

**Tracking Expenditure
of Bangladesh
Essential Health
Service Package
(ESP)**

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Acronyms

BNHA	Bangladesh National Health Accounts
CD	Communicable Disease
CHE	Current Health Expenditure
DI	Data International Ltd.
DSA	Disease Specific Account
ESP	Essential Service Package
FP	Family Planning
GBD	Global Burden of Diseases
HEU	Health Economics Unit
HNPSP	Health Nutrition and Population Sector Program
HSD	Health Services Division
ICD-10	International Classification of Disease and Related Health Problems 10 th revision
ICPC	International Classification of Primary Care
IMS	Intercontinental Marketing Survey
MOHFW	Ministry of Health and Family Welfare
MNCAH	Maternal, Neonatal, Child and Adolescent Health
MNH	Maternal and New-Born Health
NCD	Non-Communicable Disease
NGO	Non-Government Organization
NHA	National Health Accounts
OECD	Organization for Economic Co-operation and Development
OOP	Out of Pocket
PHC	Primary Health Care
SHA	Systems of Health Accounts
SHA 2011	System of Health Accounts 2011
THE	Total Health Expenditure
UHC	Universal Health Care
WHO	World Health Organization (WHO)

Glossary

Accounting Basis

Government accounts and the public budget in Bangladesh is based on fiscal or split year of July through June basis. Much of the public-sector data are compiled on fiscal year basis by the Controller General of Accounts (CGA). The CGA audited electronic data is also preserved on fiscal year basis. Hence, when public sector data is referred for a calendar year, say 2020, that would mean it is referring to fiscal year 2019-20. This deviation from the international practice needs to be kept in view particularly during inter-country comparisons. Rationale behind using the calendar year basis is that almost 70% of healthcare expenditure in Bangladesh are made by the private sector and most of the private sector healthcare providers prefer reporting annual expenditure on calendar year basis. It is also to be mentioned that the System of National Accounts 93 (SNA-93) recommends compilation of all accounts relating to national accounting to be on a calendar year basis to ensure proper international comparison.

Expenditures are calculated using an accrual definition, i.e., the year defined for the provision of health care goods and services is the year in which the health care goods and services are consumed. Annual government expenditures do not need to be adjusted using this definition, even though the accrual (obligation incurred) year may or may not exactly coincide with the fiscal year in which the cash transaction occurs. This definition also implies that the incurrence of liabilities by an entity is equivalent to an actual expenditure.

Government Expenditure

Since the third Bangladesh National Health Accounts (BNHA-3) 2007, using audited government expenditure data for reporting public expenditure has been adhered to. Recently the Ministry of Finance (MOF) upgraded its accounting system and introduced an Integrated Budget and Accounting System (iBAS++). Healthcare function coding of BNHA for the period of 2016-2020 has been completed using new iBAS++ coding. It is not uncommon to have miscoding when a new system is introduced. Hence, government expenditure reported under BNHA 6 may be subject to changes if such errors are detected in the future.

Development Partner Spending

Government borrowing or receipt of grants from development partners for healthcare services are treated as government's own funds. This type of funds is directly deposited at the treasury

and at the time of disbursement source of funds are not disclosed to the users. Foreign funds received directly by the NGOs are tracked and reported separately.

Purchasing Power Parity (PPP) Adjustment

Cost of living varies between economies, and the relative exchange rate does not necessarily account fully the differences. One popular macroeconomic analysis metric to compare economic productivity and standards of living between countries is purchasing power parity (PPP). The World Bank provided factors for adjustment of Purchasing Power Parity is used for PPP conversion of all healthcare expenditure for Bangladesh.

Child health expenditure

Expenditures during a specified period on goods, services and activities delivered to the child after birth or its caretaker whose primary purpose is to restore, improve and maintain the health of children in the nation between zero and less than five years of age.

Maternal health expenditure

For the purposes of routine monitoring expenditures towards MDG5a and MDG5b, a distinction is made here between maternal and new-born health (MNH), and sexual and reproductive health (SRH). Maternal health expenditure refers to expenditure incurred during antenatal care, birth, and postpartum care.

Sexual and reproductive health expenditure

For the purposes of routine monitoring expenditures towards MDG5a and MDG5b, a distinction is made here between maternal and new-born health (MNH), and sexual and reproductive health (SRH). SRH expenditure refers to four areas: (i) providing high-quality services for family planning, including infertility services. (ii) Eliminating unsafe abortion. (iii) Combating STIs including HIV, Reproductive Tract Infections, Reproductive health-related cancers, and other gynecological morbidities. (iv) Promoting sexual health.

ICD-10

ICD-10 is the 10th revision of the International Statistical Classification of Diseases and Related Health Problems (ICD), a medical classification list by the World Health Organization (WHO). It contains codes for diseases, signs and symptoms, abnormal findings, complaints, social circumstances, and external causes of injury or diseases.

Essential Service Package (ESP)

According to the WHO, an Essential Health Package consists of a limited list of public health and clinical services which will be provided at primary and/or secondary care level. are a powerful tool to define in practical terms access to Universal Health Coverage by selecting the services that should be made available to the whole population as a guaranteed minimum, thus enhancing equity. The ESP is the cornerstone of the Primary Health Care (PHC) strategy.

Bangladesh Essential Health Service Package (BESP)

In Bangladesh, the Health, Nutrition and Population (HNP) Strategic Investment Plan (SIP) 2016-2021 states that the Bangladesh Essential Health Service Package (BESP) should ensure equity and efficiency, guarantee universal access and improve quality of HNP services; services should be prioritized according to their impact on the burden of disease; ESP components should be provided by the available staff at each level. Links between levels providing ESP components should be established through a functioning referral system. ESP provision should prioritize hard-to-reach and vulnerable population and be sustainable in the long term.

Tracking Expenditure of Bangladesh Essential Service Package

I. Introduction

The International Conference on Primary Health Care, Alma-Ata, USSR 1978 emerged as a major milestone of the twentieth century in the field of public health. , It identified primary health care as the key to the attainment of the goal of Health for All. According to the Alma-Ata declaration, Primary Health Care (PHC) is defined as “*Essential healthcare based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in community through their full participation and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self-determination*”. (WHO/UNICEF, 1978).

However, no standard framework has been agreed globally for systematic data collection or tracking funds spent on Primary Health Care¹. The World Health Organization (WHO) has been supporting countries to track sources and uses of financial resources in the health sector using Health Accounts and other measurements for the last two decades.

In the absence of any standard framework, this study considered expenditures related to Bangladesh Essential Service Package (ESP) of the Ministry of Health and Family Welfare (MOHFW) as proxy for the Primary Health Care services in the country. ESP encompassed mostly primary health care interventions under five core services and management of few selected common conditions.

Table 1 below provides the number of component and interventions under each of the core ESP services. It is important to understand that this study only tracked and reported expenditures associated with ESP interventions and not for the entire core services. For example, “Family Planning” is one of the core ESP services but not everything under family planning is considered as part of the expenditure tracking; ESP is limited to 4 components and 19 types of interventions. Details of the components and interventions for all types of core ESP services are provided in the next section of this report.

¹ Vande Maele N, Xu K, Soucat A, *et al.* Measuring primary healthcare expenditure in low-income and lower middle-income countries. *BMJ Glob Health* 2019;4:e001497. doi:10.1136/bmjgh-2019-001497

Table 1: Core ESP services with number of components and interventions

Core Services	Components	Interventions
Maternal, Neonatal, Child and Adolescent Health	8	59
Family Planning	4	19
Nutrition	3	21
Communicable diseases	5	64
Non-communicable diseases	7	42
Management of other common conditions	6	29
Total	33	234

The overall goal and objectives of the ESP study is to track expenditure of Bangladesh Essential Health Service Package (ESP). Bangladesh is committed to achieve Universal Health Coverage (UHC) by 2030 as part of United Nation’s Sustainable Development Goal (SDG). UHC includes a full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation, and palliative care for all without suffering financial hardship. Essential Health Service Package (ESP) developed by the Ministry of Health and Family Welfare (MOHFW) are in congruence with UHC.

Since 1998, MOHFW is maintaining a list of essential health services and making periodic updates of the listing considering changes in trends of disease burden and population needs. MOHFW last updated its listing of ESP in 2016 for its fourth, five-year health sector strategy, HNPSP (2017-22). In broader term ESP for Bangladesh comprises of five core services: (i) Maternal, Neonatal, Child and Adolescent Health; (ii) Family Planning (FP); (iii) Nutrition; (iv) Communicable Diseases; (v) Non-Communicable Diseases; and complemented by services to treat and manage several common conditions. ESP services in Bangladesh are provided through different types of health care facilities starting from the Community Clinic to tertiary level hospitals like Medical College Hospital or Super Specialty Hospital.

The next section presents steps followed in estimating ESP expenditure for Bangladesh. The framework used in identifying financing source, providers of health service providers, and type of services. The data sources used in estimating ESP are also described.

II. Methodology and Approach

Bangladesh National Health Accounts (BNHA) is the most reliable document that gather health expenditures of the country in a systematic way following the System of Health Accounts 2011 (SHA 2011) guideline². **The task of tracking ESP expenditure from the BNHA involves extracting the expenditure share of ESP beneficiaries accounted under BNHA.** According to SHA 2011, health care beneficiary is defined as an individual to whom health expenditures can be assigned individually or collectively, on the basis that they are deemed to benefit from such expenditures.

The basis for assigning expenditures to an individual should be that the individual concerned is a direct recipient or beneficiary of a specific health care goods or services, either as an individual or as a member of a (small, selective) group of individuals. Under SHA guidelines, services are categorized into seven health care (HC) functions: (HC1) Services of curative care; (HC2) Rehabilitative care; (HC3) Long term care (health); (HC4) Ancillary services; (HC5) Medical goods; (HC6) Preventive care; and (HC7) Governance, health system and financing administration. Curative care is provided to individuals while preventive care in general to a group of individuals.

ESP is designed to serve the population of Bangladesh with special emphasis on mother and child. This exercise attempts to track and report health care expenditure of ESP beneficiaries that availed treatment from public and private health care service providers. In estimating ESP expenditure, entire BNHA expenditure for 2020 are analyzed covering all health care functions (HC1 to HC.6), gross capital formation and general administration.

Table 2 below represents BNHA healthcare expenditure in 2020 by public and private. To determine share of ESP at the public and private facilities, BNHA expenditure classified as HC1.1 to HC5.2 are distributed to a nationally representative sample of individual beneficiaries (inpatient and outpatient from public and private facilities).

Expenditure of ancillary service providers are distributed amongst all patients based on their use of lab and imaging services. Estimation of ESP expenditure for public health programs (HC.6.1 to HC.6.5) are based on information gathered from review of published and unpublished documents and in discussions with officials responsible in implementation of the ESP-related programs. As per recommendation of the Health Economics Unit's technical

² OECD, Eurostat, WHO (2011), A System of Health Accounts, OECD Publishing, doi: 10.1787/9789264116016-en

committee, expenditure on administration and capital formation are also distributed to ESP interventions proportionate to total health expenditure.

