

Out-of-Pocket Spending on Maternal and Child Health in Asia and the Pacific

Impact of Maternal and Child Health Private Expenditure on Poverty and Inequity in Bangladesh

Maternal and Child Health Expenditure in Bangladesh

TECHNICAL REPORT C



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Technical Report C



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PREFACE

This report was prepared by the Institute for Health Policy in Sri Lanka under an Asian Development Bank (ADB) technical assistance project, *Impact of Maternal and Child Health Private Expenditure on Poverty and Inequity (TA-6515 REG)*. The Institute for Health Policy and authors gratefully acknowledge the funding made possible by ADB that was financed principally by the Government of Australia.

Australia is taking a leading role in global and regional action to address maternal and child health. A key part of this is to strengthen the evidence for increased financial support and the most effective investments that governments and donors can make to meet Millennium Development Goals 4 and 5. Australia supported this technical assistance project as a part of this commitment.

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two-thirds of the world's poor: 1.7 billion people who live on less than \$2 a day, with 828 million struggling on less than \$1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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CURRENCY EQUIVALENTS

(as of 21 November 2012)

Currency Unit	–	taka (Tk)
Tk1.00	=	\$0.012
\$1.00	=	Tk79.85

ABBREVIATIONS

ATC	–	Anatomical Therapeutic Chemical
FES	–	Facility Efficiency Survey
FY	–	fiscal year
HIES	–	Household Income and Expenditure Survey
IARS	–	Inpatient Admissions Records Survey
ICD-10	–	International Classification of Disease, 10th revision
ICPC-2	–	International Classification of Primary Care, 2nd edition
MNCH	–	maternal, neonatal, and child health
MOHFW	–	Ministry of Health and Family Welfare
PES	–	Patient Exit Survey
PHOMS	–	Public Hospital Outpatient Morbidity Survey
PPS	–	Pharmacy Patient Survey

NOTE

The fiscal year (FY) of the government ends on 30 June. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2007 ends on 30 June 2007.

EXECUTIVE SUMMARY

This technical assistance project of the Asian Development Bank examined financial flows for maternal, neonatal, and child health (MNCH) services, as part of its efforts to understand the challenges in improving provision of and access to such services in Bangladesh. In a context where most healthcare financing is by private sources, considerable effort is needed to estimate overall MNCH spending. This study developed estimates by making use of multiple sources of data, some produced by the project itself, and others produced by the Government of Bangladesh. The Facility Efficiency Survey 2011 was used to generate estimates of the cost structure of government healthcare institutions. These estimates were then combined with data from two surveys of government inpatients and outpatients to estimate spending on patients by age, sex, and medical condition. The study also used the Patient Exit Survey 2011 study to generate a profile of out-of-pocket payments by mothers and children using Ministry of Health and Family Welfare (MOHFW) services. A pharmacy survey and IMS Health data were used to estimate the distribution of pharmacy sales to mothers and children. Finally, the Household Income and Expenditure Survey was used to estimate other private spending on MNCH services.

Total expenditure on MNCH patient services is estimated at Tk17.3 billion in fiscal year 2007. This represents 12% of recurrent expenditures on health in Bangladesh in that year, and is equivalent to Tk121 per capita. Of this expenditure, 60% was for treating children (i.e., under age 5 years), and only 28% was for childbirth care. In terms of financing, the government financed only 28% of this expenditure.

The major financier of MNCH patient services was household out-of-pocket spending, most of which was spent on purchasing medicines and other commodities from private pharmacies and stores. This level of spending is substantial, as more than two-thirds of this expenditure was financed by households directly through out-of-pocket payments. Even childbirth, where there is a strong case for public financing given its cost to individuals and the benefits of mothers seeking appropriate care early, is predominantly privately financed. The high reliance on out-of-pocket financing for MNCH care must be a major factor behind the inadequate use of MNCH services in Bangladesh, as well as the large inequality in use of services. Furthermore, government intervention has been inadequate in overcoming cost barriers to access, because MOHFW services usually incur a fee, often due to the need for most mothers and children to purchase their own medicines. As a consequence, MOHFW expenditures on MNCH care largely fail to benefit the poorest families.

The findings suggest the need for substantial increases in public financing of MNCH services. Such increases in spending might be prioritized initially on improving funding of childbirth care and in improving the availability of medicines at MOHFW facilities.

I. INTRODUCTION

Background

Bangladesh has made substantial progress since the 1970s in expanding the coverage of healthcare services to its population and in reducing fertility and child mortality. However, despite substantial gains in child and overall health, most mothers give birth outside of healthcare facilities, and many sick children do not receive appropriate medical care. For many health conditions, treatment by qualified providers, based in adequately equipped healthcare facilities using effective treatments, is critical to improving health outcomes and reducing mortality. Further improvements in maternal, neonatal, child health (MNCH) as well as overall health outcomes, require that Bangladesh increase access to services, which implies both additional financial investments and greater efficiency in the delivery and management of healthcare services.

In addressing the need for greater financing and provision of services, a critical aspect of the situation in Bangladesh is the extensive role of private financing and provision of services. Private financing, mostly household out-of-pocket spending, accounts for 67% of national health expenditures (Health Economics Unit 2010). Household out-of-pocket spending presumably also accounts for the largest share of financing of MNCH services. Most of this private spending finances the provision of care by private providers, with the bulk of spending going to private pharmacies and medicines retailers, and the rest going to a diverse range of medical providers, including traditional birth attendants, unqualified medical practitioners, physicians' clinics, and private hospitals.

Assessing and measuring the respective roles of private and public financing of MNCH care is a critical step in identifying and understanding the impact of out-of-pocket MNCH spending on households as well as the potential need for and role of public financing. Although Bangladesh has relatively good statistics on the public–private mix in financing and the public–private mix in provision of key MNCH services, from the Bangladesh national health accounts and the Bangladesh Demographic and Health Survey, detailed information on how MNCH care is financed is not available. This analysis attempts to fill this gap by measuring overall expenditure flows for MNCH care in Bangladesh and the relative contributions of public and private financing for different types of MNCH care. In addition to providing critical information on current spending on such services in Bangladesh, this analysis aims to provide Bangladesh policy makers, researchers, and development partners with baseline information to continue to track and analyze the financing of MNCH services and its impact on households.

Objectives

The objectives of this study are to estimate the levels of public and private spending on MNCH patient care services in Bangladesh and their distribution by types of service. The study focuses on spending on patient treatment, and thus excludes spending mostly by the government on community and public health programs, such as social marketing of population interventions and the sale of contraceptives. To do this, the study makes use of the Bangladesh Facility Efficiency Survey 2011, which was funded by this technical assistance project,¹ as well as other datasets produced by the Health Economics Unit, Ministry of Health and Family Welfare (MOHFW), and Bangladesh Bureau of Statistics.

¹ Asian Development Bank. 2008. Technical Assistance for Impact of Maternal and Child Health Private Expenditure on Poverty and Inequity. Manila.

II. METHODS AND RESULTS

Overview

MNCH care is obtained in Bangladesh from three major types of providers: (i) government, principally MOHFW, healthcare facilities; (ii) private practitioners and institutions, including nongovernment organization providers and traditional birth attendants; and (iii) pharmacies and medicines retailers, which sell medicines to households. The government almost exclusively finances the first category of providers, and household out-of-pocket spending almost entirely the last two categories, since third-party and insurance financing in Bangladesh is minimal. The best estimates of overall spending by both public and private sources of financing at these types of provider are available from the Bangladesh National Health Accounts (Health Economics Unit 2010), and these are summarized in Table 1.

