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REPRODUCTIVE, MATERNAL, NEWBORN, AND CHILD HEALTH (RMNCH) EXPENDITURE BANGLADESH

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Health, Nutrition & Population

January 2016

This publication was produced for review by the United States Agency for International Development.
It was prepared by Najmul Hossain for the Health Finance and Governance Project.

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DATE January 2016

Cooperative Agreement No: AID-OAA-A-12-00080

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Recommended Citation: Najmul Hossain, January 2016, *Reproductive, Maternal, Newborn, and Child Health (RMNCH) Expenditure Bangladesh.* Bethesda, MD: Health Finance & Governance Project, Abt Associates Inc.

A pregnant woman in Bangladesh receives a check-up. © 2006 Bangladesh Center for Communication Programs, Courtesy of Photoshare

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REPRODUCTIVE, MATERNAL, NEWBORN, AND CHILD HEALTH (RMNCH) EXPENDITURE BANGLADESH

DISCLAIMER

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CONTENTS

List of Tables

List of Charts

ACRONYMS

BBS	Bangladesh Bureau of Statistics
BNHA	Bangladesh National Health Accounts
CGA	Controller General of Accounts
CH	Child Health
CHE	Current Health Expenditure
DH	District Hospital
FES	Facility Efficiency Study
FES 2011	Facility Efficiency Survey 2011
FP	Family Planning
FS	Financing Schemes Revenue
GH	General Hospital
GOB	Government of Bangladesh
HC	Healthcare Functions
HF	Healthcare Financing Schemes
HP	Healthcare Providers
IP	Inpatient
IARS 2006-07	Inpatient Admissions Records Survey 2006-07
ICD10	International Classification for Disease
ICHA	International Classification for Health Accounts
ICPC-2	International Classification of Primary Care
MCH	Medical College Hospital
MCWC	Maternal and Child Welfare Center
MOHFW	Ministry of Health and Family Welfare
NHA	National Health Accounts
NHA3	Third National Health Accounts
NHA4	Fourth National Health Accounts
OECD	Organization for Economic Co-operation and Development (OECD)
OOP	Out of Pocket (OOP)
OP	Outpatient
PHOMS 2007	Public Hospital Outpatient Morbidity Survey 2007
RMN	Reproductive and Maternal Health
RMNCH	Reproductive Maternal Neonatal and Child Health

SHA	System of Health Accounts
THE	Total Health Expenditure
UHC	Upazila Health Complex
USAID	United States Agency for International Development
WHO	World Health Organization

ACKNOWLEDGMENTS

We would like to thank all members Bangladesh National Health Accounts (BNHA) Cell, specifically Mr. Ashadul Islam, Director General (Additional Secretary) of the Health Economics Unit and Team Leader BNHA Cell and Tahmina Begum, World Bank consultant, who provided critical contributions to this analysis. As well, we thank Mursaleena Islam, Yann Derriennic, and Tesfaye Ashagari of HFG for their technical inputs. Aasit Nanavati of HFG provided production support.

We thank USAID for the funding that made this work possible and we express special appreciation to Dr. Niaz Chowdhury of USAID Bangladesh for his support.

1. INTRODUCTION

National Health Accounts (NHA) presents expenditure flows – both public and private – within the health sector of a country. They describe, in an integrated way, the sources, uses and channels for all funds utilized in the whole health system. NHA shows the amount of funds provided by major financing agents (e.g. government, firms, households), and how these funds are used in the provision of final services, organized according to the institutional entities providing the services (e.g. hospitals, outpatient clinics, pharmacies, traditional medicine providers) and types of service (e.g. inpatient and outpatient care, dental services, medical research, etc.).

The latest edition of the Bangladesh National Health Accounts (BNHA), also termed as the fourth round of BNHA, tracks the total health expenditure in Bangladesh between the fiscal years 1997 to 2012. It cross-stratified and categorized healthcare expenditures by financing, provision and consumption on an annual basis. For production of BNHA, System of Health Accounts (SHA) guideline is followed and the fourth round of BNHA is produced using the SHA 2011 guideline. Introduction of SHA 2011 has added two new classifications in the financing dimension that provide more specific answers to the questions: "what instruments are used for fund raising?" and "how the health resources are managed?" This new classification offers better interpretation of public and private funding in the healthcare sector.

An useful application of NHA data sets and the conceptual framework is to construct NHA secondary analysis (previously subaccounts) whereby expenditure outlays can be studied for specific disease (e.g. tuberculosis, HIV/AIDS), location specific (e.g. urban areas) or a target group of the population (e.g. specific gender, child). This paper estimates Reproductive, Maternal and Newborn and Child Health (RMNCH) expenditure for Bangladesh in accordance with the System of Health Accounts 2011 (SHA 2011) framework.

A secondary analysis of BNHA data for production of Reproductive, Maternal and Newborn and Child Health (RMNCH) estimates requires additional data sources and methods to analyze each component of spending. More specifically, the secondary analysis includes three separate estimates for (i) reproductive, (ii) maternal and neonatal and (iii) child health. Considerably effort was made to minimize double counting of expenditure, due to definitional overlap. Hospitals, ambulatory providers and pharmacies are the three major providers that offer direct RMNCH healthcare service. Their respective expenditure estimates are accounted under BNHA. Public Health Program of the Government and NGOs also includes RMNCH related expenditure. To estimate the RMNCH share of hospital and outpatient centers expenditures, user level data by age, sex and disease are a prerequisite.

The objective of this analysis is to estimate RMNCH related expenditure made at the patient level by public and private sector institutions as well as households. RMNCH related expenditure made under various public health program of the government and NGOs are also analyzed. Estimating RMNCH expenditure using the BNHA data requires identifying relevant services and programs offered and implemented by various providers in accordance with their respective functions. Studies conducted by other countries suggest that expenditure on healthcare is highly correlated between age, sex and reason for encounter (diseases). Expenditure on healthcare also varies based on the type of service providers and functions such as inpatient or outpatient care.

