | Percent of Factories | Not known | 10% | 20% |
| Mass awareness development on EOH | Percent of workers | Not known | 10% | 25% |
| Capacity development on Occupational Health Safety | Percent of workers | Not known | 10% | 20% |
| Trained on Care for Senior Citizen. | Number of Upazilla covered | N/A | 25% | 40% |
| Improved Health care of Senior Citizen | Percentage of IHC SC | Not Known | 15% | 30% |
| Number of outdoor patients | Percentage of patients | 1,20,00,000 (8% a proximally of total population) | % | 5% |
| Doctors, Paramedics and health workers trained on all NCD, Arsenicosis, health hazards of senior citizen | No. of Upazilla covered | NA | 200 Upazilla | All Upazila |
| Arsenicosis Patient identified and Managed | No. of Pt. identified and managed | 15,000 (DGHS,DPHE 2003) | 24,389 | 100% patient identified and managed |
| Percentage of Good Practice Factories | Percent of Factories | Not known | 10% | 30% |
| Mass awareness developmenton EOH, Arsenicosis | Percent of workers Percent of People | Not known | 15% | 40% |
| Strengthen PHI | Strengthen No. of PHI | Not known | 1 | 3 |
| Modernization of Laboratory | Modernization of No. of Laboratory | None (IPH) Not yet | 1 | 8 |
| Strengthen Existing Laboratory | No, of Lab. Strengthened | None (IPH) | 1 | 8 |
| Updated Food Safety Laws | Up dated | None (IPH) | 1 | Up dated |
| Improved Health care of Senior Citizen | Percentage of IHC SC | Not Known | 15% | 30% |
| Action Against Women and Children | Percentage of People Developed Awareness | Not Known | 20% | 50% |
| Public Health Intervention | Percentage of People Developed Awareness | None | 2% | 20% |

### i) National

| Indicators | Unit of Measurements | Source | Benchmark2 | Projected Target | |
|---|---|---|---|---|---|
| | | | | Mid 2007 | Mid 2010 |
| HIV prevalence among sex workers | % | BSS | <0.5% (2001-02 | <0.5% | <0.5% |
| HIV prevalence among MSM | % | BSS | <0.2% (2001-02) | <0.2% | <0.2% |
| HIV prevalence among IDUs | % | BSS | <1.7% | <4.5% | <4.5% |

### ii) OP

| Indicators | | Unit of Measurements | Source | Benchmark2&3 | Achievement Mid 2007 | Projected Target Mid 2010 |
|---|---|---|---|---|---|---|
| **Activity 1: HIV prevention services to the most vulnerable groups** | | | | | | |
| % IDU who passively shared needles past week | | % | BSS | 65-80 | 60-78 | 30 |
| % of SW who used condom with last client | Brothel-based | % | BSS | 1.7-2.4 | 45.6 | 60 |
| | Street-based | % | BSS | 1.6-2.7 | 24-82 | 40 |
| | Hotel-based | % | BSS | 2.9-4 | 25-30 | 40 |
| Prevalence of active syphilis among sex workers | Brothel-based | % | Survey | 1.7-10.7 | 3.25 | 0.5-2.5 |
| | Street based | % | " | 6.2-7.5 | 7.1-10.1 | 3-4 |
| | Hotel based | % | " | 1.6-6.1 | 4.2-8.3 | 0.5-2 |
| Prevalence of active syphilis amonMale sex workers | | g % | " | 4.9-5.6 | 4.9-6.5 | 1.5-2.5 |
| **Activity 2: HIV prevention among the general population** | | | | | | |
| **% married men/ women who have ever heard of HIV** | | | | | | |
| Men | | % | DGHS | 50 | 81 | 95 |
| Women | | % | DGHS | 31 | 60 | 80 |
| **% general population who correctly identify all ways of preventing HIV transmission** | | | | | | |
| women | | % | DGHS | 7.2 | 29 | 55 |
| men | | % | DGHS | 18 | 31 | 95 |
| **Activity 4: To provide care and support services for people living with HIV/AIDS** | | | | | | |
| Medical personnel trained in HIV | | # of person | NASP progress reports | NA | 5455 | 75 |
| Health facilities with capacity to deliver care | | Number | NASP progress reports | NA | - | 50 |



| Indicators | Unit of Measurements | Source | Benchmark2&3 | Achievement Mid 2007 | Projected Target Mid 2010 |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| % of treatment of opportunistic infections | % | Health facility survey | NA | - | 75 |
| % of psychosocial support for PLWHA & their families | % | NASP progress reports | NA | - | 50 |
| % district hospital providing VCT | % | NASP progress reports | NA | | 50 |
| **Activity 5: To minimize the impact of the HIV/AIDS epidemic** | | | | | |
| Political commitment | # of policy adopted I updated for impact minimization | Special survey (API) | 1 | - | 4 |
| % of lawyers, industrialist, Journalist, teachers are aware and supportive to minimization of epidemic impact | % | Special survey | NA | | 50 |
| Number of people from infected and affected communities are trained for livelihood | % | Project progress reports | NA | | 1000 |
| **Activity 6: Capacity of NASP to coordinate the national multisectoral response-** | | | | | |
| Number of ministries incorporating HIV / AIDS issues into their plan/program | # of ministries incorporating HIV / AIDS issu es into their plan/program | NASP progress reports | 16 | 16 | 30 |
| Number of NGOs/private organizations brought under national level partnership forum | # of NGOs/private organizations brought under national level<br><br>partnership forum | NASP progress reports | 107 | 120 | 200 |

2 National HIV BSS report 2002
3 National HIV Surveillance report-6th round

## In Service Training

**i) OP**

| SL # | Indicators (s) | Unit of Measurement | Benchmark (with year and data source) | Projected Target | | |
|---|---|---|---|---|---|---|
| | | | | Mid 2005 | Mid 2008 | Mid 2010 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1 | 6 days ESP orientation training for auxiliary service providers | No | 150 | 750 | 1300 | 1300 |
| 2 | 21 days basic ESP training for field service Providers | No | 2306 | 6806 | 6806 | 6806 |
| 3 | 6 days training on improved financial management for Doctors | No | 169 | 569 | 969 | 1319 |
| 4 | 6 days training for doctors on violence against women and girls | No | 75 | 475 | 755 | 905 |
| 5 | 6 days training for nurses on violence against women and girls | No | 75 | 475 | 755 | 905 |
| 6 | Advanced programming on visual basic 6, SQL server for officer and staff. | No | 10 | 30 | 70 | 100 |