Hospitals, ambulatory providers, and pharmacies primarily provide individual medical care. The scope of this study is on these, and the study excludes expenditures on general administration and public health programs related to MNCH care, which are mostly financed by government and external donors. The expenditures analyzed in this study are indicated in Table 1 by the shaded cells. These are equivalent to 91% of overall current health spending in Bangladesh in fiscal year (FY) 2007, or Tk135 billion.

Table 1: Current Healthcare Expenditures by Major Financing Source and Type of Provider, FY2007 (Tk billion)

Provider	MOHFW	Other Public	Households	Other Private	Rest of the World	Total
General administration	0.6	0.0	0.0	0.1	0.0	0.7
Hospitals	17.1	0.4	13.7	1.1	6.0	38.3
Ambulatory providers	11.6	0.0	17.9	0.9	4.5	34.9
Pharmacies and other medicine retailers	0.0	0.0	65.5	0.6	0.0	66.1
Other medical goods suppliers	0.0	0.0	3.0	0.0	0.0	3.0
Public health programs	1.8	0.0	0.0	0.4	1.8	4.0
Other providers	0.8	0.0	0.0	0.7	0.0	1.5
Total	31.9	0.4	100.1	3.7	12.4	148.5

MOHFW = Ministry of Health and Family Welfare

Notes: This table gives only current expenditures, excluding capital expenditures. The rest of the world refers to external donor financing, which is not channeled through the Government of Bangladesh budget. Shaded cells indicate the expenditures analyzed in this study.

Source: Health Economics Unit (2010).

To estimate the MNCH share of these expenditures, it is necessary to use combinations of different data sources and methods to analyze each component of spending. These data sources consisted of

- (i) **Facility Efficiency Survey 2011.** The Facility Efficiency Survey (FES) 2011 was a nationally representative survey of costs and expenditures at MOHFW facilities, conducted as part of the technical assistance project. The survey permitted the estimation of key cost components at each type of facility.
- (ii) **Patient Exit Survey 2011.** The Patient Exit Survey (PES) 2011, a technical assistance-funded survey of 5,160 inpatients and outpatients at the same facilities surveyed in the FES 2011, collected data on out-of-pocket costs faced by patients using MOHFW facilities. The survey oversampled mothers and children to improve its estimation of MNCH costs. Its data were combined with other data to estimate overall household out-of-pocket spending for MNCH.

- (iii) **Inpatient Admissions Records Survey 2006–2007.** The Inpatient Admissions Record Survey (IARS) 2006–2007, a Health Economics Unit survey, collected data on the characteristics and treatment of a national sample of inpatients in a representative sample of MOHFW facilities. The survey was funded by GIZ and carried out by Data International. Its data were combined with the cost data from the FES 2011 to estimate the distribution of MOHFW spending by different types of inpatients, from which the expenditures on MNCH treatment were derived.
- (iv) **Public Hospital Outpatient Morbidity Survey 2007.** The Public Hospital Outpatient Morbidity Survey (PHOMS) 2007, a Health Economics Unit survey, collected data on the characteristics and treatment of a national sample of outpatients in a representative sample of MOHFW facilities. The survey was funded by GIZ and carried out by Data International. Its data were combined with the cost data from the FES 2011 to estimate the distribution of MOHFW spending by different types of outpatients, from which the expenditures on MNCH treatment were derived.
- (v) **Pharmacy Patient Survey 2008.** The Pharmacy Patient Survey (PPS) 2008 is a national survey of pharmacy customers and sales, funded by GIZ on behalf of the Health Economics Unit, and conducted by IMS Health (Bangladesh). Its data were combined with aggregate estimates of pharmaceutical market sales produced by IMS Health to estimate the distribution of pharmacy expenditures by different types of patients.
- (vi) **Household Income and Expenditure Survey 2004/05.** The Household Income and Expenditure Survey (HIES) 2004/05 is a national household budget survey conducted by Bangladesh Bureau of Statistics. It was used to generate estimates of household out-of-pocket spending for MNCH care across all providers.

The results of these analyses were then integrated to produce an overall estimate of MNCH expenditures and their distribution in Bangladesh. The following sections describe in more detail the methods used.

Government Expenditures at Ministry of Health and Family Welfare Healthcare Institutions

The FES 2011 provided data on MOHFW operational expenditures² during 2009–2010 at a representative sample of 135 MOHFW healthcare institutions, and the distribution of costs in these facilities across key in-facility cost centers and between inpatients and outpatients. The cost centers that could be disaggregated consisted of inpatient wards; outpatient clinics; and laboratory, pharmacy, and radiology departments. The costs of the laboratory, pharmacy and radiology departments were disaggregated further into inpatient and outpatient treatment costs (Technical Report A).

The inpatient costs estimated by the survey were apportioned by disease, age, and sex across the inpatient population using the IARS 2006–2007. This was a Health Economics Unit-commissioned sample survey of inpatient records at a representative sample of 126 MOHFW healthcare institutions (Data International Limited 2010a). It extracted information on the primary diagnoses (up to three), age, sex, and discharge status of 9,819 inpatients discharged during 2006–2007, as well as details of the medicines prescribed, number of laboratory tests and radiology investigations carried out, and whether any surgical operation was conducted. The primary diagnoses were coded using the World Health Organization's International Classification of Disease, 10th Revision (ICD-10).

The outpatient costs estimated by the FES 2011 were apportioned by disease, age, and sex across the outpatient population using the PHOMS 2007. This was a Health Economics Unit-commissioned sample survey of 4,683 outpatients at a representative sample of 129 MOHFW healthcare institutions (Data International Limited 2010b). It extracted information on the reasons for the patient visit (up to three),

² Recurrent spending, excluding capital investment.

age, sex, and pregnancy status of 4,683 outpatients during 2007, as well as details of consultation duration, the medicines prescribed, and number of laboratory tests undertaken. The patient's reasons for the visit were originally coded using the World Health Organization-recommended International Classification of Primary Care, 2nd Edition (ICPC-2).

These codes were mapped to the associated ICD-10 codes, using mapping tables published by the Norwegian Centre for Informatics in Health and Social Care. This mapping gave equal weight to every ICD-10 code linked to an ICPC-2 code, which is imperfect, given that some conditions are more likely than others given Bangladesh's epidemiological situation. However, there is no Bangladesh-specific study examining the distribution of ICPC-2 codes in relation to ICD-10, so this was the most reasonable assumption.

Owing to the sampling design of the FES 2011, a large fraction of the FES 2011 facilities had also been surveyed by the IARS 2006–2007 (n = 85; 63%) and PHOMS 2007 (n = 86; 64%) surveys. For these facilities, the inpatient and outpatient expenditures of the key cost centers were apportioned over the sampled inpatients and outpatients, respectively, at each facility using the data contained in the two patient surveys to provide distribution keys. Pharmacy expenditures were distributed according to the purchasing cost of the medicines prescribed to each patient. Outpatient laboratory and radiology expenditures were distributed according to the number of laboratory or radiology investigations reported for each patient, having applied a cost weight to account for cost differences between different types of investigation (Table 2). Inpatient laboratory and radiology expenditures were distributed across the surveyed patients in the same way, except that no cost weighting was used, as the survey data did not identify the type of investigations done. The remaining inpatient costs were distributed across the sampled inpatients using bed-days accounted for by each patient, and adding 1 bed-day per patient for any surgical procedure reported. The remaining outpatient costs were distributed across the sampled outpatients using the duration in minutes of the relevant patient consultation. Facility overhead and administrative costs were distributed across the costs of all surveyed patients on a pro-rata basis.