2. METHODOLOGY

National Health Accounts (NHA) and Reproductive, Maternal and Newborn and Child Health (RMNCH)

Total healthcare expenditure reported under the Bangladesh National Health Accounts (BNHA) 1997-2012 is used as the basis for analysis of the Reproductive, Maternal and Newborn and Child Health (RMNCH) expenditure. BNHA follows the System of Health Accounts (SHA) framework which provides systematic description of the financial flows related to healthcare services and providers. Considering local perspective, boundaries of BNHA for estimating Total Health Expenditure (THE) is defined differently from SHA. BNHA consider expenditure on traditional medicine, medical education and research and gross capital formation as part of THE. According to SHA 2011 guideline expenditures on traditional medicine are reported as "Reporting Items" and medical education, research is treated as part of human capital development. Therefore investment on medical education and gross capital formation at the healthcare facilities are reported under a separate Capital Account. A summary of Bangladesh total healthcare expenditure for 2012 using BNHA and SHA framework is provided in Table 1.

According to BNHA Total Health Expenditure (THE) in Bangladesh is estimated at Taka 325.1 billion ($4.1 billion) in 2012 (Table 1). BNHA reported THE is inclusive of traditional medicine, medical education and research and capital expenditure, which constitute a total of Taka 28.2 billion for 2012. To make the Bangladesh RMNCH estimates internationally comparable it was decided that only Current Health Expenditure (CHE) according to SHA 2011 framework will be used for RMNCH analysis. However, due to lack of data, expenditure estimates related to governance and health system and financing administration were excluded from this analysis. Such outlay accounts for Taka 16.9 billion which is around 6% of CHE, and therefore 94% of CHE or 87% of THE is accounted for RMNCH analysis.

Table 1: BNHA and SHA Framework Total Healthcare Expenditure for 2012

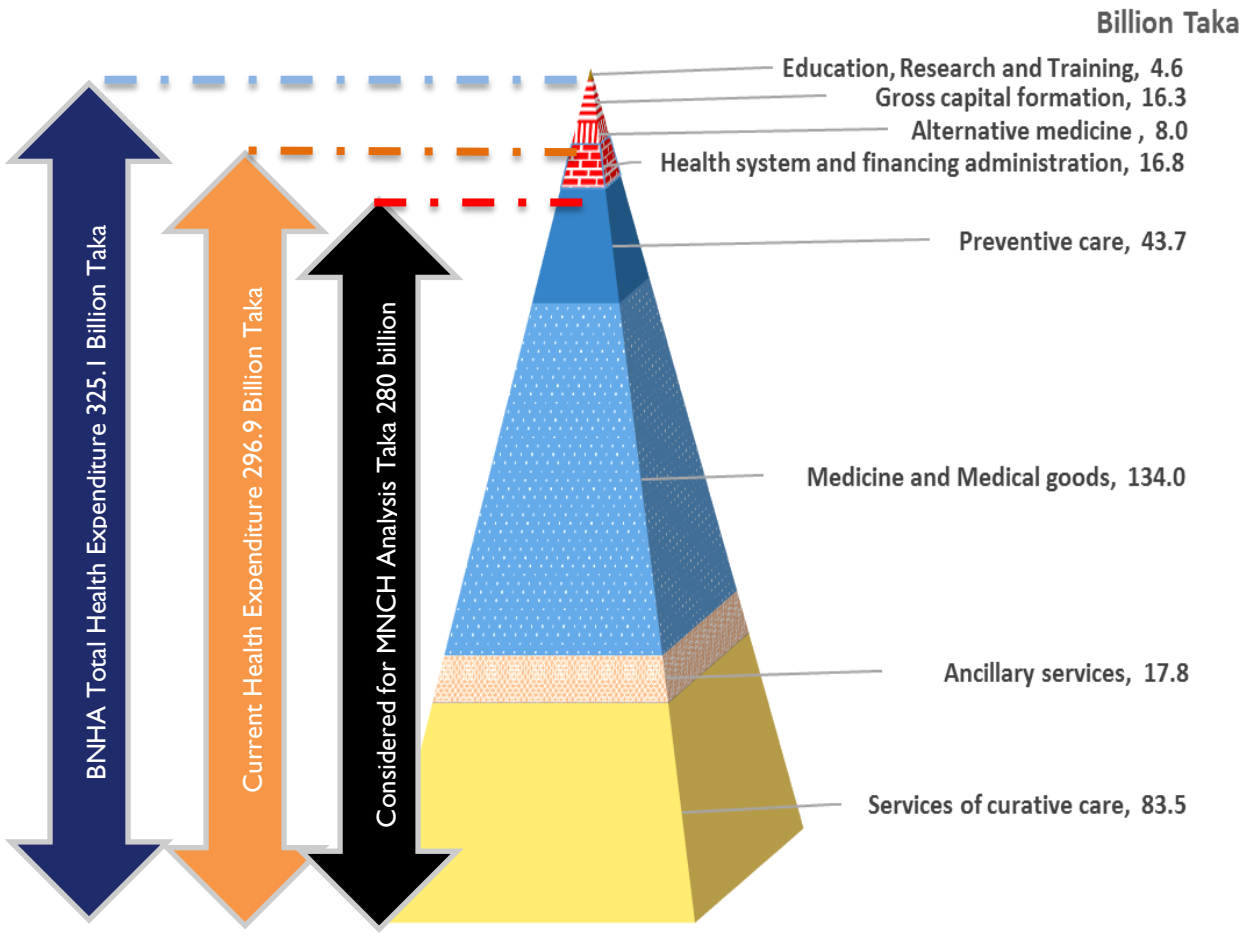
Healthcare Functions	Financing Schemes (Million Taka)					% of CHE (SHA 2011)	% of BNHA THE
	Public	Private Corporations and NGOs	Household	Rest of the World[1]	Total		
Curative care	26,873	3,420	44,814	8,524	83,632	28%	26%
Rehabilitative care	113				113	0%	0%
Long term care (health)	159				159	0%	0%
Ancillary services	15	5	17,790		17,810	6%	5%
Medical goods		12	133,997		134,009	45%	41%
Preventive care	27,332	3,193		13,753	44,278	15%	14%
Governance and health system and financing administration	9,752	879	1,367	4,868	16,865	6%	5%
Current HealthExpenditure (CHE)	64,244	7,509	197,968	27,144	296,866	100%	
Reporting Items	168		7,852		8,020		2%
Capital Items	10,659	9,550	-	-	20,209		6%
Total BNHA Health Expenditure (BNHA-THE)	75,071	17,059	205,820	27,144	325,094		100%

Source: Bangladesh National Health Accounts, 1997-2012

[1] Rest of the world means Development Partner (DP) funding channelled through NGOs

A graphical presentation of total healthcare expenditure under BNHA, SHA 2011 and expenditure functions covered for RMNCH analysis is presented in Chart 1. In summary, the top four functional activities of the pyramid are excluded from the RMNCH analysis.