Table 2: Health Care Expenditure by Functions and Financing

HC Code	Health Care Classification	Public	Private	Total
		Creore Taka	Creore Taka	Creore Taka
HC.1.1	Inpatient curative care	3,704	5,273	8,977
HC.1.3	Outpatient curative care	4,745	7,880	12,624
HC.2.1	Inpatient rehabilitative care	21	-	21
HC.3.1	In-patient long-term care (health)	71	-	71
HC.4.1	Laboratory services	29	4,014	4,043
HC.4.2	Imaging services	-	2,432	2,432
HC.5.1	Pharmaceuticals and other medical non-durable goods	23	36,081	36,105
HC.5.2	Therapeutic appliances and other medical goods	-	65	65
HC.6.1	Information, education and counseling programmes	1,946	2,399	4,345
HC.6.2	Immunization programmes	235	98	333
HC.6.3	Early diseases detection programmes	49	-	49
HC.6.4	Healthy condition monitoring programmes	154	-	154
HC.6.5	Epidemiological surveillance and risk and disease control programmes	339	613	952
HC.7.1	Governance and health system administration	1,676	143	1,819
CHE	Current Health Expenditure	12,992	58,998	71,990
HCK.1.	Gross capital formation	1,861	762	2,624
HCKR.4	Research and development in health	560	-	560
HCKR.5	Education and training of health personnel	2,561	-	2,561
THE	Total Health Expenditure	17,974	59,760	77,735

A combination of different data sources and methods are used to analyze each component of spending in estimating ESP expenditure. Tracking of ESP services are inclusive of three independent but complementary analysis: (a) health care facility costing; (b) ICD10 coding of beneficiaries and ESP interventions; and (c) extracting ESP expenditure by merging the cost and patient data.

In step one, a costing exercise of all private health care facilities were conducted to avail unit cost/expenditure per bed day or outpatient visits for each of the sample hospital and outpatient centers. Methods used in calculating per unit cost is known as step-down cost accounting approach³ where cost information for each hospital is collected and distributed across departments and functions. Unit cost data generated under Public Facility Efficiency Survey (PFES) 2018 is used in estimating cost per patient which led to unit cost of a disease or conditions at the public facilities.

³ Barnum, H., and J. Kutzin. 1993. Public Hospitals in Developing Countries: Resource Use, Cost, Financing

Following the step-down cost accounting approach costs were first organized by cost centers according to three levels of costs: (i) final patient services—inpatient treatment, outpatient treatment, and preventive care; (ii) ancillary services—pharmacy, laboratory, and radiology; and (iii) overhead and administrative support. Allocation of staffing costs to cost centers especially for the public facility is challenging and assumption used in costing of staff time by inpatient and outpatient are provided in **Table 3**.

Table 3: Assumption used in costing of staff time by inpatient and outpatient

Staff Categories	Basis of Allocation
Consultants and specialists	Reported time allocations for consultants (inpatient or outpatient treatment)
Other medical officers and interns	Reported time allocations for medical officers (inpatient or outpatient treatment)
Resident medical officers	Reported time allocations for resident medical officers (inpatient or outpatient treatment)
Dental surgeons and medical technologists (dental)	Based on time allocations (inpatient or outpatient treatment) of dental surgeons at Dhaka Dental College Hospital
Pathologists and medical technologists (pathology)	100% to laboratory
Radiologists and medical technologists (radiology)	100% to radiology
Pharmacists and medical technologists (pharmacy)	100% to pharmacy
Family planning officers	100% to outpatient treatment (family planning)
Nurses, matrons, and nursing superintendents	Reported time allocations for nurses (inpatient or outpatient treatment)
Physiotherapists and occupational therapists	Distribution of physiotherapy services provided to inpatient and outpatients
Sanitary inspectors, health inspectors, assistant health inspectors, health assistants	100% to preventive
Thana health and family planning officer	100% to outpatient family planning
Directors and civil surgeons	100% to overhead and administrative support
Administrative officers, accounts officers, social welfare officers, other administrative staff	100% to overhead and administrative support
Storekeepers	10% to radiology, 10% to laboratory, and 80% to pharmacy, adjusted for whether services available at facility
Rent controller	100% to inpatient
Accountants, cashiers, typists, drivers, and other class III staff	100% to overhead and administrative support
Ward boys	100% to inpatient
Sweepers	80% to inpatient, 20% to outpatient
Laundry and tailor staff, cooks, and stretchers	100% to inpatient
Member of lower subordinate staff, security guards, gardeners, other class IV staff	100% to overhead and administrative support

A brief on the datasets used for hospital costing is provided below.

Public Facility Efficiency Survey 2018. The Public Facility Efficiency Survey (PFES) 2018 was a nationally representative survey of costs and expenditures at public facilities by the Health Economics Unit (HEU) of MOHFW. Using this survey, key cost components like per

unit cost of various inpatient and outpatient services (bed days, lab test, imaging services) are calculated for each type of public facility. Unit cost information generated from this survey is used in calculation cost of disease or conditions for inpatients and outpatients.

Private Clinic and Hospital Survey (PCHS) 2020. The PCHS 2019 was a nationally representative survey of expenditures and revenue at private facilities conducted for Bangladesh National Health Accounts 1997-2020. Using this survey, expenditure on per unit of various inpatient and outpatient services (bed days, lab test, imaging services) are calculated for each type of private health care facility. Unit cost information generated from this survey is used in calculation cost of disease or conditions for inpatients and outpatients at various types of health care facilities.

To calculate cost per disease or a condition, hospital inpatient treatment records and outpatient data on the characteristics and treatment of a nationally representative sample were collected. As step two of the ESP analysis, these patient data were reviewed by a panel of doctors, diagnosed, and classified using International Classification of Disease (ICD) version 10 (ICD-10, World Health Organization). ICD-10 coding for inpatient was relatively easy compared to outpatient as most of the inpatient records had diagnosis both for public and private hospitals. A description of inpatient and outpatient data used for this study is provided below:

Public Inpatient Admissions Records Survey 2017 (PIARS 2017): PIARS 2017 is a national level survey of inpatient. Under this survey, inpatient treatment records for a nationally representative sample of MOHFW facilities were collected. A total of 5,372 inpatient treatment records were combined with the cost data from the PFES 2018 to estimate the share of MOHFW spending by different types of inpatients stretching out disease or conditions. Using a mapping key patient that used ESP services.

Private Inpatient Admissions Records Survey 2020 (PIARS 2020): PIARS 2020 is a national level survey of inpatient. As part of this study this survey is funded by the World Health Organization (WHO). Under this survey, a nationally representative sample of inpatient treatment records from private facilities were collected. A total of 4,758 inpatient treatment records were combined with the cost data from the PCHS 2020 to estimate the distribution of out of pocket (OOP) expenditure by different types of inpatients that availed services related to ESP.

Two type of outpatient data was used in estimating ESP expenditure by the outpatient: (i) Public Hospital Outpatient; and (ii) Private Hospital Outpatient. Disease coding of the outpatient was done in multiple steps where all symptoms and reasons for encounter were coded using International Classification of Primary Care (ICPC) version 2. After completion of the ICPC-2 coding, the outpatient data were converted into ICD-10 coding which was challenging as a single ICPC-2 code is linked to multiple disease or condition. Significant level of effort was spent by the panel of doctors to ensure accuracy of the conversion process. A brief on the outpatient data collected and use is provided below.

Public Facility Outpatient Survey 2017 (PFOS 2017): PHOS 2017 is national level survey of outpatient seeking healthcare services from public facilities. Under this survey, outpatient data on the characteristics and treatment of a nationally representative sample of 2,117 outpatients from MOHFW facilities were collected. This outpatient data was combined with the cost data from the PFES 2018 to estimate the MOHFW spending by different types of ESP outpatients.

Private Outpatient Survey (POS) 2020: Under this survey, outpatient exit interviews were conducted. As part of this study this survey is funded by the World Health Organization (WHO). Under this survey, a nationally representative sample of 730 outpatient exit interviews from private facilities were conducted. Patient information obtained from this survey were combined with the cost data from the PCHS 2020 to estimate the distribution of out of pocket (OOP) spending by different types of outpatients that availed services related to ESP.

Medicine procured by households from pharmacies is the largest component of Out of Pocket (OOP) expenditure in Bangladesh. To measure the type of patients who uses pharmacy services, the Health Economics Unit (HEU), MOHFW undertook a Pharmacy Prescription Survey in 2018. The survey was conducted by IQIIVA/IMS Bangladesh. Patient data collected under this survey was disease coded (ICD-10) using the same methods used in coding of inpatient and outpatient. Coding of the pharmacy patients was challenging for those cases where a third person came to buy the medicine for a patient. Interviews of these type of patients in some cases were dropped from the study due to lack of information. A brief description on the outpatient data collected and use is provided below.

Pharmacy Prescription Survey 2018 (PPS 2018): PPS 2018 was a national survey of pharmacy customers and sales conducted using IQIIVA/IMS (Bangladesh) panel of pharmacies. A total of 11,245 pharmacy customers prescriptions were collected and all information were recorded electronically. The data were combined with aggregate estimates

of pharmaceutical market sales produced by IQUIVA/IMS Health to estimate the distribution of pharmacy expenditures by different types of patients.

In step three, ICD-10 coded inpatient and outpatient data were combined with the cost data generated from the public and private hospital surveys. Treatment cost for each patient is calculated using patient-level sample weight. Methodology developed by the Organisation for Economic Co-operation and Development (OECD) on voluntary reporting of disease specific expenditures⁴ is used for this analysis.

To redistribute the expenditure on laboratory and radiology services reported by the ancillary services providers, all ICD-10 coded patient data from public and private inpatient and outpatient centres were merged. And expenditures were distributed according to the number of laboratory or radiology investigations reported for each patient. At the final stage of the analysis, cost of disease for a patient with comorbidity was proportionately redistributed by the number of diseases diagnosed for that patient. For example, if a patient is diagnosed for asthma and hypertension and total cost of his treatment is Taka 100, then Taka 50 is allocated for each of the diseases.

Following completion of Step 3, expenditure associated with the ESP services was matched using a mapping key. The mapping key provides ICD-10 codes for all ESP interventions linked to age, sex, and disease. The mapping key was generated using the list of interventions for all key components of ESP. To match each ESP interventions with disease, experienced medical professional with practical knowledge of ICD-10 and ICPC-2 coding was used. Mapping key used for each of the five core ESP services are presented in **Table 4** to

⁴ <http://www.oecd.org/els/health-systems/Guidelines-Reporting-Disease-Age-Gender-Dec2013.pdf>

Table 12. In summary, a total of 24,071 patient records were used in tracking of ESP expenditures where length of stay as inpatient, number of visits by the outpatient, and use of laboratory and/or imaging services by each patient served as key factors in calculation of the expenditures.