Table 2: Cost Weights Used in Costing Outpatient Investigations

Investigations	Relative Cost Weight
Laboratory and other tests	
Laboratory tests	1.0
Biopsies	3.0
ECGs	1.0
Other tests	0.5
Radiology investigations	
X-rays	1.0
CT scans	25.0
MRI scans	40.0

For facilities that were surveyed by the IARS 2006–2007 and the PHOMS 2007 surveys, but were not surveyed by the FES 2011, expenditures at their cost centers were imputed. Imputation was done separately for each type of facility by using the mean ratio of expenditures to beds in the facilities of the same type. Having done this, IARS 2006–2007 and PHOMS 2007 patient data were used to distribute their costs to patients.

In the next stage, the unit costs per typical patient were computed by dividing the costs estimated for each surveyed patient by their patient-level sample weight, which was the ratio of the annual number of patients seen at a facility to the number of patients surveyed. This then yielded a distribution of facility costs by patient, according to age, sex, and diagnosis (ICD-10 code). If a patient had more than one diagnosis, the costs were distributed equally between the relevant ICD-10 codes. By applying facility-level sample weights, which was the ratio of the number of surveyed facilities of a particular type to the total number of those facilities of the same type, these costs were then generalized to all MOHFW facilities in Bangladesh. Finally, these estimates were then scaled to match the annual MOHFW budgetary expenditures at the relevant types of MOHFW facilities as estimated in the Bangladesh National Health Accounts for FY2007.

The final estimates are of the distribution of MOHFW facility-level recurrent expenditures by age, sex, and diagnosis of patient, as well as by major facility type. Combined with data on the numbers of patients, this yields estimates of the unit costs of different types of patient in 2009–2010 (Table 3).

Table 3: Comparison of Unit Costs of Maternal, Neonatal, and Child Healthcare and All Services at Major Ministry of Health and Family Welfare Facility Types, FY2010 (Tk)

Facility Type	Union Subcenters	Maternal and Child Welfare Centers	Upazila Health Complexes	District and General Hospitals	Medical College Hospitals	All Facilities
MNCH services						
Admission for normal childbirth ^a	–	576	1,263	1,108	2,273	1,277
Admission for caesarean section	–	1,756	1,672	2,881	6,329	2,175
Admission for assisted childbirth ^b	–	860	–	1,776	2,562	2,136
Antenatal care outpatient visit	–	60	75	89	237	87
Postnatal care outpatient visit	–	–	–	–	–	–
All services						
Inpatient admission	–	932	1,940	1,659	3,812	3,479
Outpatient visit	0	47	79	80	132	80

MNCH = maternal, neonatal, and child health

^a Single, spontaneous delivery (ICD-10 code O80).

^b Deliveries by forceps, vacuum extractor, and other assisted delivery, other than caesarean section, and multiple births (ICD-10 codes O81, O83–O84).

The overall aggregate estimates are summarized in Figure 1, which presents the distribution of expenditures by age group for each sex; in Figure 2, which presents the estimated MOHFW expenditures by major diagnostic category; and in Figure 3, which presents the levels of spending per capita by age and major diagnostic category.

Spending on MNCH was then easily obtained from these estimates by separating out expenditures using the variables for age, sex, and disease. Maternal expenditures were defined as all expenditures on female patients admitted or consulting for childbirth, maternal hemorrhage, abortions, antenatal care, postnatal care, and other maternal conditions, as identified by the respective ICD-10 codes (Table 4). Neonatal expenditures were defined as all expenditures on patients aged less than 1 month, infant expenditures on those aged less than 1 year, and child expenditures on those aged less than 5 years. Note that the latter two categories overlap with the neonatal category. The final estimates by type of MOHFW facility and major MNCH expenditure category are given in Table 5.

Figure 1: Government Recurrent Expenditures by Age and Sex, Ministry of Health and Family Welfare Facilities, FY2007 (Tk million)

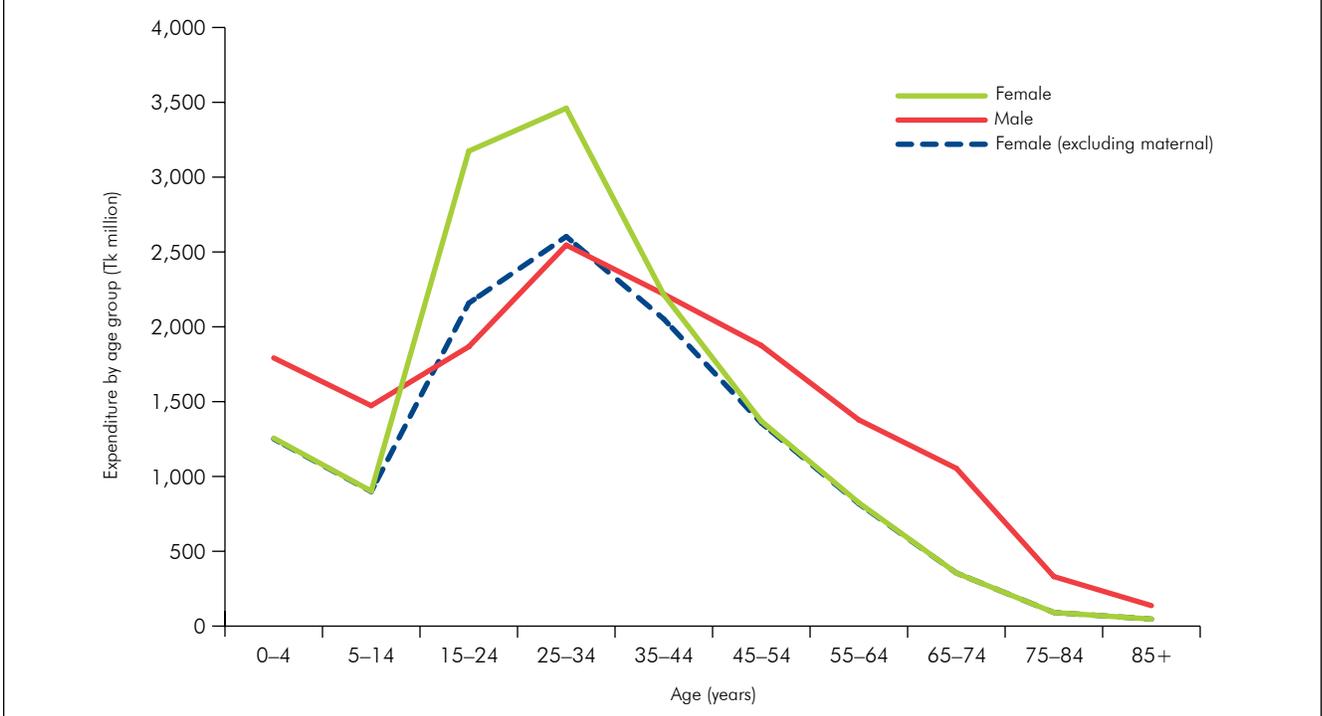


Figure 2: Government Recurrent Expenditures by Major Diagnostic Categories, Ministry of Health and Family Welfare Facilities, FY2007 (Tk million)