Chart 1: Coverage of BNHA-THE, CHE and NHA boundaries considered for RMNCH Analysis



Defining boundaries of Reproductive, Maternal, Newborn, and Child Health (RMNCH) can be challenging as some of the disease or conditions overlap with each other. Under this study patients conditions related to Maternal and Newborn care (MN) are identified using International Classification for Diseases code, version 10 (ICD 10) --

Table 2. Child Health (CH) covers expenditure associated to child care for children aged starting from 1 month to less than 5 years. For Reproductive health (RH) definition used by International Conference for Population and Development (ICPD) Programme of Action in the context of primary health care related to reproductive health is used for this analysis and it includes: (a) Family planning; (b) Antenatal, safe delivery and post-natal care; (c) Prevention and appropriate treatment of infertility; (d) Prevention of abortion and management of the consequences of abortion; (e) Treatment of reproductive tract infections; (f) Prevention, care and treatment of STIs and HIV/ AIDS; (g) Information, education and counselling, as appropriate, on human sexuality and reproductive health; (h) Prevention and surveillance of violence against women, care for survivors of violence and other actions to eliminate traditional harmful practices, such as FGM/C; (i) Appropriate referrals for further diagnosis and management of the above**.**

Table 2 below present conditions related to RMNCH by ICD 10 and age limits considered for analysis.

Table 2: RMNCH Classification

Disease/diagnostic category	ICD-10 codes
Reproductive Health (RH)	
Abortions	O00-O08
Antenatal care	Z32-Z36
Postnatal care	Z39
Family Planning, Prevention, care and treatment of STIs and HIV/ AIDS	
Maternal and New born Health (MN)	
Childbirth	O80-O84, Z37,Z38
Other maternal care	O44-O46, O72
Other maternal conditions	O10-O16, O20-O29, O30-O43, O47, O48, O60-O71, O73-O75, O85-O92, O95-O99,O94
Child Health (CH)	Any child age between 1 month to less than 5 years

2.1 Data Sources Used

Multiple data source is used for identifying and reallocating expenditure for; (1) Reproductive; (2) Maternal and New born; (3) Child health, using the definitions and boundaries discussed earlier. Apart from using various data, detailed discussions with the BNHA cell and various stakeholders were organized in tracking of RMNCH component of preventive care expenditure reported under BNHA. A short description of datasets used for the analysis is provided below.

Facility Efficiency Survey 2011 (FES 2011): This database is a nationally representative survey of costs and expenditures at all level of public facilities (primary, secondary and tertiary) operated by the Ministry of Health and Family Welfare (MOHFW). A total of 135 public facilities were survey under this study as part of the ADB TA-6515: Impact of Maternal and Child Health Private Expenditure on Poverty and Inequity in Bangladesh project. The survey data permit the estimation of key cost components at each type of facility.

Inpatient Admissions Records Survey (IARS) 2006-07: A total of 9,867 inpatient data from a sample of nationally representative public hospitals were collected in 2007. This dataset provide information on disease coded with International Classification for Disease (ICD10), age and sex. Medicine prescribed to the patient is also available in this dataset.

Public Hospital Outpatient Morbidity Survey (PHOMS) 2007: A total of 4,683 outpatient data from a sample of nationally representative public hospitals were collected in 2007. This dataset provide information on disease coded with the International Classification of Primary Care (ICPC-2), which classifies information of primary care relating to age and sex. Medicine prescribed to the patient is also available in this dataset.

Pharmacy Patient Survey 2008: A total of 6,648 patients' expenditure on medicine was captured from a sample of nationally representative Retail Drug Outlet collected in 2008. This dataset provide information on disease coded with the International Classification of Primary Care (ICPC-2), which classifies information of primary care relating to age and sex. Medicine prescribed to the patient is also available in this dataset.

2.2 Public Sector Data Analysis

The RMNCH analysis of public sector expenditure was done in two steps. In first step RMNCH related expenditure made under various public health program carried out by the Government and Non-Government Organizations (NGOs) were identified and classified accordingly. For example expenditure associated with family planning and counseling is classified as preventive care expenditure under BNHA following SHA guidelines. For this study all expenditure booked as preventive care in BNHA were revisited and further disaggregation of those expenditure were made. For further disaggregation, technical inputs provided by the BNHA Cell of the Health Economics Unit (HEU) of the Ministry of Health and Family Welfare were incorporated. Electronic data of government expenditure on healthcare allowed identifying expenditure on procurement of vaccines by various providers which treated as expenditure for Child healthcare. Non clinical (preventive care) services provided by the public hospitals and outpatient centers related to RMNCH are also estimated using final results from "Bangladesh Facility Efficiency Study 1998 and 2010".

The second step of the analysis addressed patients expenditure incurred for RMNCH at the hospitals and outpatient centers. Tracking of expenditure at hospitals and outpatient center is done using methodology adopted for Asian Development Bank (ADB) Regional Technical Assistance Project: TA-6515 REG "Impact of Maternal and Child Health Private Expenditure on Poverty and Inequity" and OECD Final Report "Estimating Expenditure By Disease, Age And Gender Under The System Of Health Accounts (SHA) Framework". Both studies recommended that estimates of RMNCH expenditure using National Health Accounts (NHA) should focus on (a) Current Health Expenditure (CHE) and (b) reallocate hospital and outpatient centers expenditures using patient records, generally age, sex and disease.