| SL # | Indicators (s) | Unit of Measurement | Benchmark (with year and data source) | Projected Target | | |
|---|---|---|---|---|---|---|
| | | | | Mid 2005 | Mid 2008 | Mid 2010 |
| 7 | Advanced training on computer networking windows 2000 (MCSE TRACT) exchange server for officer and staff. | No | 16 | 48 | 80 | 112 |
| 8 | Hardware training on computer operation for officer and staff. | No | 10 | 40 | 70 | 100 |
| 9 | Computer programming on visual ba sic, MS access, data analysis with SPSS, networking & windows 2000 for officer and staff. | No | 8 | 68 | 148 | 188 |
| 10 | 28 days basic computer training on operating system, installation, internet etc. for the persons of MOHFW, DGHS and autonomous institute. | No | 151 | 1051 | 1951 | 2251 |
| 11 | 5 days training on standard operating procedures (SOP) regarding IPD, OPD, OT, emergency, housekeeping, record keeping, nursing services, diagnostic services, etc. for service providers of primary, secondary and tertiary Hospitals includ ing monitoring an | No | 126 | 326 | 676 | 1076 |
| 12 | 15 days computer training on DMIS | No | 40 | 310 | 775 | 880 |
| 13 | Breast feeding counseling for health care providers (Doctors and Nurses) ( 6 days ) Including curriculum Review | No | 160 | 160 | 410 | 1060 |
| 14 | 6 month Training for Doctors on Anesthesia (EOC ) | No | | | 100 | 205 |
| 15 | One year Training Course on Diploma in Anesthesia (DA) and Diploma in Gyne & Obs (DGO) for Doctors | No | | | 10 | 10 |
| 16 | 6 month midwifery training for nurse-midwife including curriculum development | No | | 20 | 40 | 40 |
| 17 | Training for doctors on advanced ESP clinical skills from district, upazila and below on Reproductive health (21days) | No | | | 200 | 400 |
| 18 | Training for doctors on advanced ESP clinical skills from district, upazila and below on Child health care (14 days) | No | | | 300 | 600 |
| 19 | Training for Nurses and Paramedics on advanced ESP clinical skills from district, upazila and below on Child health care (7 days) | No | | | 300 | 600 |
| 20 | 5 days training on Asthma prevention and management for Medical graduates. Including curriculum Review | No | | 150 | 250 | 400 |
| 21 | 5 days training on Cancer awareness, screening and primary detection for doctors including curriculum development. | No | | 50 | 150 | 200 |
| 22 | Breast feeding counseling training for health care providers (HAs/Field service providers.) (3 days) | No | | 400 | 1200 | 1600 |

## Pre-Service Education

**i) National**

| Indicators | Unit of Measurement | Benchmark (Status in 2003) | Present Status | | Projected Target Mid - 2011 |
|---|---|---|---|---|---|
| | | | 2004 | 2007 | |
| 1. No of doctors | No. of doc. Produced<br>No. of doc. trained | 1200 | | 1650 | 13200 |
| 2. No of Technologist | No. of Tec. Produced<br>No. of Tec. trained | 400 | | 775 | 6200 |
| 3. No of Medical Asstt. | No. of Medical Asstt. Produced<br>No. of Medical Asstt. trained | 250 | | 675 | 5400 |

### ii) OP

| Indicators | Unit of Measurement | Benchmark (with year & data source) | Present Status | | Projected Target | | |
|---|---|---|---|---|---|---|---|
| | | | 2004 | 2007 | 2008-2009 | 2009-2010 | 2010-2011 |
| 1. Establishment of monitoring & evaluation mechanisms for HRD | No. of doctors | 350 | | 350 | | | 2800 |
| 2. Residential field side Training for 4th year Medical students | No. of students | 1400 | | 1400 | | | 11200 |
| 3. English language Training(ELT) for 1st year Medical & Dental students | No. of students | 1400 | | 1400 | | | 11200 |

## Procurement, Logistics and Supplies Management

### i) National

| Indictors(s) | Unit of Measurement | Benchmarks (With Year and Data Source) | Mid-2003 (Projected) | Target for Mid-2010 |
|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) |
| % of contracts awarded within initial bid validity period; a) For NCB b) For ICB | % of contracts signed within the initial bid validity period mentioned in the bid document. | | | 90% |

### ii) OP

| Indictors(s) | Unit of Measurement | Benchmarks with Year and Data Source | Present status | Projected Target | | |
|---|---|---|---|---|---|---|
| | | | | 2008-09 | 2009 - 10 | 2010-11 |
| No. of packages in procurement plan | No. of packages prepared by the CMSD as per the requirement submitted by different LDs | | Mention figure with year | 74 | 80 | 50 |
| No. Packages procured | No. of packages procured within the year | | | 11 | | |
| Goods cleared from port | Implementation of Road map of other LD's. How does it will be measured? | All the required goods are available. | | | | |
| Improvement of Distribution system | Percentage goods distributed to the users within 6 months of receiving. | Targets should be in percentage | | 50% | 40% | 10% |
| Capacity building related Indicator-Training/workshop on Procurement | | | | | | |

## Research and Development

### i) National

| Indicators(s) | Unit of Measurement | Benchmark (Status in 2003 and Data Source) | Present Status | Projected Target Mid-2011 |
|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) |
| No of trained health professionals | No of individual | 300 (1998-03) | 222 | 522 |
| No of research projects funded | Research Projects | 166 (1998-03) | 240 | 290 |
| Amount of research funded | Taka in lakh | - | | |
| No of Research Dissemination conducted | Dissemination workshop held | 9 (1998-03) | 3 | 33 |
| No of research contributing to policy and plan formulation | Number of policy guidelines based on research findings | - | - | 50 |
| No of journals published | No of journals | 30(1998-03) | 3 | 10 |

### ii) OP

| Indicators(s) | Unit of Measurement | Benchmark (Status in 2003 and Data Source) | Present Status (Status from 2003-2008) | Projected Target Mid-2011 |
|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) |
| **Research capacity strengthening** | | | | |
| No of person trained | No of individual | 300 (1998 -03) | 222 | 700 |
| **Research in Selected areas funded** | | | | |
| Nos. of Research proposal developed | No of Research Proposals | 515 (1998-03) | 300 | 500 |
| No of research projects funded | No of Research Projects | 166 (1998-03) | 240 | 490 |
| No of research studies completed | No of research studies | 146 (1998-03) | | 450 |
| **Dissemination of Research Findings** | | | | |
| No of Scientific Reports submitted | No of scientific reports | 146 (1998-03) | 0 | 450 |
| No of scientific conferences/ seminars/workshops conducted | No of trainings / seminars/ conferences | 9 (1998-03) | 11 | 30 |
| No of Journals, information bulletins etc. published | No of journals/ bulletins | 30 (1998-03) | 3 | 10 |

## Management Information System (MIS)

### i) Nationa

| Indicators (s) | Unit of Measurement | Benchmark (Status in 2003 and data source) | Present status (2008) | Projected Target Mid -2011 |
|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) |
| MIS (health) delivering management information to agreed specifications | | | | |
| a. Coverage of disease profile preparation by upazila and district health facilities | %of upazila and district health facilities in public sector from which disease profiles are received by MIS (health) | NA | 50% (MIS - health) | 100% |
| b. %Districts with disease surveillance reports | %Districts health facilities in public sector from which disease surve illance reports are received by MIS (health) | 52% (2006) (M&E Unit, MOHFW) | 56.5% (M&E Unit, MOHFW) | 100% |

### ii) OP

| Indicators (s) | Unit of Measurement | Benchmark (Status in 2003 and data source) | Present status (2008) | Projected Target Mid-2011 |
|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) |
| i. GR conducted | Report of GR published | Y2003: GR conducted but report not published<br><br>Y2004: Report published using data of 2002 (MIS health) | Y2008: GR conducted<br><br>but report not published | GR conducted in improved methodology followed by data<br>updating through routine home visits of health workers<br>and report published |
| ii. Coverage of disease profile preparation by upazila and district health facilities | %of upazila and district health facilities in public sector from which disease profiles are received by MIS (health) | NA | 50% | 100% |
| iii. %Districts with disease surveillance reports (bed occupancy, average length of hospital stay, # of outpatients, # of in-patients) | %Districts health facilities in public sector from disease surveillance reports are received by MIS (health) | 52% (2006) (M&E Unit, MOHFW) | 56.5% (M&E Unit, MOHFW) | 100% |
| iv. Web based PMIS developed | Web based PIMS is in operation | PMIS maintained in standalone computer | PMIS maintained in standalone computer | Web based PIMS is in operation covering all classes of public s ector health workforce and also major categories of private sector health workforce |
| v. Dynamic web portal | Dynamic web portal developed and content updated frequently | No web site | Static web site (June 2008) | Dynamic web portal present serving as information warehouse for health services |
| vi. Web based Logistic MIS (page -12) | Web based Logistic MIS developed and is in operation | Paper -based LMIS without routine update | Paper -based LMIS without routine update | Web based Logistic MIS developed and routinely updated at per iodic interval (2 months) |