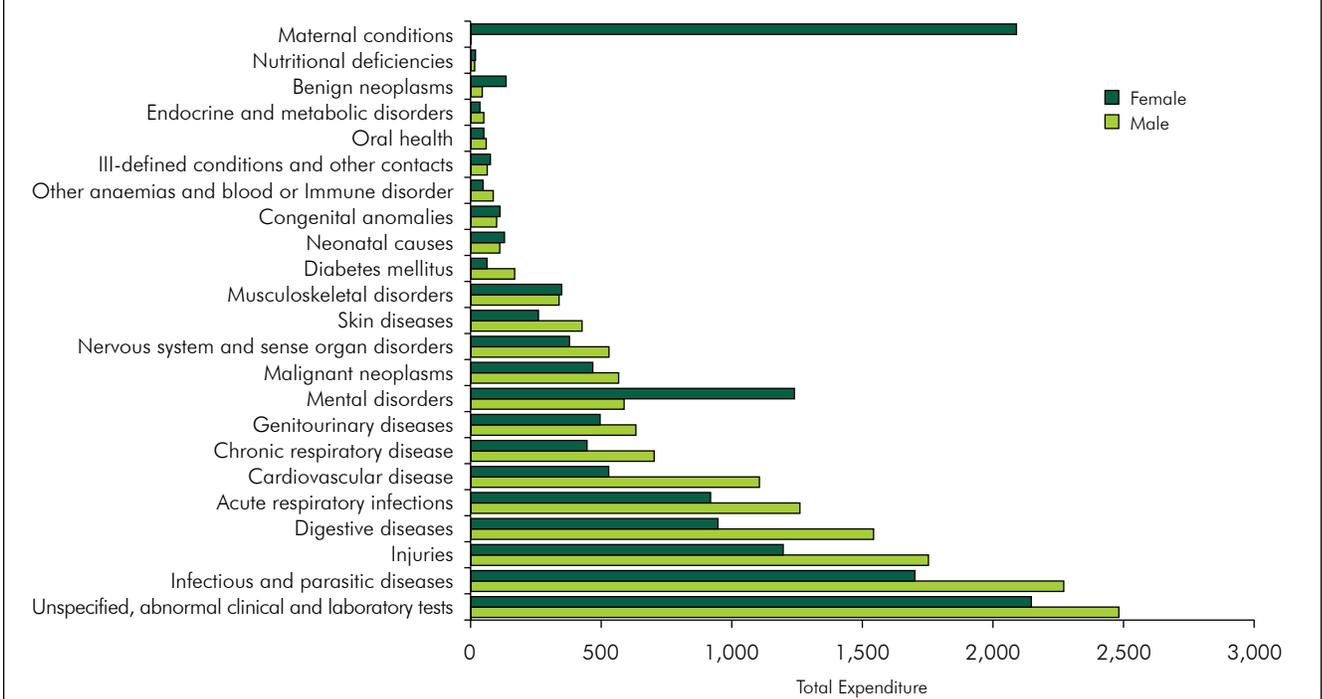


Figure 3: Government Recurrent Expenditures per Capita by Age Group and Diagnostic Categories, Ministry of Health and Family Welfare Facilities, FY2007 (Tk)

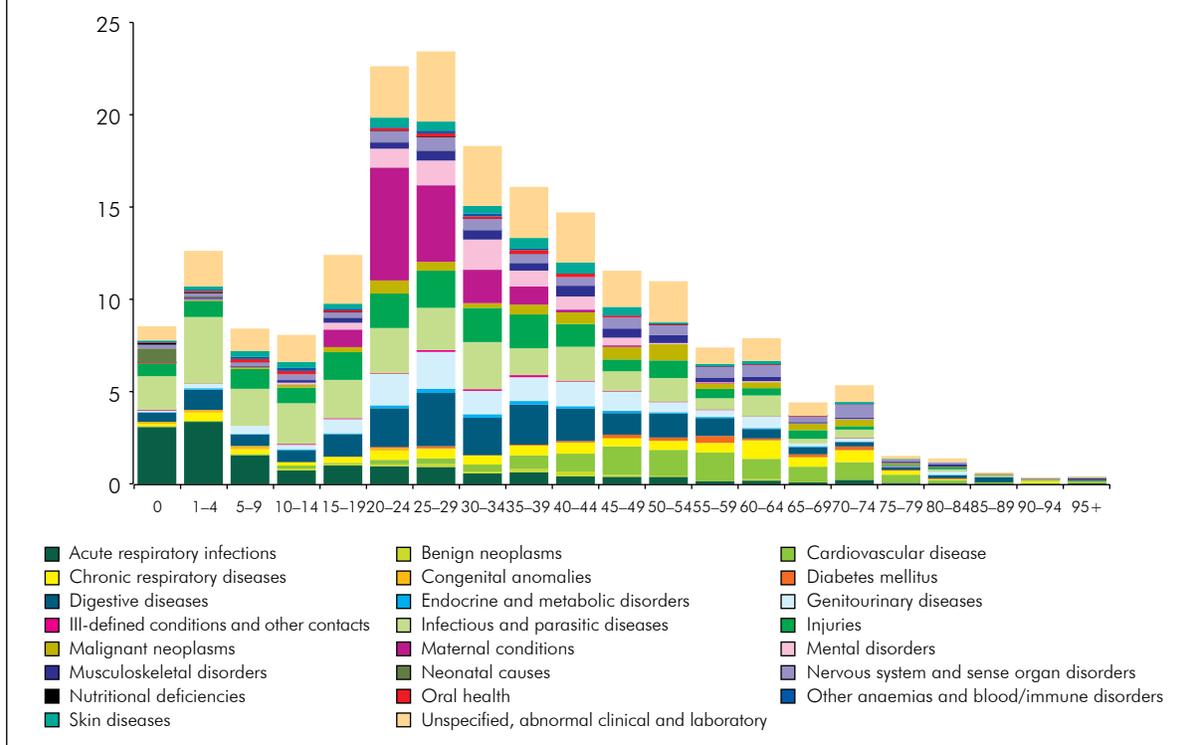


Table 4: International Classification of Disease Categories Used to Identify Expenditures for Maternal Care

Disease and Diagnostic Category	International Classification of Disease Code
Childbirth	O80-O84, Z37,Z38
Maternal hemorrhage	O44-O46, O72
Abortions	O00-O08
Antenatal care	Z32-Z36
Postnatal care	Z39
Other maternal conditions	O10-O16, O20-O29, O30-O43, O47, O48, O60-O71, O73-O75, O85-O92, O95-O99,O94

Table 5: Ministry of Health and Family Welfare Expenditures on Maternal, Neonatal, and Child Healthcare Services per Capita by Facility Type, FY2007 (Tk)

Facility Type	Maternal and Child Welfare Centers	Upazila Health Complexes	District and General Hospitals	Medical College Hospitals	Other	All facilities
Childbirth	0.1 (29.7)	2.6 (3.1)	2.1 (5.8)	0.8 (1.6)	0.1 (0.3)	5.7 (2.8)
Other maternal care	0.1 (21.1)	1.3 (1.5)	2.8 (7.8)	3.1 (6.3)	0.2 (0.5)	7.4 (3.7)
Neonatal care	0.0 (0.0)	0.6 (0.7)	0.9 (2.4)	0.3 (0.6)	0.0 (0.1)	1.8 (0.9)
Infant care	(0.0) (4.2)	4.5 (5.2)	2.0 (5.4)	0.9 (1.8)	0.4 (1.4)	7.7 (3.9)
Child care	0.0 (5.9)	4.9 (5.8)	1.6 (4.4)	0.7 (1.4)	0.5 (1.7)	7.7 (3.9)
All services	0.2 (100.0)	85 (100.0)	36.1 (100.0)	48.7 (100.0)	29.3 (100.0)	199.4 (100.0)

Notes: Figures in parentheses indicate share of total expenditures. Size of Bangladesh population in 2006–2007 sourced from World Bank. Total Population. <http://data.worldbank.org/indicator/SP.POP.TOTL>.