2.3 Disaggregating RMNCH Expenditure Component

For identifying and disaggregating RMNCH expenditure of the public providers like hospitals and ambulatory service providers, patient data/records collected through facility surveys (IARS 2006-2007 and PHOMS 2007) under the third round of BNHA 1997-2007 is extensively used. Although these datasets are somewhat dated, using them is still arguably the best option available for two reasons. First, they were nationally representative sampled surveys; and secondly, disease information provided in these datasets is already coded using International Classification for Disease (ICD 10) and International Classification of Primary Care (ICPC-2). Coding diseases by ICD 10 and ICPC-2 is a highly technical and labor-intensive exercise, and it is opportunistic that such coded data was accessible under this study.

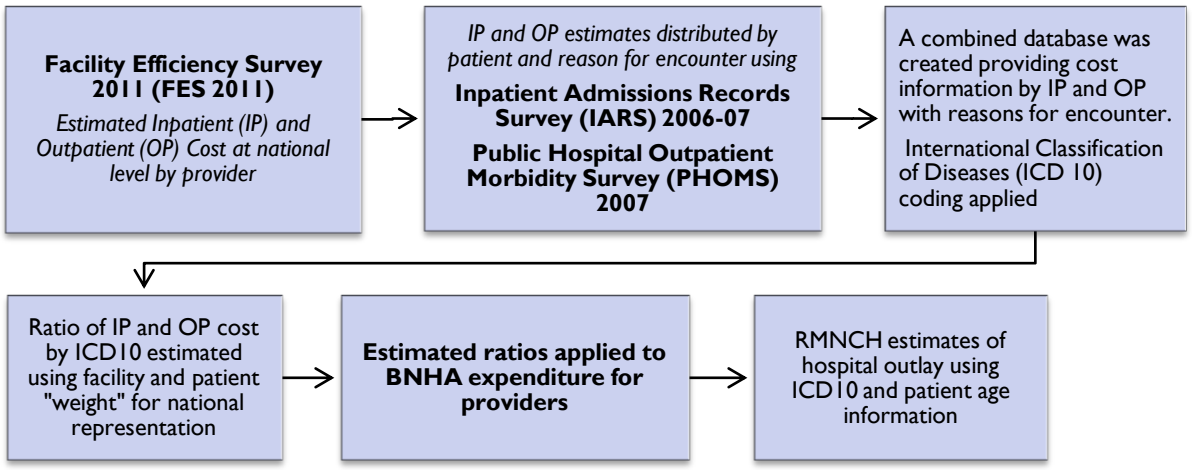
2.4 Allocating Hospital Expenditure by Inpatient and Outpatient

Recurrent expenditure and sample of patient records from 135 nationally representative public healthcare facilities surveyed under the Facility Efficiency Survey 2011 (FES 2011) is used for distributing expenditures by inpatients and outpatients. For each facility, cost incurred by various cost centers like inpatient wards, outpatient clinics, laboratory, pharmacy and radiology departments are studied separately. Costs estimated for each cost center are then redistributed by patient using inpatient records, with age, sex and disease information, collected under the Inpatient Admissions Records Survey 2006-07 (IARS 2006-07). This database provided information on the primary diagnoses (up to three), age, sex, and discharge status of inpatients which were coded using WHO's International Classification of Disease, 10th Revision (ICD-10).

Similarly, outpatient costs estimated under FES 2011 were distributed using the Public Hospital Outpatient Morbidity Survey 2007 (PHOMS 2007) dataset. The reasons for outpatient's visit were originally coded using the WHO-recommended International Classification of Primary Care 2nd Edition (ICPC-2e) and later converted to ICD-10. Finally, one combined database was created which provides cost information by inpatient and outpatient. Final estimates of expenditure by disease or reason for encounter is produced using "weights" that was calculated considering total number of facilities, total inpatient and outpatient served for the year 2011. More technical details of this analysis are available in Technical Report C "ADB Regional Technical Assistance Project: TA-6515 REG, Impact of Maternal and Child Health Private Expenditure on Poverty and Inequity".

Chart 2 provides a schematic presentation of various steps applied for data collation, analysis, and reporting hospital component of RMNCH expenditure estimates for Bangladesh.

Chart 2: Hospital RMNCH Expenditure Estimation – A Schematic Presentation



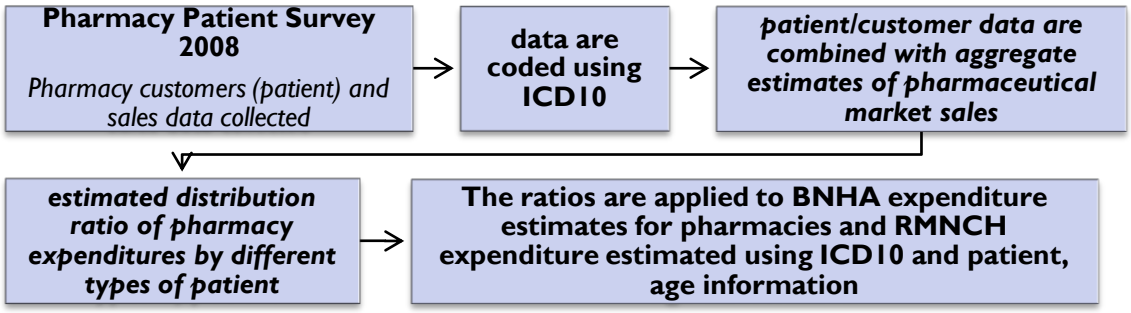
2.5 Private Sector Data Analysis

All four rounds of BNHA show that healthcare expenditure in Bangladesh is dominated by private sector and financed predominantly by the household. According to BNHA, in 2012 private sector spending on CHE was Taka 205.5 billion where Taka 48.2 billion is spend in curative care and Taka 134 billion on procurement of medicine and medical goods. Secondary analysis for tracking of RMNCH expenditure under private sector requires redistribution of this expenditure amongst a sample of nationally representative patients using age, sex and disease/reason for encounter classification.