Allocation of Preventive Care Expenditure to ESP

The ESP analysis of public health program were carried out in two steps. In first step ESP related expenditure made under various public health program carried out by the Government and Non-Government Organizations (NGOs) were identified and classified matching ESP components. For example, expenditure associated with HIV/AIDS reported under the BNHA as preventive care expenditure is also reported as HIV/AIDS related ESP preventive care expenditure. Electronic data of government expenditure on healthcare allowed identifying expenditure on procurement of vaccines by various providers which treated as expenditure for Child healthcare. Nonclinical (preventive care) services provided by the public hospitals and outpatient centers related to ESP are also estimated using results from the “Bangladesh Facility Efficiency Study 2018”.

The second step of the analysis addressed public health program expenditure that target the entire population for a wide range of diseases. For example, awareness creation program for TB, Malaria, HIV/AIDS, Dengue etc. When breakdown of expenditure by disease were available from the implementing agencies, such breakdown was used in allocating ESP expenditure; otherwise educated guess were made in discussion with sector or project experts.

Table 4: Mapping Key for Maternal, Neonatal, Child and Adolescent Health Care

INTERVENTION	ICD-10 CODES
Maternal Health	
Antenatal care (ANC)	
Daily iron and folic acid supplementation (pregnant women)	Z34 - Z36
Identify and manage hypertension in pregnancy	O10 - O11, O13, O16
Identify and manage pregnancy complications	O20 - O26, O28, O29, O98, O99
Calcium supplementation for prevention and treatment of pre-eclampsia and eclampsia	O14, O15
Tetanus toxoid (pregnant women)	Z23.5
Syphilis detection and treatment (pregnant women)	O98.1
Other Antenatal care (including screening, counselling & diagnostic tests)	O00 - O08, O12, O20 - O33, O34.0, O34.1, O34.3, O34.9, O35 - O36, O40 - O41, Z31, Z32, Z36
Micronutrient supplements (Vitamin B Complex)	Z34 - Z36
Postnatal Care (PNC)	
Maternal sepsis case management	O07.0, O07.5, O08.0, O85, O86

INTERVENTION	ICD-10 CODES
Other Postnatal Care (Counselling, Postnatal clinical history, Identification and management of postnatal complication)	O85 - O92, Z13.7, Z37 - Z39, F53.0
Normal delivery	
Identify and refer obstetric emergencies	
Management of Premature rupture of membranes (PROM)	O42
Normal labor and delivery (facility)	O80 - O84 (84.2), O75.7
Acute management of the 3rd stage of labor	O73
Antenatal corticosteroids for preterm labor	O60
Normal labor and delivery (home)	O80
Induction of labor (beyond 4 weeks)	O61 - O63
Management of eclampsia (Magnesium sulphate)	O14
Neonatal resuscitation (institutional)	P28 - P29
Obstetrical emergencies	
Management of pre-eclampsia (Magnesium sulphate)	O11, O15, O16
Management of obstructed labor	O64 - O66
Treatment of postpartum hemorrhage	O72
Other EmNOC (Management of Ante-partum Hemorrhage, prolapsed cord, shoulder dystocia, Removal of retained products, Repair vaginal and cervical tears, Assisted vaginal delivery, Blood transfusion)	O08.6, O43 - O48, O67 - O71, O73 - O75, O87 - O97
Caesarean section	O34.2, O60, O82, O84.2
Other obstetric emergencies (genital prolapse)	O34.4 - O34.8, N81

Table 5: Mapping Key for Maternal, Neonatal, Child and Adolescent Health Care

INTERVENTION	ICD-10 CODES
Neonatal Health	
Immediate newborn Care	
Chlorhexidine	
Immediate newborn Care (Cord cutting and tying, Prevention and management of hypothermia & newborn conjunctivitis, Promotion of essential newborn care & practice: Identification of danger sign, breathing problem & LBW babies, Special Care of pre-term)	P05 - P08, P21 - P29, P39.1, P50 - P51, P80 - P81, P92
Newborn Care after delivery	
Newborn Care after delivery (Birth registration, Weighing, temperature management, Screening for congenital problems, Identification of Sepsis, omphalitis, neonatal jaundice and identification and management of breast-feeding problems)	O92, P36, P38, P39, P55, P58, P59, P80, P81, P92, Z13.5, Z13.7, Z13.8, Z39 .1
Neonatal emergencies	
Newborn sepsis - Full supportive Care	P36
Newborn sepsis - Injectable antibiotics	
Neonatal emergencies (Management of breathing problems, omphalitis, LBW babies and neonatal jaundice)	A54.3, P24, P28, P36, P38, P39, P55, P58, P59

Table 6: Mapping Key for Family Planning

INTERVENTION	ICD-10 CODES
Family Planning /Reproductive Health (15-49 years)	
Pre-Conception Care	

INTERVENTION	ICD-10 CODES
Pre-conception care (Promote health, FP, nutrition, child survival and safe motherhood, Screening for malnutrition, Prevent/ID/HIV/AIDS, STI, congenital anomalies, Counselling on best practices during pregnancy)	Z11, Z13, Z31 - Z33, Z71,
Tetanus toxoid of women of reproductive age	Z23.5
Family Planning Counselling	
FP counselling	Z30.0
Family planning methods	
Pill - Standard daily regimen	Z30.0
Pill - post coital contraception	Z30.0
Condom – Male	
Injectable - 3 month (Depo Provera)	Z30.4
IUD - Copper - T 380 - A IUD (10 years)	Z30.1
Implant - Implanon (3 years)	Z30.4
Female sterilization	Z30.2
Male sterilization	Z30.2
Management of FP complications	
Management of FP complications	Z31
Menstrual regulation	
MR	Z30.3

Table 7: Mapping Key for Child Health and EPI

INTERVENTION	ICD-10 CODES
Child Health & EPI	
Child Health (Children 0-59 months)	
Integrated Management of Child Illness (IMCI)	
ORS	A00 - A05, A06.0 - A06.3, A07 - 09, A18.3, B37.8, B49, B76 - B82.0, K50 - K52, K90, P77, P78.3, Y10 - Y19
Zinc (diarrhoea treatment)	
Antibiotics for treatment of dysentery	
Treatment of severe diarrhoea	
Pneumonia treatment (children)	A48.1, A49.2, A70, B59, G00.0, P23.0, P23.6, P23.9, P24.9, P35.0, J09 -J17 - J18, J20 - J22, J67 - J70, J84, J85.1 , U04.9
Treatment of severe pneumonia	
Other IMCI activities (Treatment of simple fever, severe febrile disease, Lab diagnosis for fever, acute ear infection, identification of danger signs & referral, Counselling to parents of danger signs & nutrition)	P35 - P39, R50, R56.0, J00 - J06, H60 (H60.2) - H62, H65 - H67, Z70, Z71
ARI (Cough/cold, wheeze)	J00 - J06, J20 - J22, J45, J46
Expanded Programme of immunization (EPI) (Children 0-23 months)	
Measles vaccine	Z24.4
Polio vaccine	Z24.0
BCG vaccine	Z23.2
Pneumococcal vaccine	Z25.1
Other EPI activities (Counselling patients on immunization and adverse effects, Registering eligible children, Follow-up of defaulters & to identify adverse effects)	T80.5, T80.6, T88.0, T88.1
Inactivated polio vaccine (IPV)	Z24.0
Vaccine, Pentavalent	Z27.3

Table 8: Mapping Key for Nutrition

INTERVENTION	ICD-10 CODES
Nutrition (Women of reproductive age (15- 49 years) and Both sex 10-19 years)	
Adolescent nutrition	
Assessment of nutritional status	Z13.2
Maternal nutrition	
Vitamin A post-partum	Z39.2
Assessment & counselling during ANC	Z34 - Z36
Deworming	B68 - B89 , Z11.6
Management of anemia	D50 - D64, Z13.0
Child nutrition	
Deworming (children)	B68 - B89 , Z11.6
Breast feeding counselling & support	Z71.9
Complementary feeding counselling and support	Z71.3
Vitamin A supplementation in infants and children 6 -23 months	E50, E64.1, H53.6
Daily iron supplementation for children 6 - 23 months	E61.1
Management of severe acute malnutrition (children)	E40 - E46, E50 - E64, T73 - T74
Management of moderate acute malnutrition (children)	
Assessment nutrition status child	
Other IYCF (infant and young children feeding) (Breast feeding within an hour of birth, Exclusive breast feeding for 6 months, Breast feeding until 23 months of age)	O92, Z39.1
Management of SAM (severe acute malnutrition) with associated complications (Vitamin A deficiency, Corneal clouding/ulceration, Dermatitis, Helminthiasis, Continuing diarrhoea/ dysentery)	E40 - E46, E50 - E64, T73 - T74, B68 - B89, Z11.6, A00 - A05, A06.0 - A06.3, A07 - 09, A18.3, B37.8, B49, B76 - B82.0, K50 - K52, K90, P77, P78.3, Y10 - Y19
Other	
Intermittent iron-folic acid supplementation (menstruating women where anemia is public health problem)	D50, O99.0

Table 9: Mapping Key for Communicable Diseases

INTERVENTION	ICD-10 CODES
Malaria	
Prevention	
Vector control (other)	
BCC	
Case management	
Malaria diagnosis (malarial fevers)	B50 - 54, P37.3, P37.4
Malaria treatment (children 5 - 14)	
Malaria treatment (adults, excluding pregnant women)	
Treatment of malaria (pregnant women)	O98.6
Treatment of severe malaria (5+)	B50 - 54, P37.3, P37.4
Malaria treatment for children 0 - 5 years (IMCI)	
TB	
Tuberculosis	
Diagnosis microscopy: Passive TB case finding	A15.0
Diagnosis microscopy: Active TB case finding	A15.0
Diagnosis microscopy: Household contact tracing	A15.0
Diagnosis microscopy: Child cases	A15.0
Monitoring microscopy: Test to monitor first-line drug treatment, new bacteriologically confirmed cases	A15.0, A15.1
Monitoring microscopy: Test to monitor first-line drug treatment, previously treated cases	A15.0