| Indicators (s) | Unit of Measurement | Benchmark (Status in 2003 and data source) | Present status (2008) | Projected Target Mid-2011 |
|---|---|---|---|---|
| i. Information on OP performance of different LDs | No. of LDs whose reports on performance received | No such system | System started but inadequate reporting in some cases | 100% LDs will send report with adequate information on respectiv e OP performance at least annually based on national measurement indicator |
| ii. Printing of Health Bulletin, Year Book | Year Book and Health Bulletin published and distributed | No report | Year Book 2007 Health Bulletin (2007) | Year Book and Health Bulletin* (or ot her reports optional) published each year. Besides, computer printed quarterly reports "containing recommendations and to dos in addition to data and analysis" will be published |
| iii. Training and workshops (page -45) | No. of planned training/ workshops held | Not available | 5022 individuals trained | No. of the planned training/ workshops held |
| iv. Monitoring, supervision | Monitoring and supervision cell in place | No cell | Cell just started | Cell will continue and improved |
| v. Upazila Health Complex Health Line | Upazila Health C omplexes will be supplied mobile phone for tele -health service | Not Applicable | Not Applicable | Upazila Health Complex Health Line started and is in operation |
| *Name may be changed | | | | |

## Quality Assurance

### i) National

| Indicator(s) | Unit of Measurement | Be nchmarks (with year and data source) | Projected Target | |
|---|---|---|---|---|
| | | | Mid -2003 | Mid-2010 |
| (1) | (2) | (3) | (4) | (5} |
| 1. UHC functioning under QA Program | No of Upazila Health Complexes (UHC) | 26 UHC (QAP Records June, 2003) | | 242 UHC |
| 2. functioning under QA Program | No of District Hospital (DH) | 9 DH (QAP Records June, 2003) | | 35 DH |
| 3. Workshop for formulating accreditation process. | No of workshop at national level | Nil | | 5 workshops |
| 4. National steering committee meeting | No of workshop at national level | Nil | | 5 workshops |
| 5. Workshops on QA policy decisions and strategy development. | No of workshop at national level | Nil | | 10 ( Ten ) |
| 6. Consultative meetings with other organizations related to quality issues and organizations working (GO, Private & NGO) on health care quality. | No of meetings a t national level | Nil | | 10( Ten ) |
| 7. Workshop on finding out Medical audit and Benchmarking process. | No of meetings at national level | Nil | | 5 ( Five) |

**ii) OP**

| Indicator(s) | Unit of Measurement | Benchmarks (with year and data source) | Projected Target | |
|---|---|---|---|---|
| | | | Mid -2003 | Mid-2010 |
| (1) | (2) | (3) | (4) | (5) |
| 1. Awareness Workshop (AW) on QA Managers & Service providers | No. of Awareness Workshop conducted | District Hospital & Upazila Health Complexes( 35 + 297) out of 524 (QAP Records June, 2003) 332 | 332 | 192 +332=524 |
| 2. TOT on QA and SOP | No. Of TOT conducted | During HPSP period Training of Trainer (TOT) was completed in 140 District Hospital l& Upazila Health Complexes out of 524 (QAP Records June, 2003) | 140 | 216+140=356 |
| 3. Training of service providers of District Hospital & Upazila Health Complexes | No. of Training at District Hospital & Upazila Health Complexes | During HPSP period Training of Service Provider was completed in 35 District Hospital & Upazila Health Complexes out of 524 (QAP Records June, 2003) | 35 | 216+35=251 |
| 4. Service Provider of Health Facilities Practicing SOP's | No. of Health Facilities Practicing SOP's after getting AW, TOT & Training | 35 District Hospital & Upazila Health Complexes out of 524 (QAP Records June, 2003) | 35 | 216+35=251 |
| 5. Monitoring, Evaluation and supervision of the standards which are on implementation. | Continuous process | - | | |
| 6. Small scale yearly hospital and community based survey for finding out quality gaps and level of client satisfaction. | No. of surveys | | | 5 (Five ) |
| 7. Workshops on QA policy decisions and strategy development. | No. Workshops | | | 10 (Ten ) |
| 8. Consultative meetings with other organizations related to quality issues and organizations working (GO, Private & NGO) on health care quality. | No. Workshops | | | 10 (Ten ) |
| 9. Workshop on finding out Medical audit and Benchmarking process. | No of meetings at national level | Nil | | 5 (Five) |

## Sector Wide Program Management

**i) National**

| Indicators(s) | Unit of Measurement | Benchmark status in 2003 (with Data Source) | Present Status | Projected Target Mid-2011 |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1. Pilot on management autonomy in 6 district hospitals and 14 UHCs | No of autonomy initiated | Nil | Nil | 6 district hospitals and 14 UHCs. |
| 2. Pilot LLP at 6 districts and its Upazilas and FY 2009 budget to reflectthese pilots | No of district LLP initiated and budget reflected | Nil | Nil | 6 districts & Upazilas & below. |

**ii) OP**

| Indicators(s) | Unit of Measurement | Benchmark (Status in 2003 and Data Source) | Present Status | Projected Target Mid-2011 |
|---|---|---|---|---|
| 1 | 2 | 3 | 5 | 6 |
| 1. LLP workshop c onducted | No. of district LLP workshops completed | 64 (2003, CLC) | 63 workshop completed by 30th June 2008 | 64 district and 475 upazila workshop completed |
| 2. Upazila Plans prepared | No. of Upazila plans prepared. | 461 (2003, CLC) | 100 upazila plan prepared | 475-per year 80% of the plans to be completed by 31st march every year |
| 3. Community participation meeting held | No. of meetings held | 461 (2003, CLC) | 100 | 475 community participation meeting held by 15th March |
| 4. Local and Foreign training for capacity building on SWM. | No. of personnel trained | 284 | 284 | 80% of the training to be completed by February each year |
| 5. Data base development | Data base available | 1 (2003, CLC) | | 3<br>To be completed by May every year. |
| 6. Workshop /Seminar for Capacity Development of Health Personnel at different level in respect of Planning & Implementation. | No. of workshops completed | 0 | 42 | 80% to be completed April each Year |

## Human Resource Management

| Indicators(s) | Unit of Measurement | Benchmark (Status in 2003 and Data Source) | Present Status 2008 | Projected Target Mid-2011 |
|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) |
| Work force Planning | a. Number of personnel oriented in HR planning. | a. About 7000 | a. About 2000 personnel. | a. Refresher training for HR be continued. |
| | b.Establishing and utilizing a management information system (PMIS) | b. b. MIS been institutional | b. Steps has been taken to update all data | c. PMIS networking be completed by 2009. |
| Workforce Deployment | a. Revised recruitment rules | a. Nil | a. Completed | a. Recruitment rules revised |
| | | b. Available | b. Available | b. No. of vacancies are known, planning supported. |
| Improvement of capacity through training | a. Assessment of training needs for both technical and non-technical employees. | a. Nil | a. Study proposed | a. Assessment of training need will be in place by the end of 2009. |
| | b. No. of capacity building training including workshop / seminar / orientation / advocacy meeting locally and foreign arranged. | b. Management improvement training done | b. Management improvement training continue. | b. Capacity built and foreign training for 16 personnel be in plan by 2009. |