2.6 Allocating Pharmacy Expenditure by Inpatient and Outpatient

Expenditure on medicine and medical goods is the single largest component of BNHA which constitute 45% of total current health expenditure. Pharmacy customers and sales data collected from the Pharmacy Patient Survey 2008 (PPS 2008) is used in estimating pharmacy expenditures by patient. Patient information including medicine prescribed from a nationally representative sample of pharmacies covering 6,624 patients was collected. Patient data collected from pharmacy survey were originally coded using the WHO-recommended International Classification of Primary Care 2nd Edition (ICPC-2e) and later converted to ICD-10. These data were combined with aggregate estimates of pharmaceutical market sales produced by IMS-Health (Bangladesh) to estimate the distribution of pharmacy expenditures by different types of patient. Chart 3 presents different steps undertaken to estimate expenditure incurred in pharmacies by households.

Chart 3: Schematic Presentation of Distribution of Pharmacy Expenditure



2.7 Allocating Private Hospital Expenditure by Inpatient and Outpatient

Due to unavailability of patient records from Private and NGO operated hospitals this study used the government operated district and general hospital patient data in allocating RMNCH expenditure at the Private and NGO operated hospitals. It is assumed that share of RMNCH related patient in Private and NGO hospitals and outpatient centers are similar to public hospital regardless of condition or complication of the patient. Rational behind using the ratio of district and general hospital as they match structurally in terms of geographical location and size of the hospital based on bed count. Method used for allocating private hospital and outpatient centers expenditure by patient for this analysis is the same that are used for public sector hospitals and outpatient centers.

2.8 Limitations of the study

The methodology applied for RMNCH analysis is based on the SHA/OECD and WHO guidelines. However, for RMNCH, it is still at a developing stage, and requires further refinement and standardization. For different public health programs, apportioning outlays by providers was not straight forward. Discussions with health experts working, including the Bangladesh National Health Accounts cell of the Health Economics Unit, MOHFW, was solicited to distribute outlays by providers and financing agents. Some level of over/under reporting cannot be ruled out. The dearth of patient data, specifically those availing treatment from private hospitals and outpatient center (physician chamber) was a challenge, and approximation from public sector utilization data were used as proxy.

2.9 Steps to address the limitations for future exercises

Steps used in identifying Reproductive (R), Maternal and Newborn (MN) and Child health (CH) related expenditures was based on disease or reason for encounter suggested under System of Health Accounts (SHA) developed by the Organization for Economic Co-operation and Development (OECD) and the World Health Organization (WHO) guidelines. However, due to resource and data limitations, the Reproductive (R), Maternal and Newborn (MN) and Child health (CH) analysis were marginally compromised on selected areas, and should be addressed in similar future analysis. The issues that need to be rectified are presented below.

1. Inpatient and Outpatient records used for identifying disease or reason for encounter was collected in 2006/07 (Inpatient Admissions Records Survey (IARS) 2006-07 and Public Hospital Outpatient Morbidity Survey (PHOMS) 2007), and used in redistributing expenditure of 2012. These surveys should be repeated to capture data that are more recent.
2. Survey data of patient records used was not designed specifically to address Reproductive (R), Maternal and Newborn (MN) and Child health (CH) issues. It was designed with emphasis to capture adequate sample of mothers and infants, and not encompassing Reproductive health (R) or Child Health (CH). For future analysis, sampling issue needs to be considered in advance. This would mean that the BNHA cell should work with the designer of the IARS and PHOMS to include the details needed.
3. Distribution of disease or reason for encounter using ICD-10[2], and ICPC-2[3] shows that sample of patients related to Reproductive (R), Maternal and Newborn (MN) and Child health (CH) by type of facility was not adequate. In the future, if necessary to over sample patient records for facilities specialized in providing these services can be pursued, and necessary statistical adjustments would yield estimates that are more robust.
4. Patient data from private hospitals was not available for the Reproductive (R), Maternal and Newborn (MN) and Child health (CH) analysis. According to the Bangladesh National Health Accounts (BNHA), private sector growth in healthcare services is much higher compared to the public sector. Growth in number of patient treated by the private sector hospital facilities are increasing at a faster rate than that of public facilities. In addition, the private sector facilities are offering more diversified and specialized services at the tertiary level hospital. Considering these factors, it is strongly recommended that patient records from private hospital facilities are included in future RMNCH studies. This would mean expanding the POHMS to private hospitals. Getting data from private facilities, not just hospitals, is a priority

The Reproductive (R), Maternal and Newborn (MN) and Child health (CH) analysis requires coding of diseases or reason for encounter using ICD-10 and ICPC-2 which was not done for this report. The coding exercise was completed under the third round of BNHA. This type of coding requires specialized knowledge and substantial amount of time and resource. For future analysis, it is important to consider additional level of effort and budget for coding of diseases or reason for encounter using ICD-10 and ICPC-2.

[2] International Classification for Disease (version 10)
[3] International Classification of Primary Care (version 2)

3. FINDINGS

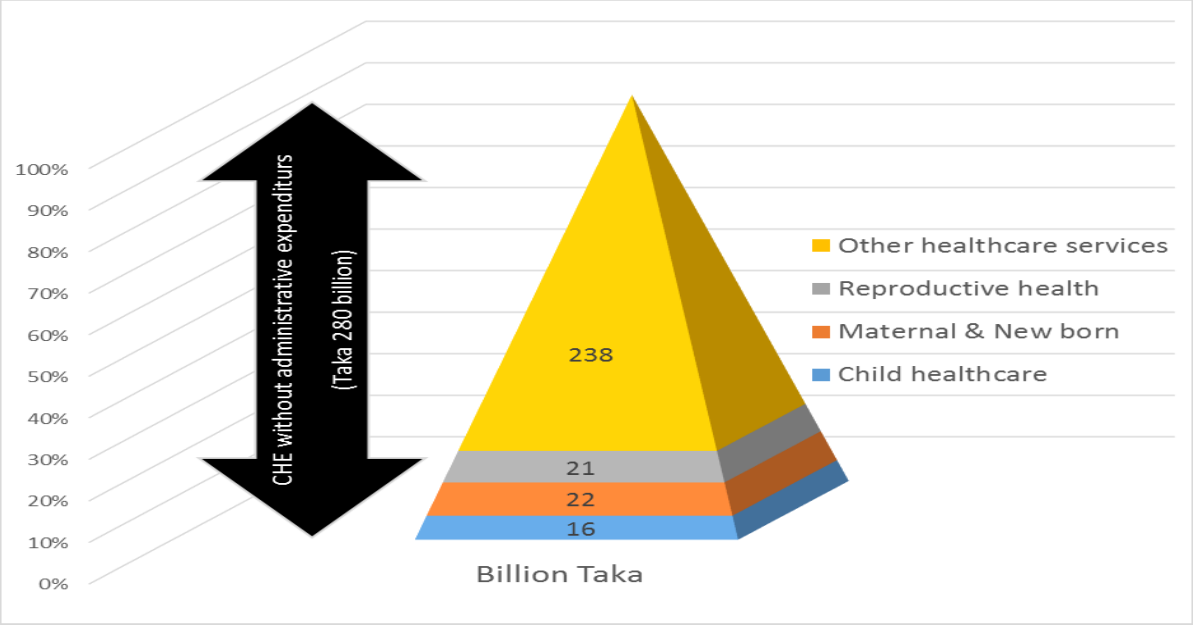
Bangladesh spends around Taka 59.3 billion on Reproductive, Maternal and Newborn, and Child Health (RMNCH) which is around 20% of total Current Health Expenditure (Chart 4) for the year 2012 Expenditure on Reproductive health for the year is estimated Taka 21.1 billion while it is Taka 22 billion for Maternal and New born, followed by Taka 16 billion on Child health. Expenditures estimated as RMNCH are directly associated with patients and all indirect expenditure such as administrative expenditure are therefore not included in the estimates.

