

UNIVERSAL HEALTH COVERAGE STUDY SERIES No. 41



Bangladesh – Unravelling the ‘Good Health at Low Cost’ Story



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Bangladesh - Unravelling the ‘Good Health at Low Cost’ Story

Shakil Ahmed, Tahmina Begum, Daniel Cotlear

The World Bank, Washington, DC, 2019

ABBREVIATIONS AND ACRONYMS

ANC	Antenatal Care
BDHS	Bangladesh Demographic and Health Survey
BNHA	Bangladesh National Health Accounts
BRAC	Building Resources Across Communities
CARE	Cooperative for Assistance and Relief Everywhere
CBHC	Community-based Health Care
CC	Community Clinic
CCSD	Clinical Contraception Services Delivery
CDC	Communicable Diseases Control
CG	Community Group
CHCP	Community Health Care Provider
CHE	Current Health Expenditure
CHW	Community Health Worker
CI	Concentration Index
DGDA	Directorate General of Drug Administration
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
DHIS2	District Health Information System 2
DP	Development Partner
EPI	Expanded Program on Immunization
ESD	Essential Service Delivery
ESP	Essential Service Package
FP	Family Planning
FPFSD	Family Planning Field Service Delivery
FWA	Family Welfare Assistant
GDP	Gross Domestic Product
GGE	General Government Expenditure
GGHE	General Government Health Expenditure
GHED	Global Health Expenditure Database
GIZ	German Agency for International Cooperation
GOB	Government of Bangladesh
GOBI-FFF	Growth Monitoring, Oral Rehydration Therapy, Breast Feeding, Immunization, Female Education, Family Spacing, and Food Supplements
GOD	Government Outdoor Dispensary
HA	Health Assistant
HIES	Household Income and Expenditure Survey
HIS	Health Information Systems
HNP	Health, Nutrition, and Population

HNPSP	Health, Nutrition, and Population Sector Programme
HPNSDP	Health, Population, and Nutrition Sector Development Programme
HPNSP	Health, Population, and Nutrition Sector Programme
HPSP	Health and Population Sector Programme
HR	Human Resources
LIC	Low-income Country
MCRAH	Maternal, Child, Reproductive, and Adolescent Health
MDG	Millennium Development Goal
MMR	Maternal Mortality Ratio
MNCAH	Maternal, Neonatal, Child, and Adolescent Health
MOF	Ministry of Finance
MOLGRD&C	Ministry of Local Government, Rural Development, and Cooperatives
MOHFW	Ministry of Health and Family Welfare
NCD	Noncommunicable Disease
NGO	Nongovernmental Organization
NIPORT	National Institute of Population Research and Training
ODI	Overseas Development Institute
OOPE	Out-of-pocket Expenditure
OP	Operational Plan
ORT	Oral Rehydration Therapy
PA	Project Aid
PHC	Primary Health Care
PNC	Postnatal Care
PPP	Public-Private Partnerships
SDG	Sustainable Development Goal
SIAPS	Systems for Improved Access to Pharmaceuticals and Services
SS	Shasthya Shebika
SWAp	Sector-wide Approach
TB	Tuberculosis
THE	Total Health Expenditure
UHC	Universal Health Coverage
UHFWC	Union Health and Family Welfare Center
UNICO Studies Series	Universal Health Coverage Studies Series
USAID	United States Agency for International Development
UzHC	<i>Upazila</i> Health Complex
WDI	World Development Indicators
WHO	World Health Organization

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Preface to the second round of the Universal Health Coverage Study Series

All people aspire to receive quality, affordable health care. In recent years, this aspiration has spurred calls for universal health coverage (UHC) and has given birth to a global UHC movement. In 2005, this movement led the World Health Assembly to call on governments to “develop their health systems, so that all people have access to services and do not suffer financial hardship paying for them.” In December 2012, the movement prompted the United Nations General Assembly to call on governments to “urgently and significantly scale up efforts to accelerate the transition toward universal access to affordable and quality health care services.” Today, some 30 middle-income countries are implementing programs that aim to advance the transition to UHC, and many other low- and middle-income countries are considering launching similar programs.