| Indicators(s) | Unit of Measurement | Benchmark (Status in 2003 and Data Source) | Present Status 2008 | Projected Target Mid-2011 |
|---|---|---|---|---|
| | c. No. of orientation on individual performance management arranged | c. 6 | c. 25 | c. Individual performance training continue till 2011. |
| | d. IPM module published | d. Nil | d. Final stage | d. Published by 2008. |
| | e. Management module for officer in plan | e. Nil | e. Final stage | e. Published by 2008. |
| | f. Office management Module for staff. | f. Nil | f. Preparatory Phases | f. Published by Feb. 2009. |
| Incentive Plan | a. Incentivepar in Plan | a. Nil | a. Steps been taken | a. Be completed by March 2009. |
| Training need assessment | a. Training need assessment plan. | a. Nil | a. Steps been taken | |
| Skill-mix | a. Skill mix plan in practice | a. In process | a. In process | Skill mix plan be completed by June 2009. |
| National consultant recruitment for career plan | a. Nil | a. Nil | a. Process stand | a. By January 2009 our national consultant recruited |
| Job description of Division & CS. office & UH & FO | a. Need to review | b. Committee formulated | c. Process started | a. By the end of 2009. |
| HR Support functions. | a. HR information made available and usable | a. Data storing, use, and study. | a. Minimum data available. | a. All information of the sector will be available and usable by 2009. |
| | b. HRM function strengthened | b. Process started | b. Process provided significant result. | b. HRM function improved status will be improved significantly by 2011. |
| | c. An effective co-ordination mechanism of human resources development established. | c .Nil | c. Coordination Committee has formulated. | c. Effective co ordination mechanism will be in place by 2009. |
| | d. Supplies of goods, materials and fund to be made available to employees for improving effectiveness. | d. Not satisfactory | d. Satisfactory | d. Effective supplies be ensured by 2010. |
| Performance Management | a. Individual performance Management institutionalized | a. Not done | a. Attempt been taken | a. By the end of 2010 institutionalized |
| | b. Reviewing, updating and preparing job description for all categories of employees. | b. Not clear | b. Partly completed | b. Job description for all categories of employees will be reviewed, updated and prepared by 2009. |

## Improved Financial Management

### i) National

| Indicators (s) | Unit of Measurement | Benchmark (Status in 2005 and Data Source) | Projected Target | |
|---|---|---|---|---|
| | | | Mid-2008 (20052008) | Mid-2011 (20052011) |
| ous audit objections(part of report) settled within the months | - | - | 5% | 100% |

ii) OP

| Indicators (s) | Unit of Measurement | Benchmark (Year 2005) | Projected Target | |
|---|---|---|---|---|
| | | | Mid-2008 (2005-2008) | Mid-2011 (2005-2011) |
| 1 | 2 | 3 | 4 | 5 |
| Workshop on awareness of financial rules &circular DDOs and staff Fresh and Refreshers 5days orientation training | No. of trainee 2550 persons | 120 persons | 33 batch @ 30 person per batch =990 persons | 85 batch @ 30 person per batch =2550 persons |

## Micronutrient Supplementation

i) National

| Indicators | Unit of Measurement | Benchmark(with year & data source) | Present Status | | Projected Target |
|---|---|---|---|---|---|
| | | | 2004 | 2007 | |
| (1) | (2) | (3) | (5) | (6) | (7) |
| Under 5 under weight(659 months) | % | 47.5 BDHS 2004 | # | 46.3 BDHS 2007 | 34 (2010) |
| Under 5 stunted | % | 43 BDHS 2004 | # | 36.2 BDHS2007 | 30 (2010) |
| Children 1-5 receiving VitA supplement. In last 6 months | % | 81.8 BDHS 2004 | # | 81.8 BDHS 2004 | >90% |

ii) OP

| Indicators | Unit of Measurement | Benchmark (Status in 2003 & data source) | Present Status | | Projected Target | | |
|---|---|---|---|---|---|---|---|
| Prevalence of Night Blindness | | | 2004 | 2007 | 2008-2009 | 2009-2010 | 2010-2011 |
| Rate of Vitamin-A supplementation | | | | | | | |
| Prevalence of Goiter (TGR) | | | | | | | |
| Families consume iodized salt. | | | | | | | |
| Prevalence of anemia among adolescent girls | % | 52.4 (2004) HKI | 43.5 (2007) HKI | | | | |
| Exclusive breast feeding rate up to Six months | % of <6 month babies | 37 UNICEF | | | | | |

## National Eye Care

i) National

| Indicator(s) | Benchmark with reference & source | Status 2004 | Projected Target | |
|---|---|---|---|---|
| | | | 2007 | 2011 |
| Component 1: Accelerating achievement of MDG/PRS outcomes | | | | |
| a) Impact / Outcome Indicators | | | | |
| Cataract Surgery for adult | Eye Care capacity assessment 2003 | 900/mil/year | 1150/mill/year | 1500/mill/ year |
| Cataract Surgery for children | Eye Care capacity assessment 2003 | 400/year | 1000/year | 2500/year |

**ii) OP**

| Indicator(s) | Benchmark with reference | Status 2004 | Projected Target | |
|---|---|---|---|---|
| | | | 2007 | 2011 |
| **Strengthening advocacy and coordination** | | | | |
| BNCB meeting | Eye Care capacity assessment 2003 | 02/yr. | 02 meeting | 02 meeting |
| Formation & functional of National Vision 2020 committee | Eye Care capacity assessment 2003 | Nil | 01 committee functioning | 01 committee functioning |
| Vision 2020 District Committee formation & functioning | Eye Care capacity assessment 2003 | 05 district committee | 05 districts | 60 districts |
| IEC materials | Eye Care capacity assessment 2003 | Nil at Govt. district level. NGOs have some IEC materials in their respective program districts | Nil | Poster billboard, leaflets in 64 districts |
| TV spots//Radio spool | Eye Care capacity assessment 2003 | 01 radio spool | 01 radio spool | 06 TV spot 12 Radio Spool |
| National/districts level observance of world sight day | Eye Care capacity assessment 2003 | Every year observe nationally. NGOs observing WSD in 20 districts | Every year observe nationally. NGOs observing WSD in 20 districts | Observe world sight day in 64 districts |
| Booklets containing eye care messages printed & distributed to the schools across the country | Eye Care capacity assessment 2003 | Nil | Nil | 01category of booklet developed & 1,00,000 copies printed & distributed among the primary schools across the country |
| National eye care policy developed, adopted, printed & circulated in line with the policy issues addressed in National Eye Care Plan | Eye Care capacity assessment 2003 | Nil | Nil | 01 policy document developed. 1500 copies printed & circulated. |
| **Planning and research** | | | | |
| Dist. toolkit for eye care | Eye Care capacity assessment 2003 | Nil | Nil | 01 toolkit developed for eye care |
| District eye care plan | Eye Care capacity assessment 2003 | Nil | Nil | 64 districts |
| Capacity assessment of eye care services in Bangladesh conducted, printed & circulated | Eye Care capacity assessment 2003 | 01 study report (Eye care capacity assessment report-2003) | 01 study report | 01 study |
| Development of Monitoring tools for eye care performance | Eye Care capacity asses sment 2003 | Nil | Nil | 03 monitoring tool |
| Publications on eye care | Eye Care capacity assessment 2003 | 02 publications per annum by NGOs | Nil | 2 publication per annum |
| Hospital service utility study for eye care | Eye Care capacity assessment 2003 | Nil | Nil | 01 study |
| Corneal ulcer & treatment pattern study | Eye Care capacity assessment 2003 | Nil | Nil | 01 study |