Targeting of Government Maternal, Neonatal, and Child Healthcare Treatment Expenditures

The PES 2011 survey collected data that permitted the assessment of the relative living standards of patients visiting MOHFW facilities. These data on household assets were used to estimate a wealth index, which then could be compared with asset ownership in the Demographic and Health Survey 2007. By doing so, the distribution of MOHFW treatment expenditures for MNCH care by household wealth quintiles in the population could be estimated, with the assumption that the distribution of assets did not change between 2007 and 2011. This assumption is, of course, not completely correct, and so the results generated, shown in Table 6, tend to underestimate the extent to which government expenditures benefit the poor.

Table 6: Distribution of Ministry of Health and Family Welfare Expenditures by Patient Category and Wealth Quintile, Patient Exit Survey 2011 Estimates (%)

Patient Category	Poorest	Q2	Q3	Q4	Richest	Concentration index
Outpatients						
Children (age less than 5 years)	4.1	6.4	20.4	34.2	34.9	0.36*
Children (age 5–14 years)	3.4	5.7	26.1	35.0	29.9	0.33*
Recent and current mothers	3.1	4.4	19.3	42.5	30.7	0.37*
Other patients	2.3	6.4	15.2	38.3	37.8	0.41*
Inpatients						
Children (age less than 5 years)	1.2	1.6	43.0	46.3	7.8	0.23*
Children (age 5–14 years)	0.4	6.9	16.8	38.6	37.3	0.42*
Recent and other mothers	1.4	4.7	11.9	39.8	42.2	0.47*
Other patients	1.4	4.4	57.3	18.5	18.4	0.19*

Q = quintile

Notes: Results are weighted to represent national means across all patients. Asterisks indicate statistical significance of concentration indexes: *p < 0.001.

As shown in these results, overall government health expenditures are pro-rich and benefit the nonpoor disproportionately. This has been previously shown using other methods (O'Donnell et al. 2007), but these results also demonstrate that the poor targeting of government health expenditures also applies to MNCH services, with less than one-tenth of MOHFW expenditures on childbirth care benefiting the poorest 40% of the population.

Out-of-Pocket and Other Private Costs Incurred at Pharmacies and Medicines Retailers

The bulk of out-of-pocket spending in Bangladesh is for medicines (65% in 2006–2007). Of overall spending at pharmacies and other retailers for medicines, 99% is financed by household out-of-pocket expenditures.

Two data sources provide information on expenditures at pharmacies and other medicines retailers: the HIES 2004–2005 and the PPS 2008. The HIES 2004–2005 is a nationally representative survey of household expenditures in Bangladesh on both medical and nonmedical goods and services, and included a module on healthcare utilization and spending. This survey was used to estimate the shares of household healthcare spending accounted for by different types of providers and by sex and different age groups, but it could not be used to identify the specific conditions for which households spend money. Although the HIES asked the causes of illness that precipitated use of medical services and spending, the categorization of these causes was neither comprehensive nor matched the actual distribution of reasons commonly given for seeking care. Consequently, the cause of illness question in the survey could not be used to accurately identify MNCH expenditures, with the partial exception of expenditure on childbirth.

Fortunately, the PPS 2008 was more useful. The PPS 2008 collected data via field observation on a self-weighting, nationally representative sample of 6,648 customer transactions at pharmacies during March–December 2008. The survey was commissioned by Data International in work for the Health Economics Unit and conducted by IMS Health (Bangladesh), using its proprietary national panel sample of pharmacies. The survey collected data on the age, sex, and reasons for purchasing medicines from customers, as well as details of the medicines sold (e.g., formulation and generic and brand names) and their prices.

The data in PPS 2008 on reasons for purchasing medicines or seeking care from a pharmacy were analyzed and coded using the reason for encounter classification of the ICPC-2. These were then mapped to ICD-10 codes using the mapping tables published by the Norwegian Centre for Informatics in Health and Social Care. The medicines sold were coded using the World Health Organization Anatomical Therapeutic Chemical (ATC) classification. This yields a distribution of all medicine sales by age, sex, and ICD-10 and ATC codes. The records were then reweighted using the data on the ATC classes of medicines sold to match the ATC distribution of national pharmacy sales as estimated by IMS Health for 2006.³ This step required some adjustment of ATC codes and manual recoding of individual observations to ensure appropriate matching with sales data. Matching was done for most records at the third level of the ATC classification, but higher levels in some cases if the sample sizes were small. The final estimates were then reweighted to match the Bangladesh National Health Accounts estimates of pharmacy sales in FY2007 (Tk66.1 billion). The final aggregate estimates are summarized in Figure 4, which presents the estimates of total sales of medicines per capita by age and major diagnostic category.

Spending on MNCH were then obtained from these estimates by separating out expenditures using the variables for age, sex, and disease, following the same procedures and definitions as described for analysis of MOHFW facility expenditures. The final estimates of MNCH expenditures at pharmacies and medicines retailers and by major MNCH category are given in Table 7.

³ The 2006 national sales estimates were the most recent set available to the research team. The IMS Health estimates are proprietary and only available with a paid subscription.