INTERVENTION	ICD-10 CODES
Monitoring microscopy: Test to monitor second-line treatment for RR-/MDR TB	U83.7, U84.3,
RR-Diagnosis Expert: Resistance testing for new smear positive cases	U84.3
RR-Diagnosis Expert: Resistance testing for previously treated positive cases	U84.3
Screening X-rays: Passive TB case finding	Z11.1
Screening X-rays: Active TB case finding	Z11.1
Screening X-rays: Household contact tracing	Z03.0
Screening X-rays: Smear negative	Z11.1
Diagnosis X-rays: HIV+	R91, B20.0
Diagnosis X-rays: Children	R91
Monitoring X-rays: Test to monitor treatment for new pulmonary cases	Z51.2
Monitoring X-rays: Test to monitor treatment for previously treated cases	Z51.2
Monitoring X-rays: Test to monitor treatment for MDR or RR-TB	U84.3, U83.7
First-line TB treatment: Initial treatment	A15 - A19
First-line TB treatment: Initial treatment for children	A15 - A19
First-line TB treatment: Previously treated	B90
First-line TB treatment: Previously treated for children	B90
Second-line treatment	
XDR treatment	U83.7
Education on causes, prevention and control of TB and other communicable diseases	
Preventive therapy of contacts	Z20.1
Leprosy	
Leprosy	A30, B92, Z11.2
HIV/AIDS	
Prevention – Other	
Voluntary counselling and testing	Z71.7
PMTCT (prevention of mother to child transmission)	O98.7
BCC (behavior change communication)	Z71.7
Prevention of HIV infection at health facilities	Z11.4
Care and treatment	
Diagnostic/lab costs for HIV+ in Care	B20 - 24, R75, O98.7, Z11.4, Z20.6, Z21, Z83.0
ART (Second-line Treatment) for adults	B20 - 24, R75, O98.7, Z11.4, Z20.6, Z21, Z83.0
Management of opportunistic infections associated with HIV/AIDS	B20 - 24, R75, O98.7, Z11.4, Z20.6, Z21, Z83.0
Etiologic management of STI	A50 - A64, Z11.3, Z20.2, Z22.4
Syndromic management of STI	

Table 10: Mapping Key for Non-Communicable Diseases

INTERVENTION	ICD-10 CODES
Non-communicable diseases	
Diabetes mellites (DM)	
Diagnosis of DM	E10 - E14, P70
Management of type II DM	E11
Management of type I DM	E10
Identification of long-term complications	Z13.1, Z71.3
Breast cancer	
Basic breast cancer awareness	
Screening: Clinical breast exam.	Z12.3
Cervical cancer	
Visual inspection with acetic acid (VIA)	Z12.4

INTERVENTION	ICD-10 CODES
Chronic Obstructive Pulmonary Disease (COPD)	
Counselling on smoking cessation	Z71.6
Diagnosis and management of ambulatory cases	J44
Diagnosis and management of inpatient cases	
Sexual and Gender-Based Violence	
Case identification & recognition	Z04.4
First-point Counselling	Z91.8
Prevention of pregnancy: emergency contraception	Z30.0
Treatment of minor injuries	T11.9, T13.9, T14.0, T14.1, T14.7, T14.8, T14.9, S59
Prophylaxis for STI	Z11.3
Psychological support	Z70, Z71.8
Medicolegal examinations	Z04.4, Z04.8
NCD screening and management based on total risk assessment	
Screening for risk of CVD/diabetes	Z13.1, Z13.6
Determination risk of CVD in next 10 years	
Manage conditions and I & R complications	E10 - E14, Z72, I10 - I25, I60 - I69
Arsenocosis	
Counselling on the consumption of safe water	Z71.3
Identify, treat skin conditions and refer	L81.8, T57.0
Hypertension	
Promote healthy lifestyle for HTN and other NCD control	Z71, Z72 (exc. Z71.7, Z71.8)
Diagnosis of HTN	I10, Z13.6
Management of HTN	
Lab follow-up of HTN cases	
Identify and refer CVD	I11 - I25, I60 - I69, Z13.6
Adolescent Health	
Counselling on puberty, safe sexual behavior, prevention of early marriage, mental health, HIV/AIDS, substance abuse, etc.	Z70, Z71.4 - Z71.9, Z72, F70 -F79 Exc. (Z70.2, Z72.3 - Z.72.4),
Screening for STI	Z11.3
Syndromic management of STI	A50 - A64
Etiologic management of STI	
FP information and provision	Z30 - Z33

Table 11: Mapping Key for Non-Communicable Diseases (Contd.)

INTERVENTION	ICD-10 CODES
Neglected Tropical Disease	
Kala-azar	
Cutaneous leishmaniasis	B55.1, B55.2
Visceral leishmaniasis	B55.0, B55.9
Lymphatic filariasis	
Mass Drug Administration of population at risk	Z29.2, Z29.8
Surgical treatment of hydrocele	B74.0
Medical management of lymphedema	
Clinical diagnosis	
Lab diagnosis	
Management of acute attacks	

Table 12: Mapping Key for Management of Other Common Conditions

INTERVENTION	ICD-10 CODES
Management of other common conditions	
Eye Care	
Treatment of acute conjunctivitis	H10 - H13
Treatment of corneal ulcer	H16.0
Detection of cataract and visual impairment	H25 - H28, H53 - H54, Z13.5
Ear Care	
Identification and referral of hearing impairment	H90 - H95, Z13.5
Management of otitis media	H65 -H67
Dental Care	
Promotion of oral hygiene	Z91.2, Z91.8
Treatment of common dental diseases	K02, K05, K08.8
Tooth extraction (mobile teeth)	K08.8
Treatment of common skin diseases	
Treatment of common skin diseases	L00 - L03, L08, L20 - L23, L50,
Emergency Care	
RTA_stabilization and referral	V80 - V99
Drowning	T75.1, W65 - W74, X92
First aid in minor injuries	T09.0, T11.0, T13.0, T14.0
Poisoning and snake bite	T52, T60, T63, X66, X68, X69, Y16, Y18, Y19
Other communicable diseases	
Hepatitis diagnosis and management	B15 - B19, K70.1, K71.2 - K771.5, K73, K75.8 - K75.9
Typhoid diagnosis and management	A01
Diarrhoea and dysentery	A00 - A09 excl. (A01, A06.4 - A06.8)
Dengue	
Lab monitoring of suspected case	Z03.8, Z11.5
OPD management	A97
Inpatient management	
Rabies	
Rabies post exposure prophylaxis	Z20.3, Z24.2

III. Findings

Type of disease and conditions covered under the Essential Service Package (ESP) is discussed in detailed in the previous section along with the mapping key for each of the core component. For tracking of ESP expenditure, the mapping keys were used and only expenditure related to the target population is reported as findings of this study. **Table 13** below provides the ESP core services and components along with the criteria used in isolating the targeted population.

Table 13: Core ESP Expenditure by Component and Target Group, 2020

Core Services	Component	Target Group
Maternal, Neonatal, Child and Adolescent Health (MNCAH)	Child Health	Children 0-14 years
	Adolescent Health	Adolescents 10-19 years
	Normal delivery	Pregnant women
	Antenatal care (ANC)	Pregnant women
	Obstetrical emergencies	Pregnant women
	Postnatal Care (PNC)	Pregnant women
	Immediate newborn Care	Live births
	Neonatal emergencies	Live births
Family Planning	Pre-Conception Care	Women of age 15- 49 years
	Post-partum	Women of age 15- 49 years
	Post-abortion	Women of age 15- 49 years
	Post-menstrual regulation	Women of age 15- 49 years
Nutrition	Maternal nutrition	Pregnant women
	Child nutrition	Children 0-23 months
	Adolescent nutrition	Adolescents 10-19 years
Communicable diseases	Tuberculosis	Total incidence/year
	Malaria	Population at risk
	HIV/AIDS	People living with HIV/AIDS
	Neglected tropical diseases	Population at risk
	Other communicable diseases	Total population
Non-communicable diseases	Hypertension (HTN)	Total population
	Diabetes mellites (DM)	Total population
	NCD screening and management	Total population
	Breast and cervical cancer	Women 30-49 years
	Other NCDs	Total population
	Mental Health	Total population
	Sexual and Gender-Based Violence	Total population
Management of other common conditions	Ear Care	Total population
	Emergency Care	Total population
	Eye Care	Total population
	Geriatric	Age 65 and above
	Treatments of common skin diseases	Total population
	Dental Care	Total population

In 2020, Bangladesh spent a total of Taka 380 billion on ESP services. It amounts to almost of half of Total Health Expenditure (THE) (48.8%). THE includes all healthcare goods and services including gross capital formation for a year. A breakdown of ESP expenditure by public and private shows that 27% of ESP expenditure is paid by the government while remaining 73% is from the private sector including NGOs (**Table 14**).

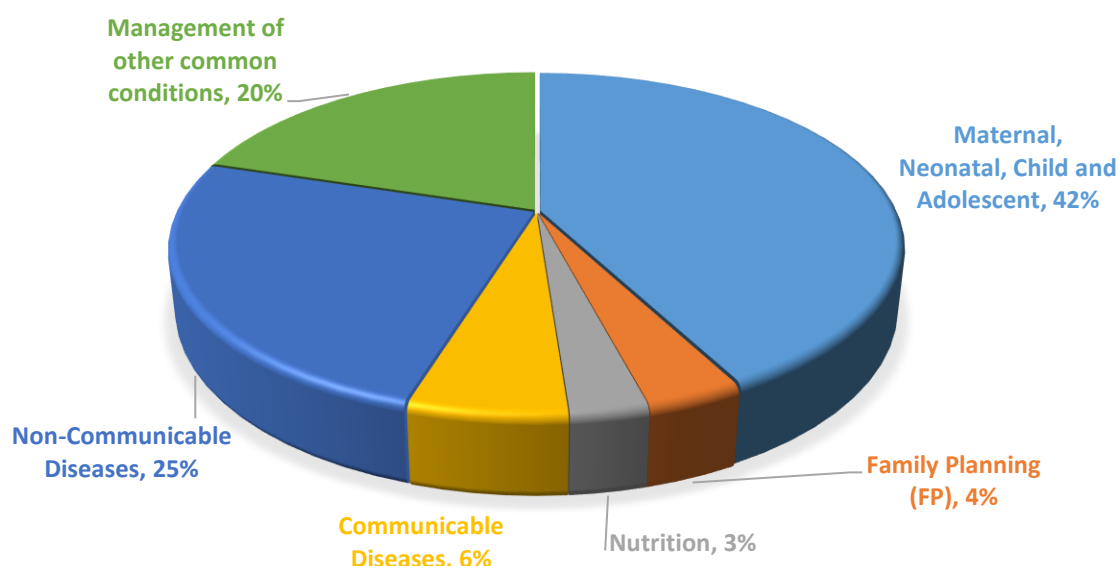
In 2020, per person ESP expenditure was Taka 2,235. Per-capita ESP spending by public and private for the year were Taka 593 and Taka 1,642 respectively. Analysis of the per-capita spending by core ESP services shows that the highest per-capita spending is made on Maternal, Neonatal, Child and Adolescent interventions, where government spent Taka 294, and Taka 649 was by the private sector.

Table 14: Core ESP Expenditure and Per-Capita spending by Public and Private, 2020

Core ESP Classification	Public		Private		Total	
	Million Taka	Per-Capita	Million Taka	Per-Capita	Million Taka	Per-Capita
Maternal, Neonatal, Child and Adolescent	49,905	294	110,274	649	160,179	943
Family Planning (FP)	12,347	73	1,508	9	13,855	82
Nutrition	1,525	9	9,721	57	11,247	66
Communicable Diseases	9,786	58	12,974	76	22,761	134
Non-Communicable Diseases	4,438	26	90,368	532	94,806	558
Management of other common conditions	22,756	134	53,934	318	76,691	452
			-		-	
Total ESP	100,757	593	278,780	1,642	379,537	2,235
Total THE	179,742	1,058	597,605	3,519	777,347	4,578
ESP as % of THE	56.1%		46.6%		48.8%	

A breakdown of ESP expenditures by core services and management of other common conditions reveals that expenditure on Maternal, Neonatal, Child and Adolescent Health (MNCAH) accounts for the largest share of ESP (42%) followed by Non-communicable disease (31%) -- **Figure 1**. A key component of the Non-communicable disease (NCD) is Sexual and Gender-Based Violence, which includes treatment of minor injuries, making it the largest component of NCD related ESP expenditure.