| Indicator(s) | Benchmark with reference | Status 2004 | Projected Target | |
|---|---|---|---|---|
| | | | 2007 | 2011 |
| Eye diseases pattern study for school children | Eye Care capacity assessment 2003 | Nil | Nil | 01 study |
| Study on pattern of Ocular trauma in Bangladesh | Eye Care capac ity assessment 2003 | Nil | Nil | 01 study |
| Training need assessment of 03 categories of eye service providers (Doctor, MLEP, PEC) in order to provide quality eye care services | Eye Care capacity assessment 2003 | Nil | Nil | 01 |
| Review & revision of the training manuals for the Doctors , Nurses and Field Workers | Eye Care capacity assessment 2003 | Nil | Nil | 03 |
| Training manuals for Low vision Technician, Bio Medical Technician and Counselor | Eye Care capacity assessment 2003 | Nil | Nil | 03 Nos |
| Standard protocol for modified day care cataract surgery | Eye Care capacity assessment 2003 | Nil | Nil | 01 nos |
| Development of Standard protocol for Ocular examination | Eye Care capacity assessment 2003 | Nil | Nil | 01 Nos |
| **Special Activities for eye care** | | | | |
| Establishment of Eye OT&OPD developed at district hospitals | Eye Care capacity assessment 2003 | 05 district hospital having eye OT & OPD facilities | 05 district hospitals having eye OT & OPD facilities | 54 district hospitals having eye OT & OPD facilities |
| Establishment of Pediatric ophthalmic facilities (OT & OPD) at tertiary level hospitals | Eye Care capacity assessment 2003 | 05 secondary /tertiary level hospitals having pediatric ophthalmic unit | 05 secondary /tertiary level hospitals having pediatric ophthalmic unit | 16 MCH |
| Patient Screening Camp for identification of Cataract Patients | Eye Care capacity assessment 2003 | Nil | Nil | 80 |
| Sight Testing for Primary level student | Eye Care capacity assessment 2003 | Nil | Nil | 200 |
| Vouchering scheme for cataract surgery | Eye Care capacity assessment 2003 | Nil | Nil | 1500 |
| Refraction service in district/Upazila Hospital | Eye Care capacity assessment 2003 | Nil | Nil | 59 DH and 153 UHC |
| Providing special eye care on Childhood blindness at 4 tertiary level eye care institute (GO/NGO) -Establishing the centers by procuring & supplying the equipment | Eye Care capacity assessment 2003 | 01 tertiary hospital having facilities for childhood blindness prevention | 01 tertiary hospital, facilities for childhood blindness prevention | 04 tertiary level hospitals |
| **Procurement and supply of capital equipment/vehicles etc.** | | | | |
| Supply/replacement of eye equipment at District hospital | Eye Care capacity assessment 2003 | 59 DH (partial) | 06 Dh complete | 46 DH complete |
| Procurement of vehicles for conducting field visits & mobile eye camp | Eye Care capaci ty assessment 2003 | Nil | Nil | 04 |
| Installation of land phone & fax for LD office | Eye Care capacity assessment 2003 | Nil | Nil | 3 land phone & 01 fax |

| Indicator(s) | Benchmark with reference | Status 2004 | Projected Target | |
|---|---|---|---|---|
| | | | 2007 | 2011 |
| Procurement of Computer | Eye Care capacity assessment 2003 | Nil | 01 | 59 DH |
| Procurement of Photocopier | Eye Care capacity assessment 2003 | Nil | 00 | 01 |
| Tertiary level hospitals with Low vision equipment | Eye Care capacity assessment 2003 | 02 hospitals | Nil | 13 tertiary hospitals |
| Eye training institutes (Go/NGO) with standard eye equipment | Eye Care capacity assessment 2003 | 03 eye training institutes with standard equipment support | 03 eye training institutes with standard equipment support | 05 training institutes with training equipment support |
| District hospitals having computers for eye care units to keep records & generate reports | Eye Care capacity assessment 2003 | Nil | Nil | 59 DH with computers in eye units |
| Procurement of Vehicle for conducting mobile eye camps, School sight testing, supportive supervision & field training | Eye Care capacity assessment 2003 | Nil | Nil | 04 Vehicle procured |
| **Repair & maintenance of eye care equipment** | | | | |
| Repair & maintenance of the eye equipment of secondary eye care centers | Eye Care capacity assessment 2003 | Nil | 02 | 40 |
| **Human resource development** | | | | |
| 2-3 months local training for doctors on microsurgery | Eye Care capacity assessment 2003 | 50 | 65 | 150 |
| Mid level eye care personnel developed | Eye Care capacity assessment 2003 | 618 | 628 | 818 |
| Ophthalmologists trained on pediatric ophthalmology (Local training) | Eye Care capacity assessment 2003 | 05 | 15 | 15 |
| Conduction of training in posterior segment ophthalmic care for the ophthalmologists working at tertiary level (Foreign training with 6-12 weeks) | Eye Care capacity assessment 2003 | Nil | Nil | 03 |
| Nurses trained on OT & ward management (4-6 weeks Local training) | Eye Care capacity assessment 2003 | 20 Nos | Nil | 140 |
| District trainers trained in Primary eye Care TOT | Eye Care capacity assessment 2003 | Nil | Nil | 64 Districts |
| Primary Health Care Workers trained on primary eye care | Eye Care capacity assessment 2003 | 13000 PHC | 15000 PHC | 21600 PHC |
| **MSR support to eye care service centers** | | | | |
| District Hospital for MSR support for eye care | Eye Care capacity assessment 2003 | Nil | 10 | 58 |
| # of centers providing cataract (IOL) surgical services | Eye Care capacity assessment 2003 | 70 | 85 | 150 |
| Upazila Health Complex having MSR support | Eye Care capacity assessment 2003 | Nil | Nil | 292 UHC |

| Indicator(s) | Benchmark with reference | Status 2004 | Projected Target | |
|---|---|---|---|---|
| | | | 2007 | 2011 |
| Cataract with IOL Surgery in District Hospitals under special package | Eye Care capacity assessment 2003 | 4500 Nos | 5000 | 7000 nos in 59 DH |
| **Monitoring & supervision** | | | | |
| Annual performance review/evaluation meeting at division/national level (in house) | Eye Care capacity assessment 2003 | Nil | Nil | 16 meetings (1national/yr. & 01/div/year) |
| Incorporation of eye care data (GO & NGO's) in National MIS. | Eye Care capacity assessment 2003 | Nil | Nil | 01 no |
| Field visit of the National level supervisor for performance monitoring | Eye Care capacity assessment 2003 | Nil | Nil | 40 visits |
| Performance based reward for the health personnel and Institution. | Eye Care capacity assessment 2003 | Nil | Nil | 06 nos rewards |
| Program review (external) | Eye Care capacity assessment 2003 | Nil | Nil | 01 review report |