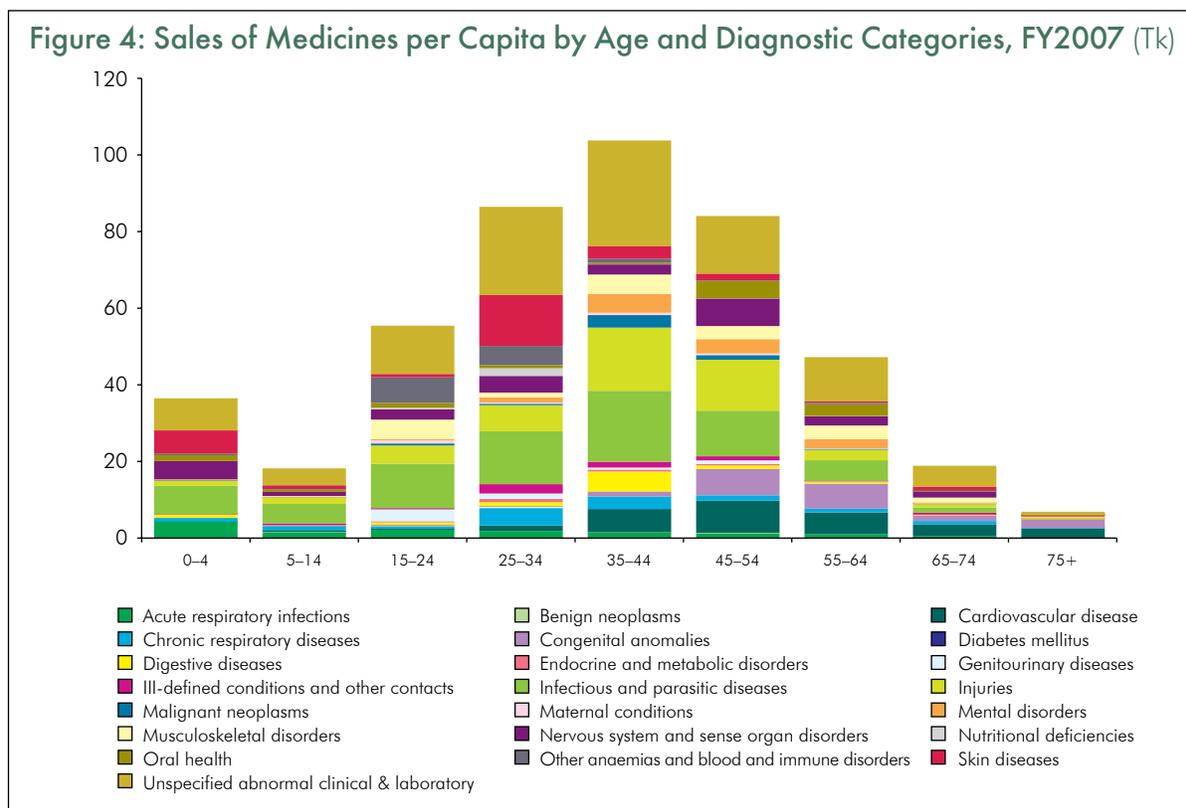


Table 7: Sales of Medicines by Maternal, Neonatal, and Child Health Categories, FY2007

Expenditure Category	Total (Tk million)	Per Capita Expenditure (Tk)	Percentage of Total Expenditures (%)
Childbirth	50	0.3	0.1
Other maternal care	300	2.1	0.4
Neonatal care	53	0.4	0.1
Infant care	895	6.2	1.4
Child care	3,829	26.6	5.8
All MNCH sales	5,073	35.2	7.7
All medicines sales	66,115	459.3	100.0

MNCH = maternal, neonatal, and child health

Note: Size of Bangladesh population in 2006–2007 sourced from World Bank. Total Population. <http://data.worldbank.org/indicator/SP.POP.TOTL>

Out-of-Pocket Costs Incurred in Obtaining Maternal, Neonatal, and Child Care at Ministry of Health and Family Welfare Facilities

National survey data, such as the HIES, indicate that patients at MOHFW facilities incur significant out-of-pocket costs, although most MOHFW services are nominally free or almost free (Anuranga et al. 2012). However, the specific levels and nature of these payments have not been reliably quantified. The HIES data suggest that most of these payments are for medicines but do not indicate the reasons that precipitate this spending, while other studies in Bangladesh have indicated that informal or unofficial payments to staff members at MOHFW institutions are also significant (Killingsworth et al. 1999).

To address this gap in the evidence, and to estimate levels of out-of-pocket spending associated with use of MNCH services at MOHFW facilities, the technical assistance project conducted a national exit survey of MOHFW patients (Technical Report B). The PES 2011 was designed as an extension to the FES 2011 survey, interviewing samples of inpatient and outpatients leaving the institutions on the days when the FES 2011 was being conducted. The survey used a structured questionnaire to collect data on the background characteristics of the patients, and detailed information on what payments they had made or expected to make in relation to their visit, as well as why and to whom. To improve coverage of MNCH out-of-pocket expenditures, mothers and children were oversampled, and represent one-half of the final sample of 2,080 inpatients and 3,080 outpatients. The survey was reviewed and approved by the Institute for Health Policy's Ethical Review Committee (ERC Approval No. 2011/001).

The survey findings indicate that most MNCH patients incur out-of-pocket costs on travel (Table 8) as well as official fees (Table 9). A significant percentage, but still a minority, of MNCH patients also report costs associated with payments to facility staff members, which are presumably unofficial or informal (Table 10). The major cost item, however, that is reported by over one-half of the outpatients and most inpatients, is the purchase of medicines, supplies, and equipment recommended by the medical staff members but not available at the facility (Table 11).

Table 8: Out-of-Pocket Costs of Official Fees Paid to Facilities Reported by Mothers, Children and Other Patients Using MOHFW Facilities, 2011

Patient category	Reporting Any Travel Costs (%)	Mean Cost if Reporting Any Travel Costs (Tk)	Mean Travel Costs per Patient (Tk)
Outpatients			
Children (age less than 5 years)	70.0	25.6	17.9
Children (age 5–14 years)	71.4	22.5	16.1
Pregnant mothers	77.5	28.4	22.0
Mothers recently delivered	92.4	45.6	42.2
Other patients	74.3	27.5	20.6
All patients	74.4	27.1	20.2
Inpatients			
Children (age less than 5 years)	95.2	109.4	104.2
Children (age 5–14 years)	87.4	75.4	65.8
Pregnant mothers	96.5	69.3	66.9
Mothers recently delivered	96.5	219.7	212.1
Other patients	94.8	131.9	125.1
All patients	94.5	131.4	124.2

Note: Results are weighted to represent national means across all patients.

Table 9: Out-of-Pocket Costs of Official Fees Paid to Facilities Reported by Mothers, Children, and Other Patients Using Ministry of Health and Family Welfare Facilities, 2011

Patient category	Reporting Fee Expenses (%)	Mean Cost if Reporting Official Fees (Tk)	Average Official Fees per Patient (Tk)
Outpatients			
Children (age less than 5 years)	46.4	5.2	2.4
Children (age 5–14 years)	41.9	6.8	2.8
Pregnant mothers	42.4	5.9	2.5
Mothers recently delivered	80.0	7.5	6.0
Other patients	50.2	6.2	3.1
All patients	47.8	6.1	2.9
Inpatients			
Children (age less than 5 years)	67.7	50.0	33.9
Children (age 5–14 years)	73.9	137.5	101.6
Pregnant mothers	59.6	120.4	71.8
Mothers recently delivered	62.9	506.7	319.0
Other patients	75.6	298.6	225.9
All patients	73.2	270.2	197.8

Notes: Results are weighted to represent national means across all patients. Official fees for outpatients consist of registration fees, and for inpatients, admission fees, surgical fees, and bed fees.

Table 10: Out-of-Pocket Costs of Informal Payments Reported by Mothers, Children, and Other Patients Using Ministry of Health and Family Welfare Facilities, 2011

Patient category	Reporting Payments (%)	Mean Cost if Reporting Payments (Tk)	Average Payments per Patient (Tk)
Outpatients			
Children (age less than 5 years)	0.1	60.0	0.1
Children (age 5–14 years)	0.3	145.9	0.4
Pregnant mothers	1.2	176.8	2.7
Mothers recently delivered	0.0	0.0	0.0
Other patients	0.4	86.1	0.3
All patients	0.4	127.0	0.6
Inpatients			
Children (age less than 5 years)	7.1	253.8	18.0
Children (age 5–14 years)	7.6	115.8	8.7
Pregnant mothers	1.3	121.0	1.6
Mothers recently delivered	32.9	293.7	96.8
Other patients	6.4	179.7	11.5
All patients	8.6	218.5	18.9

Note: Results are weighted to represent national means across all patients.