Figure 1: Percentage Share of Core ESP Services, 2020



A breakdown of ESP expenditure on curative and preventive care indicates that 75% is spent on curative care and 25% on preventive care (**Table 15**). The largest ESP expenditure component is on Maternal, Neonatal, Child and Adolescent (Taka 160.1 billion) which translates to 42% of total spending, followed by non-communicable diseases (Taka 94.8 billion). A total of Taka 58.3 billion was spent on preventive care for core ESP services.

Preventive care is health care that helps people stay healthy by sharing information, providing education and counseling to prevent disease, injury, or illness. Curative care expenditure is higher for female for all core ESP categories compared to male, except for management of other common conditions. Around 2.3% of the ESP service expenditure in 2020 was on administration. Formation of capital and expenditure on education and research related to ESP in 2020 was Taka 27.3 billion.

Table 15: ESP Expenditure on Curative and Preventive Care by Gender, 2020

Core ESP Classification	Curative Care (Million Taka)			Preventive	Admin.	Capital	Total
	Male	Female	Total	Million	Million	Million	Million
				Taka	Taka	Taka	Taka
Maternal, Neonatal, Child and Adolescent	35,450	83,795	119,245	21,280	4,801	14,853	160,179
Family Planning (FP)		240.73	240.73	13522.57	22.89	68.81	13855
Nutrition	3,175	7,242	10,417	13	191	626	11,247
Communicable Diseases	2,554	4,017	6,571	13,531	664	1,995	22,761
Non-Communicable Diseases	31,184	60,219	91,404	33	712	2,657	94,806
Management of other common conditions	32,902	24,306	57,208	9,957	2,328	7,198	76,691
Total ESP	105,265	179,821	285,085	58,336	8,719	27,397	379,537
Male Female share of curative care	36%	64%	100%				
Percentage of Curative and Preventive			75.1%	15.4%	2.3%	7.2%	100%

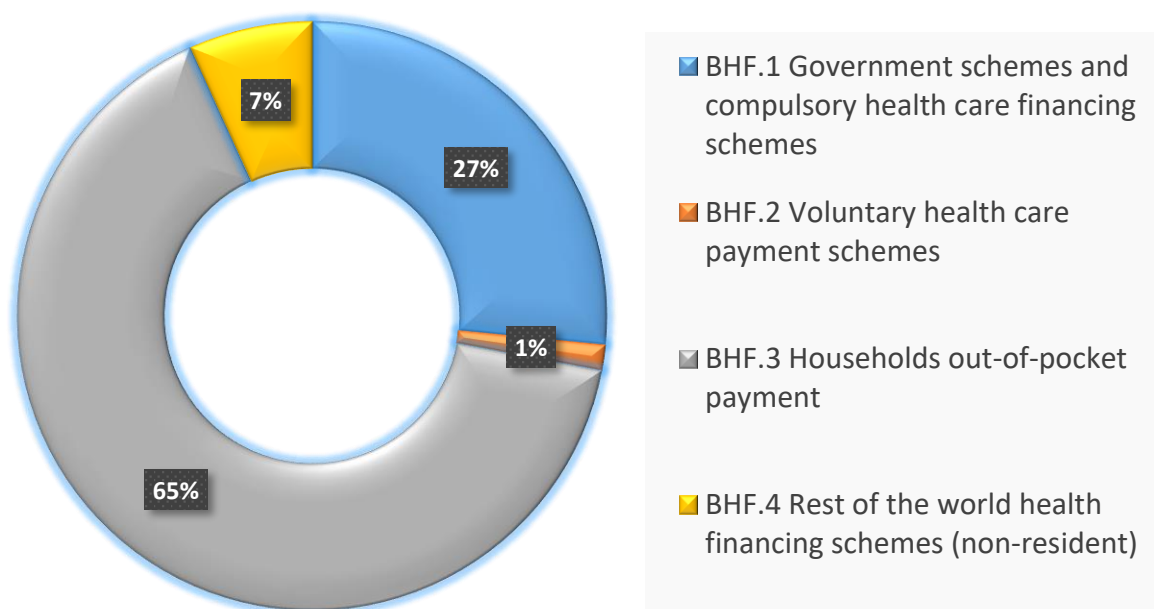
ESP Expenditure by Financing Schemes

In 2020, government financed around 27% of total expenditure of ESP services – around Taka 101 billion – **Table 16** and **Figure 2**. According to Bangladesh National Health Accounts (BNHA), government financing for the same year on Current Health Expenditure (THE) was around 23%. It is unsurprising that household out of pocket (OOP) payment accounts for the largest share of ESP expenditure. In 2020, household spent around Taka 248 billion on OOP payment (**Table 16**).

Table 16: Core ESP Expenditure by Financing Schemes, 2020

Core ESP Classification	Government schemes and compulsory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world health financing schemes	Total
Values are in Taka Million					
Maternal, Neonatal, Child and Adolescent	49,904.8	2,152.9	97,526.4	10,594.7	160,178.7
Family Planning (FP)	12,347.3	489.0	127.4	891.2	13,855.0
Nutrition	1,525.3	-	9,721.3	-	11,246.6
Communicable Diseases	9,786.2	927.9	3,269.8	8,776.6	22,760.6
Non-Communicable Diseases	4,437.6	-	90,368.2	-	94,805.7
Management of other common conditions	22,756.3	1,809.5	46,659.9	5,465.0	76,690.6
Total	100,757.4	5,379.3	247,672.9	25,727.5	379,537.2

Figure 2: Share of Core ESP Services by Financing Schemes, 2020



In 2020, total expenditure ESP on Maternal, Neonatal, Child and Adolescent Health (MNCAH) was approximately Taka 160.2 billion (**Table 17**). Household is the largest finance scheme participant (Taka 97.6 billion) followed by the Government (Taka 49.9 billion), and rest of the world/donors (Taka 10.6 billion). Households spend primarily on child health (Taka 52.8 billion), normal delivery (Taka 28.6 billion) and on antenatal care (ANC) (Taka 13.1 billion). Major portion of the government spending on MNCAH services are spend on Child Health (Taka 32.8 billion) followed by preventive care (Taka 8.5 billion). Of the MNCAH services, the donors finance only in the area of preventive care (Taka 10.6 billion).

Table 17: ESP Expenditure on Maternal, Neonatal, Child and Adolescent Health (MNCAH) by Financing Schemes, 2020

MNCAH Components	Government schemes and compulsory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world health financing schemes (non-resident)	Total
	Values are in Taka Million				
Adolescent Health	13.0	-	93.8	-	106.8
Antenatal care (ANC)	4,418.9	-	13,140.2	-	17,559.1
Child Health	32,763.9	-	52,787.7	-	85,551.6
Immediate newborn Care	89.9	-	361.2	-	451.1
Neonatal emergencies	-	-	0.6	-	0.6
Normal delivery	3,655.4	-	28,554.8	-	32,210.2
Obstetrical emergencies	370.9	-	1,161.2	-	1,532.0
Postnatal Care (PNC)	60.3	-	1,426.9	-	1,487.2
Preventive care	8,532.6	2,152.9	-	10,594.7	21,280.1
	-	-	-	-	-
Total MNCAH	49,904.8	2,152.9	97,526.4	10,594.7	160,178.7

In 2020, total expenditure ESP on Family Planning was approximately Taka 13.9 billion (**Table 18**). The government's financing schemes including compulsory health care financing schemes outlay was Taka 12.3 billion, much of which was spent on preventive care (Taka 12.1 billion). Households Out-of-Pocket (OOP) expenditure on Family Planning (FP) is relatively low (Taka 127 million), while that of development partners is Taka 891 million. In 2020, total ESP expenditure on nutrition was approximately Taka 11.2 billion (**Table 19**). Households OOP on nutrition was Taka 9.7 billion and Taka 1.5 billion was spent by the government.

Table 18: ESP Expenditure on Family Planning (FP) by Financing Schemes, 2020

ESP FP Services	Government schemes and compulsory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world health financing schemes (non-resident)	Total
	Values are in Taka Million				
Post-partum	44.2	-	9.2	-	53.4
Pre-Conception Care	160.8	-	118.2	-	279.0
Preventive care	12,142.3	489.0	-	891.2	13,522.6
	-	-	-	-	-
Total	12,347.3	489.0	127.4	891.2	13,855.0

Table 19: ESP Expenditure on Nutrition by Financing Schemes, 2020

ESP Nutrition Services	Government schemes and compulsory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world health financing schemes (non-resident)	Total
Values are in Taka Million					
Child nutrition	329.2	-	5,435.2	-	5,764.4
Maternal nutrition	1,183.5	-	4,286.2	-	5,469.7
Preventive care	12.6	-	-	-	12.6
	-	-	-	-	-
Total	1,525.3	-	9,721.3	-	11,246.6

In 2020, total ESP expenditure on Communicable Disease was approximately Taka 22.8 billion (**Table 19**). The government's schemes and compulsory health care financing schemes was Taka 9.8 billion. Donor contributions are larger than that of households – Taka 8.8 billion and Taka 3.3 billion respectively. Voluntary health care payment schemes accounted for Taka 928 million on preventive and curative interventions relating to communicable diseases.

Table 20: ESP Expenditure on Communicable Disease by Financing Schemes, 2020

Communicable Disease ESP Services	Government schemes and compulsory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world health financing schemes (non-resident)	Total
Values are in Taka Million					
Care and treatment	74.4	-	246.6	-	321.0
Case management	3,870.1	-	662.8	-	4,532.9
Leprosy	442.3	-	788.9	-	1,231.2
Preventive care	3,826.5	927.9	-	8,776.6	13,531.0
Tuberculosis	1,572.9	-	1,571.5	-	3,144.4
	-	-	-	-	-
Total	9,786.2	927.9	3,269.8	8,776.6	22,760.6

In 2020, total expenditure ESP on non-Communicable Disease (NCD) was approximately Taka 94.8 billion (**Table 21**). Households' OOP on NCD is significantly higher (Taka 78.5 billion) than that of government's schemes (Taka 2 billion).