## Allocation, Expenditures and Progress of Operational Plans of HNPSP 2007-2008 under DGHS (in lakh taka)*

| Operational plans (Total 19) | Allocation | | | | | Expenditure | | | | | Progress against allocation (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | GOB & JDCF | RPA | | Other than RPA | Total | GOB & JDCF | RPA | Other | Other than RPA | Total | |
| | | GOB | Other | | | | GOB | | | | |
| Essential Service Delivery (ESD) | 7212.00 | 9015.00 | 22349.00 | 10749.00 | 49325.00 | 5812.00 | 8115.00 | 22349.00 | 8044.41 | 44320.41 | 89.85 |
| Communicable disease control (CDC) | 2600.00 | 8887.00 | 1113.00 | - | 12600.00 | 1262.47 | 4742.61 | 2588.58 | - | 8593.66 | 68.20 |
| TB and Leprosy Control (TLC) | 1006.00 | 450.00 | 8131.45 | 1420.55 | 11008.00 | 732.28 | 371.97 | 9262.86 | 243.97 | 10611.08 | 96.39 |
| Health Education and Promotion (HEP) | 992.00 | 1118.00 | - | 50.00 | 2160.00 | 986.88 | 713.19 | - | 50.00 | 1750.07 | 81.02 |
| Improved Hospital Service Management (IHSM) | 6150.00 | 13909.00 | - | 91.00 | 20150.00 | 4609.26 | 11856.18 | - | 38.44 | 16503.88 | 81.91 |
| Alternative Medical Care (AMC) | 920.00 | 46.00 | - | - | 966.00 | 741.28 | 41.85 | - | - | 783.13 | 81.07 |
| Non-Communicable Disease and Other Public Health Interventions (NCD) | 204.00 | 2500.00 | - | - | 2704.00 | 77.49 | 1783.18 | - | - | 1860.67 | 68.81 |
| National Aids Std Program (NASP) | 261.00 | 4618.00 | 2037.00 | 7800.00 | 14716.00 | 102.41 | 1671.76 | 2037.00 | 6800.00 | 10611.17 | 72.11 |
| In-service Training (IST) | 313.00 | 2200.00 | - | 559.00 | 3072.00 | 174.58 | 1579.54 | - | 1128.47 | 2882.59 | 93.83 |
| Pre-service Education (PSE) | 1775.00 | 335.00 | - | - | 2110.00 | 1700.99 | 283.01 | - | - | 1984.00 | 94.03 |
| Procurement Storage and Supplies (PSS) | 3017.00 | 40.00 | - | - | 3057.00 | 2980.69 | 30.17 | - | - | 3010.86 | 98.49 |
| Research and Development (Health) | 18.00 | 682.00 | - | - | 700.00 | 10.39 | 503.48 | - | - | 513.87 | 73.41 |
| MIS (Health) | 290.00 | 810.00 | - | - | 1100.00 | 226.12 | 476.54 | - | 29.77 | 732.43 | 66.58 |
| Quality Assurance (QA) | 16.00 | 100.00 | - | - | 116.00 | 14.12 | 100.00 | - | - | 114.12 | 98.38 |
| Sector-wide Program Management (SWPM) | 10.00 | 290.00 | - | - | 300.00 | 8.90 | 171.69 | - | - | 180.59 | 60.20 |
| Human Resource Management (HRM) | 25.00 | 70.00 | - | - | 95.00 | 24.95 | 51.44 | - | - | 76.39 | 80.41 |
| Improved Financial Management (IFM) | 22.00 | 28.00 | - | - | 50.00 | 11.00 | 28.00 | - | - | 39.00 | 78.00 |
| Micronutrient Supplementation (MS) | 318.00 | 1769.00 | - | - | 2087.00 | 282.61 | 887.94 | - | - | 1170.55 | 56.09 |
| National Eye Care (NEC) | 200.00 | 110.00 | - | - | 310.00 | 195.81 | 110.00 | - | - | 305.81 | 98.65 |
| Total (Lakh Taka) = | 25349.00 | 46977.00 | 33630.45 | 20669.55 | 126626.00 | 19277.32 | 30873.50 | 36237.44 | 16400.54 | 102788.80 | 81.18 |

PROJECT

# Expansion and Modernization of Dhaka Medical College Hospital

## Objectives of the project

- Ensuring qualitative treatment for the general people and expansion of physical facilities;
- Expansion of educational facilities in different branches of medical science for the post-graduate, under-graduate, internee doctors and nurses;
- Expansion of employment opportunity for both males and females.

## Implementation Period

i) Date of Commencement: July 2008

ii)Date of Completion : June 2011

## Location of the Project:

Dhaka Medical College and Hospital campus, Dhaka city area, Dhaka.

## Source of Funding (with amount):

GOB (F.E) in lakh Taka: 6000.00

## Allocation and expenditure: (FY 2007-2008)

On commencement of the project from July 2008, there was no allocation for fiscal year 2007-2008. For FY 2008-2009 allocation was Taka 1000.00 lakhs. As of November 2008, total amount released was Taka 500.00 lakhs.

## Statement of Physical Work

Progress as on November 2008 is given below:

## Project Director appointed

Prof. Qazi Zulfikar Mamun

Dept. of Microbiology

Dhaka Medical College, Dhaka

## Construction

(a) Design and Estimate completed.

(b) Tender floated and waiting for selection by the PWD.

PROJECT

# Establishment of National Institute of ENT (1st Phase) in Dhaka

## Objective of the project

- Ensuring Sound Hearing by the year 2030;
- Reducing burden of avoidable deafness and hearing impairment by 95% of the existing level by the year 2030;
- Strengthening of awareness for control and prevention of deafness and hearing impairment;
- Infrastructure development for control of deafness.

## Implementation Period

i) Date of Commencement July 2008

ii)Date of Completion : June 2011

## Location of the Project:

Tejgaon Health Complex Area, Dhaka

## Source of Funding (with amount):

1. GOB (F.E): Taka in lakh: 1621.39

2. P.A. (R.P.A.): Taka in lakh: 2505.57

## Allocation and expenditure: (FY 2007-2008)

Since commencement of the project from July 2008, there was no allocation for fiscal year 2007-2008. For FY 2008-2009 allocation was taka 300 lakhs. As of November 2008, total amount released was taka 150 lakhs.

**Statement of Physical Work:** Progress as on November 2008 is given below:

## Project Director appointed:

Prof. M. Abdullah (ENT)

Project Office: At DMCH (2nd Floor)

## Construction

a) Design and Estimate completed

b) Tender floated and waiting for selection by the PWD.

PROJECT

# Up Gradation of National Institute of Cancer Research and Hospital from 50 Bed to 300 Bed

## Objectives of the Project

- To establish modern detection and training facilities for cancer patients in both outdoor and indoor;
- To provide specialized training facilities for nurses and paramedics;
- To provide post-graduate courses and training facilities for the doctors;
- To introduce registration of cancer cases and tumor registry;
- To create awareness for prevention and control of cancer cases through IEC activity;
- Expansion of research activities on cancer and create awareness among general people;
- Rehabilitation of cancer patients after recovery.

## Project implementation period

### Original

Commencement - July 2008

Commencement - July 2008

### Revised

Completion - June 2010

Completion - June 2010

### No cost extension

Commencement- July 2008

Completion- June 2010 (Proposed)

## Location of the project

National Institute of Cancer research and Hospital, Mohakhali, Dhaka-1212.

## Source of funding (with amount)

Total Taka 295.5230 crore (GOB Tk. 190.6760 + RPA Tk. 104.8470) as approved RDPP (2nd revised)

## Physical work of Main Hospital Building:

1st Phase: 150 beds

Nine percent work has been completed from ground floor to 6th floor of the extension project of Cancer Research Institute & Hospital (50 beds to 300 beds). Outdoor services are being provided for the patients in 1st & 2nd floors and finishing work is going on in the remaining floors.

(Date of commencement 08.06.2004, date of completion 07.06.2006, total=24 months).

## Structure Based on 300 beds

60% work of 7th to 9th floor of the hospital building has been completed of the extended project (50 beds to 300 beds). Roof of the 7th to 9th floor completed & brick works & tiles works are going on.

(Date of commencement 20.11.2007, completion date 31.12.2008).

## Construction of Canteen, Kitchen & Seminar Hall

Nearly 85% of construction works of 1st to 5th floor is completed. Finishing work like renovation, beautification, etc. of canteen, kitchen blocks & seminar hall is going on.

(Date of work order 30.10.2005, completion date 30.06.2006 total=8 months).