Table 11: Out-of-Pocket Costs of Medicines, Supplies, and Equipment Reported by Mothers, Children, and Other Patients Using Ministry of Health and Family Welfare Facilities, 2011

Patient category	Reporting Need to Purchase Medicines or Supplies (%)	Mean Cost of Recommended Medicines or Supplies (Tk)	Mean Cost of Medicines or Supplies per Patient (Tk)
Outpatients			
Children (age less than 5 years)	56.2	277.1	137.5
Children (age 5–14 years)	58.3	197.3	105.1
Pregnant women	41.0	354.1	121.9
Mothers recently delivered	61.4	343.0	198.3
Other patients	45.4	327.5	130.2
All patients	48.4	301.3	128.0
Inpatients			
Children (age less than 5 years)	93.4	659.9	587.3
Children (age 5–14 years)	94.7	526.4	469.8
Pregnant women	82.5	675.8	532.3
Mothers recently delivered	93.6	1,108.8	987.0
Other patients	92.5	1,077.9	926.4
All patients	92.7	979.9	848.3

Note: Results are weighted to represent national means across all patients.

On the basis of these results, it can be concluded that the average out-of-pocket travel and treatment costs incurred by pregnant women using MOHFW facilities in 2011 are on average Tk565 for outpatients and Tk2,129 for institutional deliveries, and for children, Tk368 for outpatients and Tk1,073 for inpatients.

Out-of-Pocket Costs Incurred in Obtaining Maternal, Neonatal, and Child Healthcare at Other Private Providers

The remaining costs associated with obtaining MNCH care in Bangladesh are incurred when mothers and children obtain care from private healthcare providers, who include formally qualified doctors, other less-qualified providers, private hospitals, laboratories, and shops. The only comprehensive data source that supports estimates of these expenditures is the HIES 2004/05⁴. However, given the limitations in the design of the HIES, it can only provide estimates of expenditures for children and for mothers who obtained maternity care. Analysis of the HIES 2004/05 yields the estimates of spending shown in Table 12.

⁴ The HIES 2009/10 is a more up-to-date survey, but it was not available at the time of analysis.

Table 12: Out-of-Pocket Treatment Costs Reported by Mothers, Children, and Other Patients Using Private Providers Other than Pharmacies, Household Income and Expenditure Survey 2004/05

Patient Category	Costs per Capita in Past 30 Days (Tk)	Costs as Percentage of Total Household Health Expenditures	Annualized Expenditure per Capita (Tk)
Children (aged less than 5 years)	1.9	7.7	23.1
Childbirth	2	8.3	24.8
All	24.6	100	299.3

Note: Treatment costs exclude travel costs.

Synthesis of Overall Estimates of Expenditures on Maternal, Neonatal, and Child Care

The separate analyses described above generated estimates of the different types of spending on MNCH care in Bangladesh in the late 2000s: (i) government expenditures at MOHFW facilities, (ii) out-of-pocket costs incurred by households in using MNCH services at MOHFW facilities, (iii) out-of-pocket and other private spending at pharmacies and shops on medicines for MNCH care, and (iv) household spending at other private providers.

These estimates were then combined and integrated using the National Health Accounts estimates of total health expenditures in Bangladesh to generate an overall profile of MNCH expenditures in FY2007, which is the latest year for which these estimates are available for Bangladesh. This involved scaling the expenditure components to match the aggregate amounts of spending in FY2007, and deflating the estimates of out-of-pocket costs incurred at MOHFW facilities in 2011 to FY2007, using private consumption as the deflator.

In doing so, two adjustments were made to account for two areas of inconsistency in the evidence:

- (i) The PES 2011 estimates of out-of-pocket spending on medicines for childbirth and other maternal care related to MOHFW consultations, deflated back to FY2007 (childbirth, Tk298 million; other maternal care, Tk706 million) are substantially greater than the estimates of total pharmacy sales generated from the analysis of pharmacy survey and IMS Health data (childbirth, Tk50 million; other maternal care, Tk300 million). The PES estimates may be overestimates because of errors introduced by the deflation procedure and reported purchase intentions by patients may overstate actual final purchases. However, the pharmacy survey estimates are subject to greater sampling errors owing to the small sample involved. To reconcile these estimates, the estimates generated by the PES 2011 were taken as given, and an additional amount equivalent to 50% of the PES 2011 estimates added as the estimate of pharmacy sales to customers who had not visited MOHFW facilities.
- (ii) The PES 2011 estimates of informal payments appear to be lower than the few other studies of the topic, e.g. Killingsworth et al. (1999), although this older study also found that the bulk of informal payments in government hospitals was also for medicines and commodities. To account for the possibility of patient underreporting in the PES 2011, the PES 2011 estimates were doubled.

Table 13 presents the final estimates. These exclude travel costs of patients in traveling to healthcare institutions for care, but include out-of-pocket expenditures on medicines after visits to MOHFW facilities as expenditures at pharmacies and shops.

Table 13: Final Estimates of Maternal, Neonatal, and Child Health Expenditures, FY2007 (Tk million)

Type of Care	Children (age less than 5 years)	Childbirth	Other Maternal	Total MNCH	Financing Share
MOHFW budget	2,627 (18.3)	1,129 (7.9)	1,114 (7.8)	4,870 (34.0)	28%
Official fees	21 (0.1)	59 (0.4)	14 (0.1)	94 (0.7)	1%
Informal fees	5 (0.0)	17 (0.1)	10 (0.1)	32 (0.2)	0%
Pharmacy sales to MOHFW patients	914 (6.4)	298 (2.1)	706 (4.9)	1,919 (13.4)	11%
Other pharmacy sales	3,863 (27.0)	149 (1.0)	353 (2.5)	4,365 (30.5)	25%
Other private providers	2,822 (19.7)	3,029 (21.2)	177 (1.2)	6,028 (42.1)	35%
All sources	10,252 (71.6)	4,681 (32.7)	2,375 (16.6)	17,308 (120.9)	100%

Notes: Figures in parentheses indicate per capita estimates. Size of Bangladesh population in 2006–2007 sourced from World Bank. Total Population. <http://data.worldbank.org/indicator/SP.POPT.TOTL>.

Total expenditure on MNCH patient services is estimated at Tk17.3 billion in 2006–2007. This represented 12% of recurrent expenditures on health in Bangladesh in that year, and was equivalent to Tk121 per capita. Of this expenditure, 59% is for treating children, and only 28% is for childbirth care (Figure 5). Within MOHFW expenditures, expenditure on childbirth care only accounts for 23%.

In terms of financing (Figure 6), the government financed only 28% of overall MNCH care expenditure, and an even lower share of financing of childbirth (24%) and of child treatment (26%). The major financier of MNCH patient services is household out-of-pocket spending, most of which is spent on buying medicines and other commodities from private pharmacies and shops. The low contribution by MOHFW to the overall financing of childbirth may explain the low level of skilled birth attendants in Bangladesh, as well as associated high maternal mortality.