Table 21: ESP Expenditure on Non-Communicable Disease (NCD) by Financing Schemes, 2020

Non-Communicable Disease ESP Services	Government schemes and compulsory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world health financing schemes (non-resident)	Total
Values are in Taka Million					
Arsenocosis	-	-	10.0	-	10.0
Cervical cancer	175.0	-	11.2	-	186.2
Diabetes mellitus (DM)	849.9	-	7,459.5	-	8,309.4

Non-Communicable Disease ESP Services	Government schemes and compulsory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world health financing schemes (non-resident)	Total
NCD screening and management	1,983.5	-	78,527.1	-	80,510.7
Preventive care	32.7	-	-	-	32.7
Sexual and Gender-Based Violence	1,396.4	-	4,360.3	-	5,756.8
	-	-	-	-	-
Total	4,437.6		90,368.2		94,805.7

In 2020, total ESP expenditure on Management of Common Conditions was approximately Taka 76.7 billion (**Table 22**). Households' OOP under this category is higher (Taka 46.7 billion) than that of government's schemes (Taka 22.8 billion), donors (Taka 5.4 billion) and voluntary health care payment schemes (Taka 1.8 billion).

Table 22: ESP Expenditure on Management of Common Conditions by Financing Schemes, 2020

Common Conditions	Government schemes and compulsory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world health financing schemes (non-resident)	Total
	Values are in Taka Million				
Dental Care	4,344.0	-	3,863.6	-	8,207.5
Ear Care	2,586.9	-	3,777.1	-	6,364.0
Emergency Care	3,454.4	-	1,896.9	-	5,351.3
Eye Care	491.6	-	1,861.4	-	2,353.0
Geriatric care	5,939.8	-	29,839.2	-	35,778.9
Other communicable diseases	232.7	-	544.2	-	776.8
Preventive care	2,682.3	1,809.5	-	5,465.0	9,956.7
Rabies	-	-	0.4	-	0.4
Treatment of common skin diseases	3,024.8	-	4,877.1	-	7,901.9
	-	-	-	-	-
Total	22,756.3	1,809.5	46,659.9	5,465.0	76,690.6

ESP Expenditure by Functions

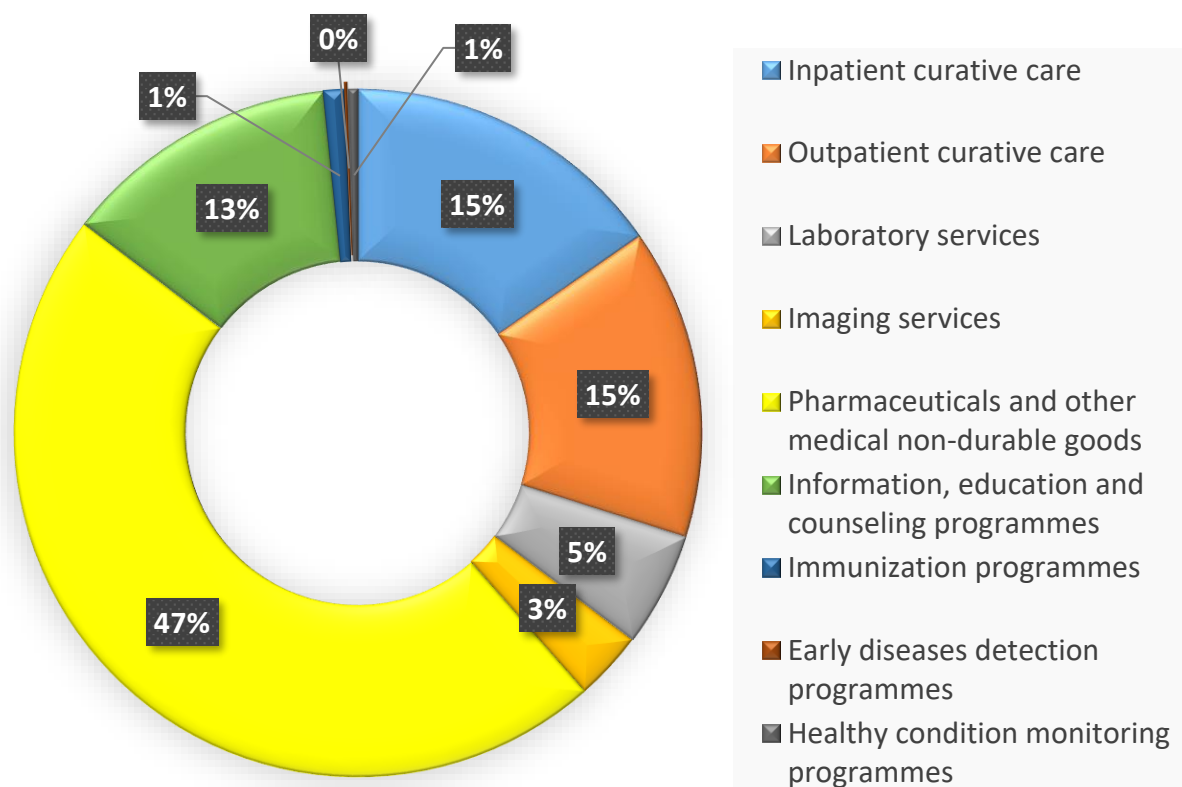
The Bangladesh National Health Accounts (BNHA) analyzes and systematically records the purpose or functional uses of health care expenditures. ESP expenditure extracted from the BNHA data shows that around 41% (Taka 156.6 billion) of the ESP expenditures are made for procurement of pharmaceuticals and other medical non-durable goods (**Table 23**). Expenditure related to Inpatient and Outpatient curative care were Taka 51 billion and Taka 48.8 billion respectively. Information, education and counseling programmes was Taka 43.5 billion.

Table 23: Expenditure by Core ESP Services, 2020

Goods and Services	Maternal, Neonatal, Child and Adolescent	Family Planning (FP)	Nutrition	Communi cable Diseases	Non-Communi cable Diseases	Managem ent of other common conditions	Total
Values are in Taka Million							
Inpatient curative care	34,050	31	856	3,157	4,059	8,908	51,061
Outpatient curative care	33,885	185	2,340	609	3,112	8,654	48,785
Laboratory services	7,493	15	655	413	5,743	3,595	17,913
Imaging services	4,507	9	394	248	3,455	2,162	10,776
Pharmaceuticals and other medical non-durable goods	39,309	1	6,173	2,143	75,034	33,890	156,551
Information, education and counseling programmes	17,948	13,523	-	3,570	-	8,414	43,455
Immunization programmes	3,332	-	-	-	-	-	3,332
Early diseases detection programmes	-	-	13	441	33	-	486
Early diseases detection programmes	-	-	-	-	-	1,543	1,543
Epidemiological surveillance and risk and disease control programmes	-	-	-	9,520	-	-	9,520
Governance and health system administration	4,801	23	191	664	712	2,328	8,719
Capital, research and development	14,853	69	626	1,995	2,657	7,198	27,397
Total ESP	160,179	13,855	11,247	22,761	94,806	76,691	379,537

Expenditure made on curative care, which is the combination of inpatient and outpatient services, accounts for 30% of ESP (**Figure 3**). Preventive care is health care that helps people stay healthy by sharing information, providing education and counseling to prevents disease, injury, or illness. In 2020, share of preventive care spending including immunization and early disease detection as percentage of total ESP expenditure was around 14%.

Figure 3: Share of ESP Services by Healthcare Functions, 2020



A breakdown of ESP expenditure on curative and preventive care indicates that 83% is spent on curative care and 17% on preventive care (**Table 24**) of current health expenditure. The largest ESP expenditure component is on Maternal, Neonatal, Child and Adolescent diseases (Taka 140.5 billion) which translates to 41% of total spending, followed by Non-communicable (Taka 91.4 million), around 27% of total ESP outlay. In 2020, Taka 67.2 billion was spent on Management of Other Common Conditions.

Table 24: Breakdown of ESP Expenditure by Preventive and Curative Care, 2020

Core ESP Classification	Curative Care		Preventive		Total	
	Million Taka	Col. %	Million Taka	Col. %	Million Taka	Col. %
Maternal, Neonatal, Child and Adolescent	119,245	42%	21,280	36%	140,525	41%
Row %	85%		15%		100%	
Family Planning (FP)	241	0%	13,523	23%	13,763	4%
Row %	2%		98%		100%	
Nutrition	10,417	4%	13	0%	10,430	3%
Row %	100%		0%		100%	
Communicable Diseases	6,571	2%	13,531	23%	20,102	6%
Row %	33%		67%		100%	
Non-Communicable Diseases	91,404	32%	33	0%	91,436	27%
Row %	100%		0%		100%	
Management of other common conditions	57,208	20%	9,957	17%	67,165	20%
Row %	85%	0%	15%	0%	100%	
Total ESP	285,085	100%	58,336	100%	343,421	100%
Row %	83%		17%		100%	

In 2020, total ESP expenditure on Maternal, Neonatal, Child and Adolescent Health (MNCAH) was approximately Taka 160.2 billion (**Table 25**). The largest component of MNCAH expenditure is on Child Health (Taka 85.6 billion) followed by Normal Delivery (Taka 32.2 billion) and Preventive care (Taka 21.3 billion).

In 2020, total ESP expenditure on Family Planning was approximately Taka 13.9 billion. Preventive care, primarily in the form of Information, education and counselling programme interventions, are the biggest ESP expenditures under the family planning activities – Taka 13.5 billion (**Table 26**).

In 2020, total ESP expenditure on nutrition was approximately Taka 11.2 billion. Maternal nutrition (Taka 5.5 billion) and child nutrition (Taka 5.8 billion) are the main areas of ESP related nutrition expenditures (**Table 27**). Outlays are made primarily on drugs for outpatient curative care (Taka 1.6 billion), including nutritional interventions.

Total ESP expenditure on Communicable Disease was approximately Taka 22.8 billion. The highest outlay is on preventive care (Taka 13.5 billion), followed by tuberculosis (Taka 3.1 billion) and case management (Taka 4.5 billion) – **Table 28**.