Table 3: Summary of RMNCH Expenditures by Financing Schemes 2012

	Government schemes	Non-profit institution/ NGO financing schemes	Household Out-of-pocket expenditure	Rest of the World Voluntary Schemes	Current Healthcare Expenditure (CHE)
	Million Taka				
Reproductive	13,066	1,577	1,279	5,157	21,079
Maternal & New born	10,968	2,337	4,514	4,357	22,176
Child health	4,067	306	11,645		16,018
RMNCH	28,101	4,219	17,438	9,514	59,272
BNHA-CHE	64,244	7,509	197,968	27,144	296,866

The Government of Bangladesh is the biggest spender on RMNCH -- Taka 28.1 billion in 2012. The major portion of the funds was used on public health programs. Household making out-of-pocket (OOP) expenditure for procurement of medicine and paying hospital bills accounts for 29% of RMNCH. Household OOP expenditure on medicine for Reproductive health and Maternal and New born healthcare is very small (table 6 and table 9). NGOs contribution in RMNCH from its own funds is around Taka 4.2 billion with a large contribution of development partners funding (Taka 9.5 billion) in public health programs.

Chart 4: RMNCH Expenditures and Remaining Components of CHE, 2012



3.1 Reproductive Healthcare Expenditure

Bangladesh spent around Taka 21.1 billion on Reproductive health in 2012 (***Table 4***). This is around 7% of total current healthcare expenditure (CHE) for the year and almost 90% (Taka 19 billion) of this expenditure is made on Information, education and counseling programmes. In terms of providers, Ambulatory health care centers are the largest service providers of reproductive health, and in 2012 they spent Taka 12.2 billion. Much of the outlay is on family planning and counselling. The second largest providers of reproductive healthcare services are the general hospitals spending around Taka 7.6 billion. Reproductive services provided from the General hospitals is dominated by services of preventive care offering information, education on family planning and counselling service at the upazila (sub-district) level and below. Services of the curative care such as inpatient and outpatient care are also provided by the General hospitals. In 2012 Taka 1.4 billion on inpatient care and Taka 0.54 billion was incurred on outpatient care by the General hospitals.

Table 4: Reproductive Healthcare Expenditure by Providers and Functions, 2012

Providers	Inpatient curative care	Outpatient curative care	Pharmaceuticals and other medical non-durable goods	Information education and counseling programs	Current Healthcare Expenditure
	Million Taka				
General hospitals including teaching hospitals	1,397	540	-	5,660	7,598
Specialized hospitals	2	2	-	474	478
Ambulatory health care centers	-	-	-	12,156	12,156
Pharmacies/Retail Drug Outlet	-	-	77	-	77
GoB MoHFW public health programs	-	-	-	121	121
GoB non-MoHFW public health programs	-	-	-	23	23
NGO public health programs	-	-	-	530	530

Providers	Inpatient curative care	Outpatient curative care	Pharmaceuticals and other medical non-durable goods	Information education and counseling programs	Current Healthcare Expenditure
All other industries as secondary providers of health care	-	-	-	96	96
Reproductive health	1,411	548	77	19,060	21,097

The government, households, NGOs and development partners contributes in financing of Reproductive healthcare services in Bangladesh. In 2012, the government was the largest financing schemes entity, who spent around Taka 13.1 billion on reproductive healthcare (***Table 5***). The major portion of the government spending was made by the Ambulatory health care centers, accounts for almost 93% (Taka 12.2 billion) of total government expenditure. Development partners spending on reproductive healthcare, classified as "Rest of the World Voluntary Schemes," is the second largest financing schemes, and accounts for around 25% of reproductive healthcare expenditure of Bangladesh, . Households out of pocket spending on reproductive healthcare are not significant compared to the total spending. In 2012, households spend only Taka 1.3 billion on reproductive healthcare.

Table 5: Reproductive healthcare expenditure by Providers and Financing Schemes 2012

Providers	Government schemes	Non-profit institution/ NGO financing schemes	Household Out-of-pocket expenditure	Rest of the World Voluntary Schemes	Current Healthcare Expenditure
	Million Taka				
General hospitals including teaching hospitals	636	1,361	1,202	4,399	7,598
Specialized hospitals	31	47	-	400	478
Ambulatory health care centers[4]	12,156	-	-	-	12,156
Pharmacies/Retail Drug Outlet	-	-	77	-	77
GoB MoHFW public health programs	121	-	-	-	121
GoB non-MoHFW public health programs	23	-	-	-	23
NGO public health programs	3	169	-	358	530
All other industries as secondary providers of health care	96	-	-	-	96
Reproductive health	13,066	1,577	1,279	5,157	21,079

The major portion of Reproductive healthcare services in Bangladesh is spent on preventive care. In 2012 Taka 19.1 billion (90%) was spent on preventive care service. Spending on curative care services related to Reproductive health is very small. In 2012, Taka 1.4 billion was incurred on inpatient curative care and Taka 0.54 billion on outpatient care (Table 6).