The World Bank supports the efforts of countries to share prosperity by transitioning toward UHC with the objectives of improving health outcomes, reducing the financial risks associated with ill health, and increasing equity. The World Bank recognizes that there are many paths toward UHC and does not endorse a particular path or set of organizational or financial arrangements to reach it. Regardless of the path chosen, successful implementation requires that many instruments and institutions be in place. While different paths can be taken to expand coverage, all paths involve implementation challenges. With that in mind, the World Bank launched the Universal Health Coverage Studies Series (UNICO Studies Series) to develop knowledge and operational tools designed to help countries tackle these implementation challenges in ways that are fiscally sustainable and that enhance equity and efficiency. The UNICO Studies Series consists of technical papers and country case studies that analyze different issues related to the challenges of UHC policy implementation.

The case studies in the series are based on the use of a standardized protocol to analyze the nuts and bolts of programs that have expanded coverage from the bottom up—programs that have started with the poor and vulnerable rather than those initiated in a trickle-down fashion. The protocol consists of nine modules with over 300 questions that are designed to elicit a detailed understanding of how countries are implementing five sets of policies to accomplish the following: (a) manage the benefits package, (b) manage processes to include the poor and vulnerable, (c) nudge efficiency reforms to the provision of care, (d) address new challenges in primary care, and (e) tweak financing mechanisms to align the incentives of different stakeholders in the health sector. To date, the nuts and bolts protocol has been used for two purposes: to create a database comparing programs implemented in different countries, and to produce case studies of programs in 24 developing countries and one high-income ‘comparator’, the state of Massachusetts in the United States. The protocol and case studies are being published as part of the UNICO Studies Series.

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Executive Summary

Introduction

Bangladesh is often cited as an example of success demonstrating how a low-income country (LIC) can rapidly improve its health outcomes at very low cost. In the last five decades, its health outcomes have improved dramatically faster than in countries that started with a similar baseline, and it was one of the top 10 countries that met Millennium Development Goal (MDG) 4. This success in health outcomes was achieved by a country with very low expenditures in health care. In 2011, its success was highlighted by the Rockefeller Foundation and the London School of Tropical Hygiene as proof of the possibility of achieving ‘good health at low cost’. In 2013, the Lancet published a series of articles aiming to explain the paradox of a country with exceptional health achievements despite widespread poverty and weak health systems; it emphasized how Bangladesh, emerging after the war of independence with very weak health systems, witnessed the development of ‘successful pluralism’ in health care instead of a failing fragmented system. The Lancet Series explained the success by the extensive use of mostly female community health workers (CHWs) for family planning (FP), the support of innovative nongovernmental organizations (NGOs), and the constitutionally enshrined right to health. In 2017, the Government of Bangladesh (GOB) published its own assessment of the country’s success, highlighting the role played by the Government and its partnership with development partners (DPs), NGOs, and civil society in rapid health gains and also underscored the contribution of social awareness creation, female empowerment, increased literacy rates, remarkable poverty reduction, social safety nets, women and child friendly health services, and the sector-wide approach (SWAp).

This case study describes Bangladesh’s success story using the standardized approach used by the Universal Health Coverage Studies Series (UNICO Studies Series) to provide a balanced account of the key pillars that lay behind the success of pluralism in the health system of Bangladesh. The aim is to recognize the contributions of the different actors (including the Government and the informal sector, which in the past have not been sufficiently recognized) and the strengths and weaknesses of these pillars as the needs and opportunities evolve due to emerging health issues. This lack of knowledge is an impediment to policy formulation and implementation aimed at maintaining the success of Bangladesh in the health sector. The case study suggests that there were four pillars to the successful pluralism that characterized Bangladesh: (a) effective prioritization of public financing on highly cost-effective interventions, (b) effective alignment of government and DP financing based on the mechanism of the SWAp, (c) extensive use of female CHWs and innovative NGOs, and (d) a large informal private sector that functions as a retailer of an unusually large and competitive domestic pharmaceutical industry. It should be acknowledged that determinants such as significant poverty reduction, education of girls, female labor force participation, and water and sanitation interventions outside the health sector also played a significant role in achieving better health outcomes.

The UNICO Studies Series program was launched in 2013 with the objective of sharing knowledge regarding pro-poor reforms expanding health coverage. The series, which today includes case

studies of 40 countries, is aimed at policy makers and Universal Health Coverage (UHC) reform implementers in low- and middle-income countries. The UNICO Studies Series employs a standardized approach aimed at understanding the tools—policies, instruments, and institutions—used to overcome a legacy of inequality by tackling a financing gap (by spending additional resources in a pro-poor way) and a provision gap (by expanding the supply of services and improving incentives).