Table 25: ESP Expenditure on Maternal, Neonatal, Child and Adolescent Health (MNCAH) by Functions, 2020

MNCAH ESP Components	Inpatient curative care	Outpatient curative care	Laboratory services	Imaging services	Pharmaceuticals and other medical non-durable goods	Information, education and counseling programmes	Immunization programmes - Expanded Programme on	Governance and health system administration	Capital, research and development	Total
	Values are in Taka Million									
Adolescent Health	55	-	6	4	34	-	-	2	6	107
Antenatal care (ANC)	2,264	2,636	969	583	8,965	-	-	520	1,623	17,559
Child Health	9,851	24,688	4,422	2,660	28,757	-	-	3,740	11,434	85,552
Immediate newborn Care	326	-	26	15	39	-	-	11	34	451
Neonatal emergencies	-	-	0	0	0	-	-	-	0	1
Normal delivery	20,515	6,426	1,895	1,140	179	-	-	474	1,581	32,210
Obstetrical emergencies	1,024	116	85	51	75	-	-	44	137	1,532
Postnatal Care (PNC)	15	19	90	54	1,259	-	-	10	39	1,487
Preventive care	-	-	-	-	-	17,948	3,332	-	-	21,280
	-	-	-	-	-	-	-	-	-	-
Total MNCAH	34,050	33,885	7,493	4,507	39,309	17,948	3,332	4,801	14,853	160,179

Table 26: ESP Expenditure on Family Planning, 2020

FP ESP Components	Inpatient curative care	Outpatient curative care	Laboratory services	Imaging services	Pharmaceuticals and other medical non-durable goods	Information, education and counseling programmes	Governance and health system administration	Capital, research and development	Total
	Values are in Taka Million								
Post-partum	30.5	-	2.1	1.3	-	-	4.9	14.6	53.4
Pre-Conception Care	-	184.9	13.0	7.8	1.1	-	18.0	54.2	279.0
Preventive care	-	-	-	-	-	13,522.6	-	-	13,522.6
	-	-	-	-	-	-	-	-	-
Total	30.5	184.9	15.1	9.1	1.1	13,522.6	22.9	68.8	13,855.0

Table 27: ESP Expenditure on Nutrition, 2020

Nutrition ESP Components	Inpatient curative care	Outpatient curative care	Laboratory services	Imaging services	Pharmaceuticals and other medical non-durable goods	Early diseases detection programmes	Governance and health system administration	Capital, research and development	Total
Child nutrition	632.2	729.8	347.7	208.8	3,615.0	-	49.9	180.9	5,764.4
Maternal nutrition	223.8	1,609.7	306.8	184.9	2,558.3	-	141.1	445.0	5,469.7
Preventive care	-	-	-	-	-	12.6	-	-	12.6
	-	-	-	-	-	-	-	-	-
Total	855.9	2,339.6	654.6	393.8	6,173.3	12.6	191.0	625.9	11,246.6

Table 28: ESP Expenditure on Communicable Disease, 2020

Communicable Disease ESP Components	Inpatient curative care	Outpatient curative care	Laboratory services	Imaging services	Pharmaceuticals and other medical non-durable goods	Information, education and counseling programmes	Early diseases detection programmes	Epidemiological surveillance and risk and disease control	Governance and health system administration	Capital, research and development	Total
Care and treatment	42	-	18	11	214	-	-	-	9	28	321
Case management	2,177	295	178	107	72	-	-	-	428	1,276	4,533
Leprosy	119	130	64	39	673	-	-	-	51	155	1,231
Preventive care	-	-	-	-	-	3,570	441	9,520	-	-	13,531
Tuberculosis	819	184	153	92	1,184	-	-	-	177	536	3,144
	-	-	-	-	-	-	-	-	-	-	-
Total	3,157	609	413	248	2,143	3,570	441	9,520	664	1,995	22,761

Non-communicable disease (NCD) screening and management outlay is the major component under the non-communicable core ESP component. In 2020, Taka 80.5 billion was spent on NCD screening and management (**Table 29**). It constitutes 85% of the total expenditure under this category. Other chronic diseases related spending includes Diabetes mellites (Taka 8 billion), Sexual and Gender-Based Violence (Taka 5.8 billion), and Preventive care (Taka 33 million).

Table 29: ESP Expenditure on Non-Communicable Disease, 2020

Non-Communicable ESP Components	Inpatient curative care	Outpatient curative care	Laboratory services	Imaging services	Pharmaceuticals and other medical non-durable goods	Information, education and counseling programmes	Early diseases detection programmes	Total
Values are in Taka Million								
Arsenocosis	-	-	-	-	8.9	-	-	8.9
Cervical cancer	-	98.5	2.1	2.0	-	-	-	102.5
Diabetes mellites (DM)	1,660.1	916.6	761.7	293.0	4,455.0	-	-	8,086.4
NCD screening and management	2,088.3	1,148.4	2,058.4	1,106.8	67,264.1	-	-	73,666.1
Preventive care	-	-	-	-	-	4,206.8	32.7	4,239.6
Sexual and Gender-Based Violence	311.0	948.6	184.6	148.3	3,305.9	-	-	4,898.4
Total	4,059.4	3,112.1	3,006.8	1,550.2	75,033.9	4,206.8	32.7	91,001.9

ESP expenditure on Management of Common Conditions was approximately Taka 76.7 billion. Expenditures on Geriatric care (Taka 35.8 billion), preventive care (Take 10 billion) Dental Care (Taka 8 billion), Treatment of common skin diseases (Taka 7.9 billion), and eye care (Taka 6.3 billion) are the main components under the Management of Common Conditions (**Table 30**).

Table 30: ESP Expenditure on Management of Common Conditions, 2020

Management of Common Conditions ESP Components	Inpatient curative care	Outpatient curative care	Laboratory services	Imaging services	Pharmaceuticals and other medical non-durable goods	Information, education and counseling programmes	Healthy condition monitoring programmes	Governance and health system administration	Capital, research and development	Total
Values are in Taka Million										
Dental Care	18	2,426	392	236	3,173	-	-	488	1,474	8,208
Ear Care	407	1,874	325	196	2,371	-	-	294	897	6,364
Emergency Care	2,237	461	239	144	729	-	-	385	1,156	5,351
Eye Care	123	154	132	80	1,620	-	-	59	186	2,353
Geriatric care	5,122	2,183	2,055	1,236	22,108	-	-	729	2,345	35,779
Other communicable diseases	168	47	42	25	384	-	-	27	83	777
Preventive care	-	-	-	-	-	8,414	1,543	-	-	9,957
Rabies	-	-	0	0	0	-	-	-	0	0
Treatment of common skin diseases	833	1,508	408	246	3,506	-	-	345	1,056	7,902
	-	-	-	-	-	-	-	-	-	-
Total	8,908	8,654	3,595	2,162	33,890	8,414	1,543	2,328	7,198	76,691

ESP Expenditure by Providers

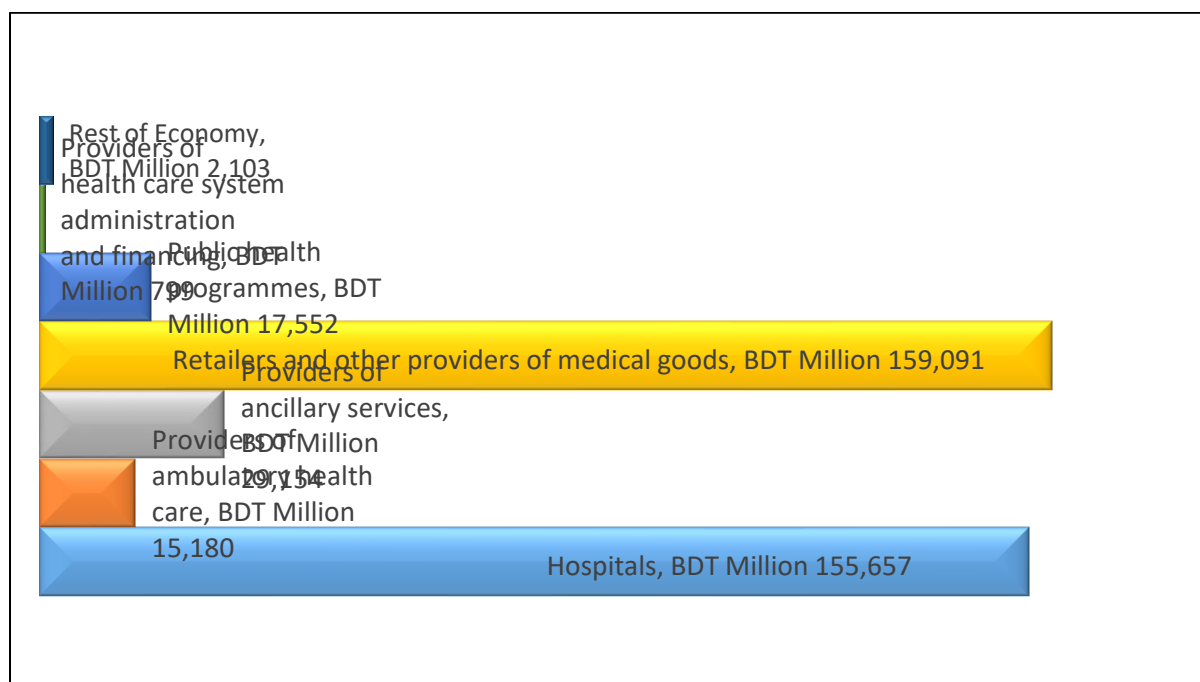
Establishment that are dedicated towards providing services for the improvement of health care in general is identified as health care providers. BNHA classifies these establishments following the System of Health Accounts 2011 (SHA 2011) guidelines, where hospitals and outpatient centers are key institutes providing direct health care to a patient. Retail drug outlets in Bangladesh known as pharmacies is the largest provider of ESP services accounting for Taka 159 billion in 2020 (**Table 31** and **Figure 4**).

Hospitals are the second largest ESP health care providers spending Taka 155.7 billion in 2020, offering curative care through its inpatient and outpatient services. In addition, Taka 15.2 billion worth of curative care related to ESP was provided by ambulatory services providers. Public health programs are carried out by the government and NGOs as preventive measures to avoid sickness and to lead a healthy life. In 2020, Taka 17.6 billion was spent on preventive care related to ESP services. Spending on ancillary services providers (Taka 29.1 billion) providing pathological and imaging services (**Table 31**), is the next major area of spending through providers.

Table 31: ESP Expenditure by Healthcare Providers, 2020

Healthcare Providers	Maternal, Neonatal, Child and Adolescent	Family Planning (FP)	Nutrition	Communi-cable Diseases	Non-Communi-cable Diseases	Management of other common conditions	Total
Values are in Taka Million							
Hospitals	90,975	10,676	3,298	12,896	9,174	28,637	155,657
Providers of ambulatory health care	9,072	226	597	2,442	-	2,843	15,180
Providers of ancillary services	12,195	25	1,065	672	9,347	5,850	29,154
Retailers and other providers of medical goods	39,947	1	6,273	2,178	76,251	34,440	159,091
Public health programmes	7,670	2,075	13	3,590	33	4,171	17,552
Providers of health care system administration and financing	-	799	-	-	-	-	799
Rest of Economy	319	54	-	983	-	748	2,103
							-
Total ESP	160,179	13,855	11,247	22,761	94,806	76,691	379,537

Figure 4: Share of Core ESP Services by Providers, 2020



Of the Taka 160.2 billion spent on Maternal, Neonatal, Child and Adolescent Health (MNCAH) in 2020, hospitals are the biggest provider of such services (Taka 91 billion), followed by Retailers and other providers of medical goods (Taka 40 billion), and Providers of ancillary services (Taka 12.2 billion) (Table 32). Considering that MNCAH is targeted mother and children, relatively low expenditure on medicine and pharmaceuticals (Taka 40 billion) compared to Taka 91 billion on hospital services is a good sign.