[4] This item comprises establishments that are primarily engaged in providing health care services directly to outpatients who do not require inpatient services. This includes both offices of general medical practitioners and medical specialists and establishments specializing in the treatment of day-cases and in the delivery of home care services

Table 6: Reproductive healthcare expenditure by Functions and Financing Schemes 2012

Function	Government schemes	Non-profit institution/ NGO financing schemes	Out-of-pocket expenditure excluding cost-sharing	Rest of the World Voluntary Schemes	Current Healthcare Expenditure
	Million Taka				
Inpatient curative care	355	224	820	-	1,399
Outpatient curative care	105	94	344	-	543
Pharmaceuticals and other medical non-durable goods	-	-	77	-	77
Preventive care	12,606	1,259	38	5,157	19,060
Total Reproductive health	13,066	1,577	1,279	5,157	21,079

3.2 Maternal and Newborn (MN) Healthcare Expenditure

Healthcare expenditure on Maternal and Newborn (MN) is estimated Taka 22.2 billion (Table 7)) in 2012 which is approximately 7.5% of total Current Healthcare Expenditure (CHE). Hospitals, Ambulatory service providers and Public health programs implemented by the government and NGOs are major providers of MN care. A comparison of providers shows that General hospital alone accounts for almost 69% of total MN care services. In 2012, Taka 15.3 billion is spend by General hospitals on MN, where Taka 6.2 billion (40%) is spend on inpatient curative care and Taka 9 billion (60%) on preventive care creating awareness and educating mothers.

The Ministry of Health and Family Welfare's public health program is the second largest provider of MN service. In 2012 the ministry spent Taka 3.3 billion on information, education and counseling programs, with much of the outlay was on family planning and counselling. Ambulatory health care centers like community clinics or other outpatient center also contributes in MN. In 2012, a total of Taka 1.3 billion was spent by such entities.

Table 7: Maternal and Newborn healthcare expenditure by Providers and Functions 2012

Providers	Inpatient curative care	Outpatient curative care	Pharmaceuticals and other medical non-durable goods	Information, education and counseling programs	Current Healthcare Expenditure
	Million Taka				
General hospitals including teaching hospitals	6,195	12	-	9,029	15,236
Specialized hospitals	45	0	-	871	916
Ambulatory health care centers	-	-	-	1,318	1,318
Pharmacies/Retail Drug Outlet	-	-	748	-	748
GoB MoHFW public health programs	-	-	-	3,280	3,280
GoB non-MoHFW public health programs	-	-	-	12	12

Providers	Inpatient curative care	Outpatient curative care	Pharmaceuticals and other medical non-durable goods	Information, education and counseling programs	Current Healthcare Expenditure
	Million Taka				
NGO public health programs	-	-	-	333	333
All other industries as secondary providers of health care	-	-	-	333	333
Total Maternal and Newborn healthcare	6,239	12	748	15,176	22,176

The government financing schemes is the largest financer of MN healthcare services in Bangladesh. In 2012, the government spent around Taka 11 billion (***Table 8***) on MN healthcare. As mentioned earlier, general hospitals plays a significant role in providing MN. Further disaggregation of this provider by financing schemes shows that only 39% of general hospital funding is made by the government. In 2012 household out-of-pocket expenditure and Rest of the World funds given to NGOs are the two second biggest financer of RM, as they spent Taka 3.8 billion and Taka 3.6 billion respectively. Apart from financing hospital expenditure, households also make out-of-pocket expenditure on medicine. NGOs from its own fund finance in hospital service, and in 2012 total contribution of NGOs in MN was Taka 2.3 billion.

Table 8: Maternal and Newborn Healthcare Expenditure by Providers and Financing Schemes, 2012

Providers	Government schemes	Non-profit institution/ NGO financing schemes	Household Out-of-pocket expenditure	Rest of the World Voluntary Schemes	Current Healthcare Expenditure
	Million Taka				
General hospitals including teaching hospitals	5,975	1,894	3,766	3,602	15,236
Specialized hospitals	50	172	-	694	916
Ambulatory health care centers	1,318	-	-	-	1,318
Pharmacies/Retail Drug Outlet	-	-	748	-	748
GoB MoHFW public health programs	3,280	-	-	-	3,280
GoB non-MoHFW public health programs	12	-	-	-	12
NGO public health programs	1	271	-	61	333
All other industries as secondary providers of health care	333	-	-	-	333
Total Maternal and Newborn healthcare	10,968	2,337	4,514	4,357	22,176

A breakdown of Maternal and Newborn healthcare by functions like inpatient and outpatient shows that in 2012, Taka 6.2 billion (Table 9)) was spent on inpatient care. Expenditure reported as outpatient care related to MN is very low due to couple of definitional reasons: (1) home visits made by Family Welfare Assistant (FWA) and Health Assistant (HA) is not classified as outpatient visit; (2) mothers visits to facilities with a child older than one month is classified under childcare. Apart from the definitional boundary, having no patient data from private hospitals also contributed in estimation of low outpatient expenditure for MN. According to NHA definition, pharmaceuticals and other medical non-durable goods provided to the patient by hospitals is not shown separately and as a result such expenditure reported for MN is only Taka 0.75 billion in 2012.

Table 9: Maternal and Newborn Healthcare expenditures by Functions and Financing Schemes, 2012

Function	Government schemes	Non-profit institution/ NGO financing schemes	Out-of-pocket expenditure excluding cost-sharing	Rest of the World Voluntary Schemes	Current Healthcare Expenditure
	Million Taka				
Inpatient curative care	1,495	1,017	3,727	-	6,239
Outpatient curative care	8	1	3	-	12
Pharmaceuticals and other medical non-durable goods	-	-	748	-	748
Information, education and counseling program	9,465	1,319	35	4,357	15,176
Total Maternal and Newborn healthcare	10,968	2,337	4,514	4,357	22,176

3.3 Child Health Expenditure

Bangladesh spend around Taka 16 billion (***Table 10***) on Child healthcare (CH) in 2012. Healthcare service related child are provided from hospitals, ambulatory healthcare centers and Pharmacies/Retail drug outlet. In 2012 highest amount of CH related expenditure is reported by the provider of Pharmacies/ Retail drug outlet (Taka 10.5 billion). For the same year, expenditure reported by hospital and ambulatory centers are Taka 2.3 billion and Taka 2.7 billion respectively. Further breakdown of hospital expenditure suggest that almost 97% of the CH expenditure reported by hospitals are made on inpatient and outpatient curative care. In 2012, expenditures reported by Ambulatory centers are primarily on information, education and counseling programs, inclusive of immunization services.