Health System: Financing and Delivery

Health financing in Bangladesh, at 3 percent of gross domestic product (GDP), is low compared with countries at a similar level of development. Government expenditure in health, at less than 1 percent of GDP is one of the lowest in the world. The low expenditure ratios of today exist despite rapid growth in public and private expenditures for health in recent years (at around 7 percent per year in real terms during 1998–2015). This is because the economy has also grown very fast, and as a result, the ratios of expenditure to GDP have remained around 3 percent, although per capita expenditures have increased fourfold since 1998. A health care financing strategy was approved in 2012 emphasizing the implementation of health insurance schemes as the main strategy to raise revenues; it has not been implemented, and observers of similar schemes in other LICs are skeptical that it would raise revenues significantly. A World Bank study estimated that reprioritization of health in the budget would increase health spending substantially in the medium term.

While there has been a significant effort to expand the public sector capacity in the decades after the war of independence, public provision of health services remains very small. This is especially significant for ambulatory services which are largely provided by informal drug vendors. The public sector has a more significant role in the provision of hospital services, especially at the tertiary level where the public sector is the main provider for poor and better-off families. NGOs play an important role in the provision of community services, but according to household survey data, they are very small as providers of clinical services.

How Did Pluralism Succeed in Bangladesh?

Many LICs with higher levels of health expenditures have not been able to achieve the rapid improvements in health outcomes seen in Bangladesh. Given the unusually low government expenditure in Bangladesh, the improvements in outcomes had to rely on turning what could have been a weak and fragmented health system into a system of successful pluralism—a successful combination of public, private, and NGO services and efforts. The beginnings of institutional pluralism, social mobilization, and empowerment of women took place after the 1971 independence war. Below are some highlights of how these pillars contributed to a successful pluralism and brief remarks about the challenge in each of these pillars as the needs of the population and the context in the country have evolved.

(a) *Prioritization and Essential Service Package*

While the government has spent comparatively little, it has spent it comparatively well. Initially, prioritization came in the form of the implementation of cost-effective vertical programs supported at the time by the development community. In the late 1990s, there was a concerted effort to consolidate these vertical programs into a unified program delivering an essential service package (ESP). Originally, ESP was centered on FP, maternal and child health, nutrition, immunization, and control of communicable diseases. More recently, the efforts evolved to expand this narrow set of initial interventions to include other interventions that are currently in high demand. The expanded ESP resulted from a participatory process with contributions from the Government and DPs and now includes noncommunicable diseases (NCDs). A significant change of recent years has been a change of focus for health promotion and prevention from home-based services provided by community health agents to clinic-based services provided by health professionals.

The Government faces a challenge regarding how to prioritize its health expenditures in the future. While DPs emphasize the need to maintain the emphasis on ESP, there are domestic constituencies that push for greater investment in hospitals. As a result, the fraction of the budget of the Ministry of Health and Family Welfare (MOHFW) spent on ESP has fallen during the last decade, from 48 percent in 2006 to 38 percent in 2015.

(b) *Alignment of Domestic and Development Assistance for Health: The SWAp*

Following independence in 1971, many DPs converged in Bangladesh supporting health projects with individual project implementation units. The health projects resulted in duplications, inefficiencies, and overlapping initiatives. In 1998, Bangladesh was the first country to implement a SWAp Program in the health, nutrition, and population (HNP) sector. The first SWAp replaced 128 individual projects. The SWAp has been implemented in a series of five-year strategies. Numerous studies have shown that the SWAp had numerous advantages, including developing a harmonized plan that prioritized ESP, reducing transaction costs, strengthening the MOHFW's stewardship and management role over time, and strengthening fiduciary oversight and oversight on resource utilization and service delivery.

The Bangladesh SWAp still faces some important challenges in its efforts to align public and donor financing for health care. These include the exclusion of some important areas of health care, which are managed by agencies that operate outside the SWAp; perhaps the most surprising example is that all ambulatory urban health is managed in Bangladesh by a different ministry. In addition, the MOHFW continues to implement several projects and activities outside of the SWAp, and as mentioned above, the fraction of the budget assigned to the ESP (the focus of the SWAp) is rapidly falling.