## Saudi Development Fund (SFD)

Saudi Development Fund (SFD): Tender for physical Works of Tk.4100.00 lakhs is under process. Evaluation report of a tender document for the construction of 800 sq. feet quarter worth of Tk. 3765.00 lakhs has already been sent to Saudi Development Fund (SFD) authority on 31.08.2008 for approval. But any acceptance/approval letter not yet received from SDF authority.

PROJECT

# Establishment of National Institute of Neuroscience

## Introduction and Background

Health sector in the country has been developed and contributed remarkably since liberation. The infant and maternal mortality rates have declined to a satisfactory level and the average life expectancy has been increased. Bangladesh Health and Demography Survey 2007 (report published in June 2007) indicates that 7.02% of the total population of the country belongs to age group of above 60+ years. The statistics says that with the increase of life expectancy the population among age group of 60+ years is increasing; as a consequence, old age ailments are on increasing trend, which is alarming and needs to be addressed. Besides stroke and paralysis; senile dementia, parkinsonism, spinal cord injury, neuropathy, and brain tumor are on increasing trend. On the other hand, the death rate is increasing among the patients of acute head injury, acute stroke, GBS, respiratory insufficiency, meningitis and encephalitis, status epilepticus, brain SOL if the patients are not treated immediately. Treatments of these diseases were unknown previously; but with the advancement of medical science, the treatment of these diseases become possible. Though there is no survey and valid statistics on stroke and paralysis, it is presumed that there are about 30 lakhs of patients throughout the country leading unproductive life and becoming burden on the family and society as well. The main cause of these diseases are diabetes mellitus, hypertension, hyper cholesterolemia and the atherosclerosis of vessels. The death rate of paralysis patients is 19% if not appropriately treated within one month; 31% within one year; 35% of the patients who survive, 35% become permanently disabled and are to depend on others completely. The treatment of these diseases are long term and are highly expensive. Treatment of the poor people becomes uncertain because of financial insolvency.

The government is aware of the situation and is sincere to provide modern and specialized treatment for the people. In view of the situation, the government has established a Department of Neurology in Dhaka Medical College & Hospital in the year 1994. Subsequently, with a view to provide neurological treatment facilities to the people, the Department of Neurology has been established in 7 (seven) Medical College Hospitals with limited resources in respect of equipment, manpower and other ancillary facilities. In spite of these efforts, the facilities could not be expanded with the increase of population and demand for facilities. The service facilities are inadequate to meet the requirement of the common people. There are about 60 beds in different hospitals of capital city Dhaka. There are altogether 40 neurologists and 40 neuro-surgeons in the country to cater the need of 135 million populations, which is quite inadequate with respect to demand of service. At the present moment, approximately 100 doctors are undergoing post-graduation courses in different sub-specialties of neuro-sciences. After completion they will fulfill the immediate requirement of the neurologists.

Taking all these points into consideration, it was proposed to establish an "Institute of Neuro-sciences" with 300-bed facilities at the Sher-e-Bangla Nagar near

National Institute of Cardiovascular Diseases (NICVD), National Institute of Kidney Diseases and Urology (NIKDU) and Institute of Ophthalmology (NIO) with future provision of further expansion. After establishment of National Institute of Neuro-science (NINS), the neurological patients will be able to get the specialized treatment service in the country. Facilities will be expanded, life will be more comfortable, hard earned foreign currency will be saved and dependency will be reduced through treatment and rehabilitation. Beside service facilities, the institute will provide regular academic courses. Specialized manpower will be created through offering of Diploma, MD, MS, PhD courses from the institute.

There is a provision for teachers and specialists for the institute to ensure treatment and to run the post-graduation courses. Bio-statistics and Research Methodology are important subjects for higher education and for the researchers; but for these subjects part-time teachers will be more appropriate instead of full time manpower. Hence, no proposal has been made for the teachers of these two subjects; rather it is proposed to take the assistance of BMRC and NIPSOM for Bio-statistics and Research Methodology. The general people will be benefited if the project is implemented; at the same time the trained specialist manpower will be able to provide services to the people at the hospitals of district level and in different specialized hospitals. The neurological treatment facilities will be expanded; people will get the services at a very low cost at their doorsteps. The people will feel discouraged to get the services abroad and will save hard earned foreign currency, valuable time and energy.

**Table : Proposed number of annual intake in different academic courses**

| Name of the Course | Neuro-medicine | Neuro-surgery | Total |
|---|---|---|---|
| Diploma | 5 | 5 | 10 |
| | 10 | 10 | 20 |
| M.S | 10 | 10 | 20 |
| PhD | 1 | 1 | 2 |
| **Total** | **26** | **26** | **52** |

## Objectives of the Project

- To provide specialized treatment and expansion of the facilities to the district level and below for the neurological/neuro-surgical patients.
- To create specialist manpower through opening of post-graduation courses on different branches of neurology & neuro-surgery.
- To develop innovative and appropriate technology through research activities.
- To organize training for the graduate and post-graduate medical students on neurology / neuro-surgery.
- To develop research facilities.

PROJECT

# Establishment of 250 bedded National Institute of Ophthalmology & Hospital

## Introduction

A 100 bedded National Institute of Ophthalmology & Hospital was established in 1979 within the Shaheed Suhrawardy Hospital Complex Sher-E-Bangla Nagar, Dhaka. The Institute and the Hospital started functioning temporarily within the limited space, which is so small that the academic activities of the Institute & service delivery of the hospital become difficult. On the other hand the demand for higher education on ophthalmology and the service delivery is increasing day by day. Under these circumstances Government has realized the importance to establish the Institute & Hospital in a separate space. In view of this the Government has allocated 3 acres of land at Health Zone of Sher-E-Bangla Nagar, Dhaka for establishment of 250 bedded National Institute of Ophthalmology & Hospital.

## Background

With the increases of population, like other disease, the ophthalmic disease is also increasing. The technology of treatment has become advanced during the current years in the neighboring countries, where our technology needs to be at par in comparison with them. The patients cannot avail treatment facilities due to paucity of trained manpower, modern equipments at the district level hospitals. Finding no other alternatives the patients come to Dhaka with an intention to get the specialized treatment facilities from the National Institute of Ophthalmology & Hospital (NIO&H); but the Institute cannot provide the services up to satisfaction because of paucity of beds, infrastructure, modern equipment and the technology. Moreover the blinds are also a burden of the society. Timely intervention may reduce the number of patients and the blindness as well. To intervene for the modern treatment specialized doctors, trained nurses and paramedics play a vital role; to ensure specialized doctors the institutional capacity for postgraduation or diploma-training courses needs to be strengthened. The specialized doctors need periodical orientation on the latest advancement in ophthalmic treatment, especially on retina, Oculoplasty, Neuro-ophthalmology, Community ophthal-mology & Pediatric ophthalmology. The patients who were financially solvent and can afford goes abroad spend hard earned foreign currency, which is an irreparable economic loss to the country. If the facilities are made available within the country, a remarkable amount of foreign currency will be saved.

Taking all those points into consideration the Government of the People's Republic of Bangladesh, has felt the necessity and decided to establish National Institute of Ophthalmology and Hospital in the plot (F-7&8) at Sher-E-Bangla Nagar. After commissioning of the institute and the hospital the activities of the institute & hospital will be increased many folds. The number of eye specialists will be increased and as a result the treatment of eye diseases will be managed efficiently.

After launching of the institute approximately 15,000 Patients will get the service at the OPD, 25,000 in in-door and 6,000 in the emergency department. As part of establishment of 250 bedded National Institute of Ophthalmology & Hospital, the PWD prepared an architectural design, layout plan and an

estimate costing Tk. 5246.00 lakh for physical construction. Initially a six-storied building will be constructed. The layout plan of the building was drawn and submitted to the Ministry of Health & Family Welfare. The estimated project cost is Tk. 8775.63 Lakhs.