Figure 5: Expenditure on Maternal, Neonatal, and Child Healthcare by Major Types of Care, FY2007

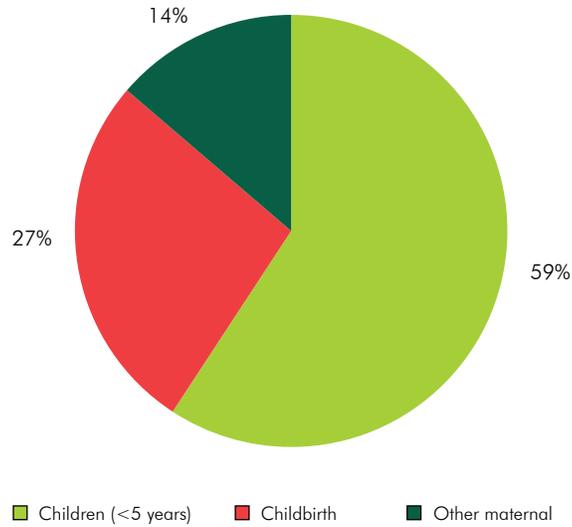
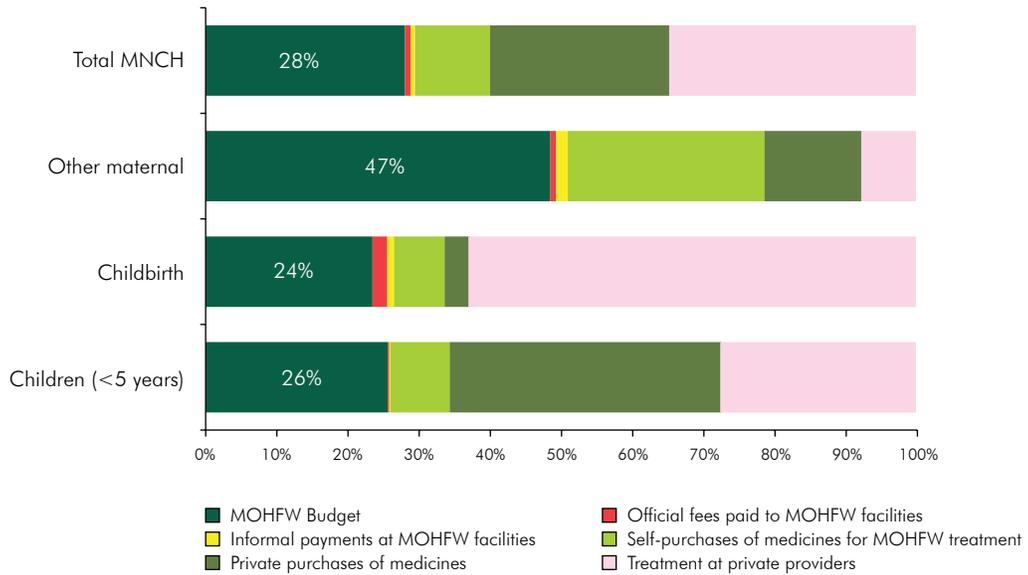


Figure 6: Sources of Financing of Maternal, Neonatal, and Child Healthcare and Its Key Components, FY2007



MNCH = maternal, neonatal, and child health; MOHFW = Ministry of Health and Family Welfare

III. DISCUSSION

The study estimates indicate that 12% of total healthcare expenditure in Bangladesh is used to fund MNCH patient services, the bulk of which goes to treating children. This finding is consistent with a much smaller, previous World Health Organization-financed study of child health expenditures (Institute for Health Policy and Data International 2006), which found that 11% of current expenditure on health was spent on children age less than 5 years.

This percentage may be considered substantial, as more than two-thirds of this expenditure is financed by households directly through out-of-pocket payments. Even childbirth, where there is a strong case for public financing given its cost to individuals and the benefits of mothers seeking appropriate care early, is predominantly privately financed.

The high reliance on out-of-pocket financing for MNCH care must be a major factor behind the inadequate use of MNCH services in Bangladesh, as well as the inequality in use of services. Furthermore, government intervention has been inadequate in overcoming cost barriers to access, because MOHFW services incur costs, owing in large part to the need for most mothers and children to purchase their own medicines. Furthermore, government expenditures disproportionately benefit the nonpoor, and very little reaches the poorest mothers and children.

Most mothers continue to make use of institutional care for childbirth, and overall levels of utilization of formal medical treatment in Bangladesh remains low. Improving provision and use of MNCH services will require substantial improvements in public financing. Such increases in spending might be prioritized initially on improving funding of childbirth care, and in improving the availability of medicines at MOHFW facilities.

REFERENCES

- Chandrasiri, J., et al. 2012. The Impact of Out-of-Pocket Expenditures on Poverty and Inequalities in Use of Maternal and Child Health Services in Bangladesh: Evidence from the Household Income and Expenditure Surveys 2000–2010 - RETA 6515 Country Brief. Manila: Asian Development Bank.
- Data International Limited. 2010a. Inpatient Admissions Records Survey (IARS) 2006–07. Dhaka: Health Economics Unit, Ministry of Health and Family Welfare.
- . 2010b. Public Hospital Outpatient Morbidity Survey (PHOMS) 2007. Dhaka: Health Economics Unit, Ministry of Health and Family Welfare.
- Health Economics Unit. 2010. Bangladesh National Health Accounts 1997–2007. Dhaka: Data International.
- Institute for Health Policy and Data International. 2006. Child Health Accounts: Results of a Pilot Study in Bangladesh and Sri Lanka. Colombo: IHP.
- Killingsworth, J., et al. 1999. Unofficial Fees in Bangladesh: Price, Equity and Institutional Issues. *Health Policy and Planning*. 14 (2). pp. 152–163.
- O'Donnell, O., et al. 2007. The Incidence of Public Spending on Healthcare: Comparative Evidence from Asia. *World Bank Economic Review*. 21 (1). pp. 93–123.
- WONCA International Classification Committee. 1998. *International Classification of Primary Care*. 2nd edition. Oxford: Oxford University Press.
- World Health Organization. 1993. *International Classification of Diseases*. 10th revision. Geneva.

For More Information

This AusAID financed ADB RETA 6515 project, with support from the Health Economics Unit of the MOHFW, conducted several studies on out-of-pocket expenditures on maternal, newborn, and child health (MNCH) in Bangladesh including an analysis of household OOP expenditures, public sector facility costs, an exit survey of OOP expenses, and overall MNCH expenditures.

Publications on these findings are available from:

ADB: www.adb.org/publications/

Health Economics Unit of the MOHFW: www.heu.gov.bd/

Other publications from this project on the impact of out-of-pocket expenditures on MNCH in Asia and the Pacific are available at www.adb.org/publications/

Impact of Maternal and Child Health Private Expenditure on Poverty and Inequity in Bangladesh

Maternal and Child Health Expenditures in Bangladesh: Technical Report C

The Government of Bangladesh has made it a priority to expand access to maternal, neonatal, and child health (MNCH) services. However, healthcare services in Bangladesh are predominantly financed through household out-of-pocket expenditures. This study used a number of different data sources and innovative methods to determine overall expenditures on MNCH treatment, and how they are financed.

Total expenditure on MNCH patient services is estimated at Taka 17.3 billion in fiscal year 2007, which represents 12% of total recurrent expenditures on health. Of this expenditure, 60% was for treating children under the age of 5 years, and only 28% was for childbirth care. In terms of financing, the government financed only 28% of this expenditure. More than two-thirds of MNCH expenditures in 2006-2007 was financed through household out-of-pocket spending, most of which was spent on purchasing medicines and other commodities from private pharmacies.

The findings suggest the need for substantial increases in public funding of MNCH services, with the prioritization of increased funding to childbirth care and improving the availability of medicines at MOHFW facilities.

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