Table 10: Child healthcare expenditure by Providers and Functions 2012

Providers	Inpatient curative care	Outpatient curative care	Pharmaceuticals and other medical non-durable goods	Information education and counseling programs	Immunization programs	Current Healthcare Expenditure
	Million Taka					
General hospitals including teaching hospitals	1,357	814	-	62	-	2,233
Specialized hospitals	20	30	-	4	-	55
Ambulatory health care centers	-	-	-	2,647	43	2,690
Pharmacies/Retail Drug Outlet	-	-	10,525	-	-	10,525
GoB MoHFW public health programs	-	-	-	501	-	501
GoB non-MoHFW public health programs	-	-	-	12	-	12
NGO public health programs	-	-	-	1	-	1
All other industries as secondary providers of health care	-	-	-	2	-	2
Total Child Healthcare	1,377	844	10,525	3,228	43	16,018

For child healthcare, the household is the largest financing schemes entity, spending Taka 11.6 billion in 2012 (Table 11). A major portion of the household spending is made at the Pharmacies/Retail Drug Outlets. Household expenditure on medicine and medical goods was Taka 10.5 billion and Taka 1.1 billion on hospital services. Government financing schemes accounted for only 25% (Taka 4.1 billion) of CH in 2012. The bulk of government spending are made by the ambulatory health care centers (Taka 2.7 billion) followed by General hospital (Taka 0.81 billion) and GoB MoHFW public health programs (Taka 0.5 billion).

Table 11: Child healthcare expenditure by Providers and Financing Schemes 2012

Providers	Government schemes	Non-profit institution/ NGO financing schemes	Household Out-of-pocket expenditure	Current Healthcare Expenditure
	Million Taka			
General hospitals including teaching hospitals	807	306	1,120	2,233
Specialized hospitals	55	-	-	55
Ambulatory health care centers	2,690	-	-	2,690
Pharmacies/Retail Drug Outlet	-	-	10,525	10,525
GoB MoHFW public health programs	501	-	-	501
GoB non-MoHFW public health programs	12	-	-	12
NGO public health programs	1	-	-	1
All other industries as secondary providers of health care	2	-	-	2
Total Child healthcare	4,067	306	11,645	16,018

Child healthcare expenditure by functions shows that major portion of the expenditure is made for the function of medicine and other medical non-durable goods. In 2012, Taka 10.5 billion (***Table 12***) was spend on medicine and other medical non-durable goods by households. Government public health program on CH accounts for Taka 3.2 billion followed by inpatient and outpatient. In 2012, Taka 0.5 billion and Taka 0.3 billion was spent on inpatient and outpatient respectively. Inpatient and outpatient service related to CH is also financed by households and NGO's own funding.

Table 12: Child Healthcare Expenditure by Functions and Financing Schemes, 2012

Function	Government schemes	Non-profit institution/ NGO financing schemes	Out-of-pocket expenditure excluding cost-sharing	Current Healthcare Expenditure
	Million Taka			
Inpatient curative care	540	179	658	1,377
Outpatient curative care	301	117	427	844
Pharmaceuticals and other medical non-durable goods	-	-	10,525	10,525
Information, education and counseling programs	3,183	10	35	3,228
Immunization programs	43	-	-	43
Total Child Healthcare	4,067	306	11,645	16,018

4. CONCLUSIONS

Current Health Expenditure (CHE) for 2012 on Reproductive (R) health is estimated at Taka 21.1 billion. In terms of percentage, this is around 7.1% of CHE. Reproductive healthcare services are primarily provided by ambulatory service providers (outpatient centers), 58% followed by general hospitals (36%). Health financing schemes offered by the Government of Bangladesh is the largest financer of Reproductive healthcare (62%). Reproductive healthcare financed by the development partner and implemented through NGOs also plays key role. It accounts for 24% of total R-CHE. A Functional breakdown of the Reproductive healthcare services shows that 92% of the expenditures are made on preventive care.

In 2012, Taka 22 billion was spent on Maternal and Newborn (MN) care in Bangladesh. It constitutes around 7.5% of total CHE. Further breakdown of MN-CHE by Financing Schemes shows that the government financing around 49% of total MN expenditure followed by Household and development partners financing at 20% each. As a provider of MN services, general hospitals are the largest provider accounting for almost 69% of total MN expenditure. MN services include inpatient and outpatient curative care, pharmaceuticals and other medical non-durable goods and preventive care. A Functional breakdown of the MN healthcare services shows that a major portion of the expenditure (68.4%) are made on preventive care followed by inpatient curative care (28%).

Expenditure on Child Healthcare (CH) for 2012 is estimated at around Taka 13.7 billion which translate to 5.4% of total CHE. Compared to the Financing Schemes of R and MN healthcare expenditure, household out-of-pocket (OOP) expenditure on CH is significantly higher. In 2012, household financing schemes financed almost 73% of CH-CHE. The main reason for shifting of financing responsibility from government to household on CH care is due the high level of outlay on pharmaceutical drugs. A Functional breakdown of the CH healthcare services shows that almost 66% of CH care expenditures are made for pharmaceuticals.

Improvements in Reproductive, Maternal and Newborn, and Child Health (RMNCH) care are a priority policy objective of the Government of Bangladesh. The government has made considerable investment in health targeting improvements of maternal and reproductive health as part of its commitment to achieve MDG 5 (Maternal health). Estimations on Reproductive, Maternal and Newborn and Child Health expenditures are policy relevant as the government can objectively assess the returns from such investments in terms of health performance indicators.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