### Objectives of the Project

- To establish an institute in the country with all modern facilities and latest technology for the training of Doctors, Nurses, Paramedics and other ancillary personnel on Ophthalmology.
- To provide facilities for the treatment of all ophthalmologic patients and provide modern services to the complicated patients; consequently to discourage the tendency for treatment abroad and to save hard earned foreign currency of the country.
- The institute will be established as a center of excellence for research work on the subject.
- To combat blindness among the population of the country by increasing modern service facilities including increase of beds and modern equipment in the hospital.
- To modernize the academic climate for the students admitted in different courses like F.C.P.S., M.S., and Diploma in Ophthalmology; Diploma in Nursing and other short-term courses.

### Saudi Fund for Development (SFD) with 250 bedded National Institute of Ophthalmology & Hospital

On 29/01/2006 by 50% SFD loan assistance is approved to purchase the medical instrument, electrical & mechanical instruments and furniture as stated above by the Saudi Fund for Development (SFD) mission. On 22/02/06, Ministry of Health & Family Welfare has decided for taking consent of SFD for collecting machineries & instruments according to the work repots relating the Saudi finance. On 1st August 2006, the contract of Saudi loan assistance was executed. In addition to Saudi loan assistance, RDPP has been approved by ECNEC on 04/10/2006. According to the approved RDPP, Taka 8117.70 lack in GOB head and taka 5169.73 lack in favor of Saudi fund for development (SFD) has been approved (Total Taka- 13287.43).

### Period of current validity of the project

Originally Planned from July 2003 to June 2006, the period has been extended up to June 2007 for completion of the works. Later the project is also extended up to June 2008. Due to coordination weakness the project would further be extended.

### Transferring National Institute of Ophthalmology & Hospital

After receiving administrative approval of The Ministry of Health & Family Welfare's (Memo No. MHFW/admin-2/3A- 4/2007/ 395, dated: 02/12/2007) activities of transferring goods to the new building was completed on 18/12/2007.

PROJECT

# Establishment of 150 Bedded Sarkari Karmochari Modern Hospital

## Sponsoring Ministry/Division

Ministry of Health and Family Welfare

## Executing Agency

Directorate General of Health Services

## Estimated cost of the Project

TK.42,39,20,000.00

## Objectives of the Project

- To provide modern treatment facilities for Government employees & their dependants.
- To maintain quality of life through modern treatment facilities.
- To ensure cost effective health care by providing specialized services.
- To ensure reduction of morbidity of Government employees & dependents by regular health checkup and appropriate treatment.

## Project implementation period

Date of commencement- July 2008

Date of completion- June 2010

## Budget allocated

10,200,000/-; 1st Installment released in July 2008

## Progress of Work

Excavation of Earth/Soil for the Main Hospital building was started from June 2008.

## Contact Details of Line Directors of HNPSP under DGHS

| | Name of OP | Line Director | Phone | Mobile | Email |
|---|---|---|---|---|---|
| 1. | Alternative Medical Care | Dr. Md. Jalal Ahmed Director (In-charge) | 8812134 | 01819433112 | amc@ld.dghs.gov.bd |
| 2. | Communicable Disease Control | Dr. A.K.M. Moazzem Hossain (Disease Control) | 9880948 | 01716001654 | cdc@ld.dghs.gov.bd |
| 3. | Essential Service Delivery | Dr. ABM Jahangir Alam Director (PHC) | 8811741 | 01912201579 | esd@ld.dghs.gov.bd |
| 4. | Health Education & promotion | Md. Anwarul Islam Khan Chief, Bureau of Health Education | 989853 | 01715406808<br>01552396187 | hep@ld.dghs.gov.bd |
| 5. | Improved financial Management | Dr. Md. Nurul Islam (In-charge)<br>Deputy Director (Finance) | 9898780 | 01716226820 | ifm@ld.dghs.gov.bd |
| 6. | ImprovedHospital Services Management | Dr. Md. Akhter Hussain Bhuiyan Director (Hospital) | 8829493 | 01712904239 | ihsm@ld.dghs.gov.bd |
| 7. | In-Service Training | Prof. Dr. Hosne Ara Tahmin Additional Director General (Admin) | 8827899 | 01817561519 | ist@ld.dghs.gov.bd |
| 8. | Micronutrient Supplementation | Prof. Dr. Fatema Parvin Chowdhury Director (IPHN) | 8821361 | 01552202059 | ms@ld.dghs.gov.bd |
| 9. | MIS Health Services & Personnel | Prof. Dr. Abul Kalam Azad Director (MIS) | 8816412 | 01713018538 | mis@ld.dghs.gov.bd |
| 10. | National AIDS/STD program & Safe Blood Transfusion | Dr. Md. Abu Ishaque Khan<br>Line Dirrector | 8829720 | 01711205980 | nasp@ld.dghs.gov.bd |
| 11. | National Eye Care | Prof. Dr. Din Mohammad Nurul Huq Director (NIO) | 8114807 | 01711567852 | nec@ld.dghs.gov.bd |
| 12. | Pre–Service Education | Prof. Dr. Khandaker Md. Sifayet Ullah Director (MEH&MPD) | 8825400 | 01711591611 | pse@ld.dghs.gov.bd |
| 13. | Procurement of Logistics & Supplies Management | Brig. Gen. Abdus Shahid Mullick Director (CMSD) | 8115479 | 01923836822 | cmsd@ld.dghs.gov.bd |
| 14. | Public Health Intervention & Non-Communicable Disease Control | Dr. Masud Alam Line Director, DGHS | 9899207 | 01711316468 | phincd@ld.dghs.gov.bd |

| | | | | | |
|---|---|---|---|---|---|
| 15. | Human Resource Management | Dr. Kazi Shahadat Hossain<br>Director (Admin) | 8824116 | 01715007303 | hrm@ld.dghs.gov.bd |
| 16. | Quality Assurance | | | | qa@ld.dghs.gov.bd |
| 17. | Research & Development (Health) | Dr. Rokeya Sultana<br>Director (Planning & Research) | 8819958 | 01711302610 | rd@ld.dghs.gov.bd |
| 18. | Sector-Wide Program Management | | | | swpm@ld.dghs.gov.bd |
| 19. | TB & Leprosy Control | Prof. Dr. Provat Chandra Barua<br>Director (MBDC) | 9884657 | 01716469711 | tblc@ld.dghs.gov.bd |

## Contact Detail of Project Directors of HNPSP under DGHS

| | Name of Project | Project Director | Phone | Mobile | Email |
|---|---|---|---|---|---|
| 1. | National Institute of Ophthalmology and Hospital | Dr. Md Rezanur Rahman | 9119194 | 01711185430 | pdnioh@yahoo.com |
| 2. | Up-gradation of National Institute of Cancer Research and Hospital | Dr. Ahsan Shamim | 8826669 | 01712241991 | - |
| 3. | Establishment of National institute of Neuro-Science in Dhaka (Revised) | Professor Dr. Quazi Deen Mohammad | 9671032 | 01711565995 | nins_dmc@yahoo.com |
| 4. | Construction project of 150 bedded modern hospital for Government employees, Fulbaria, Dhaka | Dr. Md. Belayet Hossain | 9558017 | 01914789475 | - |
| 5. | Establishment of National Institute of ENT in Dhaka | Professor Dr. Md.Abdullah | 9670513 | 01819213359 | nentinstitute@yahoo.com |
| 6. | Expansion and Modernization of DMCH | Professor Dr. Kazi Zulfiquer Mamun | - | 01715094870 | kzmamun@yahoo.com |