Table 32: ESP Expenditure on Maternal, Neonatal, Child and Adolescent Health (MNCAH) by Providers, 2020

MNCAH ESP Services	Hospitals	Providers of ambulatory health care	Providers of ancillary services	Retailers and other providers of medical goods	Public health programmes	Rest of Economy	Total
Values are in Taka Million							
Adolescent Health	62	-	10	35	-	-	107
Antenatal care (ANC)	6,221	652	1,577	9,110	-	-	17,559
Child Health	41,180	7,951	7,197	29,224	-	-	85,552
Immediate newborn Care	370	-	42	40	-	-	451
Neonatal emergencies	-	-	0	1	-	-	1
Normal delivery	28,944	-	3,084	182	-	-	32,210
Obstetrical emergencies	1,318	-	138	76	-	-	1,532
Postnatal Care (PNC)	60	-	147	1,280	-	-	1,487
Preventive care	12,821	470	-	-	7,670	319	21,280
	-	-	-	-	-	-	-
Total MNCAH	90,975	9,072	12,195	39,947	7,670	319	160,179

Public health programs implemented by the Director General Health Service and Director General Family Planning accounts for Taka 7.6 billion. Hospitals are the biggest provider of public health programmes focusing on preventive measures and pre-conception care (Taka 13.9 billion) in 2020 (**Table 33**). The second largest outlay of Taka 2.1 billion is through public health programs on preventive care.

Table 33: ESP Expenditure on Family Planning (FP) by Providers, 2020

FP ESP Services	Hospitals	Providers of ambulatory health care	Providers of ancillary services	Retailers and other providers of medical	Public health programmes	Providers of health care system administration and	Rest of Economy	Total
	Values are in Taka Million							
Post-partum	49.9	-	3.5	-	-	-	-	53.4
Pre-Conception Care	256.8	-	21.2	1.1	-	-	-	279.0
Preventive care	10,369.6	225.7	-	-	2,075.1	798.5	53.7	13,522.6
	-	-	-	-	-	-	-	-
Total	10,676.3	225.7	24.6	1.1	2,075.1	798.5	53.7	13,855.0

Retailers and other providers of medical goods (Taka 6.3 billion) and hospitals (Taka 3.3 billion) are the two biggest providers of goods and services relating to nutrition under ESP (**Table 34**). In 2020, total ESP expenditure on Communicable Disease was approximately Taka 22.8 billion. Hospitals (Taka 12.9 billion) and public health programs implemented by government and NGOs (Taka 3.4 billion) are the two major providers addressing communicable disease phenomena (**Table 35**).

In 2020, total ESP expenditure on non-Communicable Disease was approximately Taka 94.8 billion. The main provider of goods and services on these diseases are retailers and other providers of medical goods (Taka 76.2 billion). Other service providers are hospitals (Taka 9.2 billion), and providers of ancillary services (Taka 9.3 billion) -- **Table 36**. In 2020, total ESP expenditure on Management of Common Conditions was approximately Taka 76.7 billion. Retailers and other providers of medical goods (Taka 34.4 billion), and hospitals (Taka 28.6 billion) are the two major providers of services under this category of common conditions.

Table 34: ESP Expenditure on Nutrition by Providers, 2020

Nutrition ESP Services	Hospitals	Providers of ambulatory health care	Providers of ancillary services	Retailers and other providers of medical goods	Public health programmes	Total
	Values are in Taka Million					
Child nutrition	1,525.1	-	565.6	3,673.7	-	5,764.4
Maternal nutrition	1,772.8	597.3	499.7	2,599.8	-	5,469.7
Preventive care	-	-	-	-	12.6	12.6
	-	-	-	-	-	-
Total	3,297.9	597.3	1,065.3	6,273.5	12.6	11,246.6

Table 35: ESP Expenditure on Communicable Disease by Providers

Communicable Diseases ESP Services	Hospitals	Providers of ambulatory health care	Providers of ancillary services	Retailers and other providers of medical goods	Public health programmes	Rest of Economy	Total
	Values are in Taka Million						
Care and treatment	74.4	-	29.1	217.5	-	-	321.0
Case management	4,170.2	-	289.4	73.3	-	-	4,532.9
Leprosy	442.3	-	104.8	684.0	-	-	1,231.2
Preventive care	6,516.3	2,441.5	-	-	3,590.3	982.9	13,531.0
Tuberculosis	1,692.7	-	248.6	1,203.1	-	-	3,144.4
	-	-	-	-	-	-	-
Total	12,896.0	2,441.5	671.9	2,177.9	3,590.3	982.9	22,760.6

Table 36: ESP Expenditure on Non-Communicable Disease by Providers

Non-Communicable Diseases ESP Services	Hospitals	Providers of ancillary services	Retailers and other providers of medical goods	Public health programmes	Total
Arsenocosis	-	1.0	9.0	-	10.0
Cervical cancer	175.0	11.2	-	-	186.2
Diabetes mellitues (DM)	2,982.5	799.6	4,527.3	-	8,309.4
screening and management based on to	4,138.7	8,016.5	68,355.4	-	80,510.7
Preventive care	-	-	-	32.7	32.7
Sexual and Gender-Based Violence	1,878.1	519.1	3,359.5	-	5,756.8
0	-	-	-	-	-
Total	9,174.3	9,347.4	76,251.2	32.7	94,805.7

Table 37: ESP Expenditure on Management of Other Common Conditions by Providers, 2020

Management of Other Common Conditions ESP Services	Hospitals	Providers of ambulatory health care	Providers of ancillary services	Retailers and other providers of medical goods	Providers of health care system administration and financing	Rest of Economy	Total
	Values are in Taka Million						
Dental Care	4,137.9	206.1	638.7	3,224.8	-	-	8,207.5
Ear Care	3,027.7	398.2	528.9	2,409.2	-	-	6,364.0
Emergency Care	4,221.2	-	389.6	740.5	-	-	5,351.3
Eye Care	491.6	-	215.6	1,645.8	-	-	2,353.0
Geriatric care	9,289.8	678.0	3,344.5	22,466.6	-	-	35,778.9
Other communicable diseases	318.5	-	68.2	390.2	-	-	776.8
Preventive care	4,278.8	758.7	-	-	4,171.3	747.9	9,956.7
Rabies	-	-	0.0	0.4	-	-	0.4
Treatment of common skin diseases	2,872.0	802.3	664.8	3,562.7	-	-	7,901.9
	-	-	-	-	-	-	-
Total	28,637.4	2,843.4	5,850.5	34,440.2	4,171.3	747.9	76,690.6

IV. Limitations of the Data and Analysis

It would have been ideal if data for all expenditure components (inpatient, outpatient, public and private) of this analysis were from the same year. Bangladesh National Health Accounts (BNHA) provided most recent expenditure data on health care expenditure, but patient data used for this study varies. Considering the limitation of resources, this study used 2017 public patient data while patient data used for private hospitals and outpatient centers expenditure analysis is relatively recent. The variation in data year for patient information needs to be acknowledged as a problem. Nevertheless, in general, changes in disease pattern normally takes a long time. Hence, two to three years gap between public and private patient data can be considered as a minor limitation of this study.

To link the pharmacy medicine sales with diseases, the study relied on the Pharmacy Prescription Survey 2018 (PPS 2018). The PPS 2018 survey was a Health Economics Unit activity under which data on pharmacy customers and sales was collected. It was a nationally representative sample-based survey carried out by IQIIVA/IMS Bangladesh. A limitation of this survey is that it only included pharmacy customers that came to purchase medicine with a prescription. This procedure of data collection is consistent with the method IQIIVA/IMS follows in estimating market value of pharmaceutical sales. It is considered as a limitation of the data for a country like Bangladesh where most drugs can be purchased over the counter, i.e., without a prescription.

Preventive care expenditure of the government and NGOs are reported directly from the BNHA estimates. This study attempted to gather further breakdown of the preventive care expenditure by interviewing the Line Directors of various health programs of the Ministry of Health and Family Welfare who are responsible for implementation of various public health programs related to ESP. Due to the ongoing Covid-19 pandemic, physical interviews with the Line Directors was not possible.

In preparing the mapping key, each ESP intervention was matched with an appropriate International Classification of Disease version 10 (ICD-10). During the mapping exercise, it was noticed that there are 234 interventions that are considered under ESP. It was linked to 1,416 ICD-10 codes. The extensive listing of ICD-10 code allowed inclusion of additional diseases and conditions under the ESP services. However, it also created complications when same ICD-10 codes appeared under two or more core ESP services. For example, conditions covered as part of Maternal Health concurrently appeared under Neonatal Care or Family Planning. In such a situation those expenditures were booked as outlays on Maternal Health due to lack of supporting data.

V. Conclusions

Essential Health Service Package (ESP) in Bangladesh includes a set of services identified by the Ministry of Health and Family Welfare which includes Maternal, Neonatal, Child and Adolescent Health (MNCAH), Family Planning, Nutrition, Communicable and Non-communicable diseases, and Management of selected common conditions. A well-defined target group is considered beneficiaries of ESP services. The task of tracking ESP expenditure from the BNHA involves extracting the expenditure share of ESP beneficiaries accounted under the Bangladesh National Health Accounts (BNHA). For tracking of ESP expenditure, mapping keys were used and only expenditure related to the target population is reported as findings of this study.

The following are the key overall findings from the ESP expenditure tracking study:

- Total expenditure on ESP in 2020 in Bangladesh was Taka 380 billion, which is 48.8% of Total Health Expenditure (CHE). Per capita spending on ESP is Taka 2,235 (\$26); per-capita ESP spending by public and private for 2020 was Taka 593 (\$7), and Taka 1,642 (\$19) respectively. The share of public and private (including NGOs) expenditure on ESP are 27% and 73% respectively;
- Highest per-capita public spending is on Maternal, Neonatal, Child and Adolescent -- Taka 943; Second highest per-capita is on Non-Communicable diseases -- Taka 532; a key expenditure component of the Non-communicable disease is Sexual and Gender-Based Violence.
- Taka 157 billion (42%) of ESP expenditure is relating to procurement of pharmaceuticals and other medical non-durable goods. The total amount is spent exclusively by households as Out-of-Pocket (OOP) expenditure.
- A breakdown of ESP expenditure on curative and preventive care indicates that 85% is spent on curative care and 15% on preventive care. The largest ESP expenditure component is on Maternal, Neonatal, Child and Adolescent (Taka 160.2 billion) which translates to 41% of total spending, followed by Non-communicable diseases (Taka 94.8 billion), around 25% of total ESP outlay. Curative care expenditure is higher for female for each of the six categories compared to male.

- In 2020, around 62% of the inpatient care related to ESP was availed from public hospitals. For outpatient services, people depend more on the private sector compared to public facilities. Hospitals are the second largest ESP health care providers spending Taka 156 billion in 2020, offering curative care through its inpatient and outpatient services.
- Only 15% of the ESP expenditure are made on preventive care. Considering the type of health care interventions offered under ESP, 85% expenditure on curative care is too high. Disaggregation of the curative care expenditure reveals that around 40% of the ESP expenditure Taka 157 billion was spent on pharmaceuticals.
- Inpatient care services offered under the ESP is limited but people rely more on the government hospitals for the services. In 2020, around 62% of the inpatient care related to ESP was availed from the public hospital.
- For outpatient services, people depend more on private sector compared to public facilities. A probable reason could be the issue of accessibility as outpatient services provided by the public facilities are offered for a limited time period each day while private sector is more flexible.

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