(c) *CHWs and Engagement with NGOs*

Many of the achievements in health service delivery have been attributed to three features that are uncommon in many other countries:

- Application and adaptation of community-based approaches and CHWs by the Government and by NGOs such as Building Resources Across Communities (BRAC), Cooperative for Assistance and Relief Everywhere (CARE), and United States Agency for International Development (USAID) funded NGOs at scale
- Partnerships between the Government and NGOs that allowed for an early and rapid adoption of innovations in service delivery (Oral Rehydration Therapy Program and National Tuberculosis Program)
- A culture of significant gender equity, leading to the abundant use of women health workers and the empowerment of women as users of health care. This feature is sometimes attributed to the war of liberation leading to the defeat of both foreign occupiers and local religious extremists and laid the ground for progressive ideas to flourish.

As is often the case in postwar situations, Bangladesh is witnessing a slow transformation of its delivery system. The focus on women health workers, door-to-door community-based approach, and partnerships of the Government and NGOs initially emerged in response to a major shortage of health workers. At the community level, the Government has been successful at creating a new network of community clinics (CCs) for every 6,000 rural population since 2008; recent studies show these CCs are now providing a significant volume of services. Of the three CC staff, two also provide door-to-door services.

(d) The Private Sector and the Domestic Pharmaceutical Industry

An essential element to understand the contribution of the private sector to successful pluralism is the existence of a huge domestic pharmaceutical industry; in addition to being the second-largest source of tax revenues in the country, the industry has led to the development of a large and competitive domestic retail sector. More than 80 percent of the pharmacy clients were given medicines on request. While not exempt of problems, the existence of village doctors and informal drug vendors gives the population extensive access to inexpensive pharmaceuticals. This is one of the ingredients of the low cost in the ‘good health at low cost’ characterization of Bangladesh.

Given the structure of the retailing industry, the cost of drugs often includes the cost of the consultations. While the cost of drugs may be relatively low compared with similar countries with smaller or less competitive industries, the joint cost of drugs and consultation absorbs a large part (64 percent) of the out-of-pocket expenditure (OOPE). Another, perhaps even greater, challenge relates to the quality of the advice obtained from untrained drug retailers and village doctors and with the existence of some low-quality drugs in the market (Das, Hammer, and Leonard 2008).

Until now, the main explanations of successful pluralism were the four elements discussed above. These elements may no longer be sufficient as the epidemiological challenges are changing, the population’s expectations are increasing with economic growth, and the health system is taking new forms. Future success will need to rely to a greater extent on increased health financing, development of human resources (HR) for health, provision of NCDs, establishment of a new

institutional framework for urban health, and strong health information systems (HISs). Normally, it is expected that future prioritization and future alignment would be the result of increased public expenditure. Attempts are being made to find an optimistic future without higher public expenditure. Fortunately, Bangladesh is working hard to strengthen its electronic HIS, HR for health, and NCD services.

Conclusions

Bangladesh has been portrayed in the literature as having a history of success achieving good health at low cost. Public funding and public provision of health care are surprisingly small when compared with other LICs that have succeeded in improving health outcomes for their population. Improved outcomes with a small public sector were achieved based on a health sector characterized by successful pluralism. This case study has shown that success despite small public spending was based on four pillars: (a) strong prioritization of the small public sector spending on highly cost-effective and well-targeted interventions; (b) effective alignment of public and donor funding; (c) emphasis on a delivery system with an oversized frontline composed of mostly female community agents providing initially home-based care and supported by the Government, donors, and NGOs; and (d) a large and competitive pharmaceutical retail system that makes available relatively inexpensive and good quality drugs (when compared with LICs from around the world).

What worked in the past is likely not what is needed to have continued success going forward. These four pillars may not be enough to sustain successful pluralism into the future because of the following: (a) prioritization of government health expenditures is weaker than before; (b) support from the DPs is less plentiful as health is a lesser priority for some DPs than in the past; (c) the burden of disease and the demographic structure of the country has changed, and income has increased; (d) the relative weight of community workers is declining with large investments in secondary and tertiary health facilities and significant recruitment of health workers to provide a large package of services beyond community-based care; and (e) there has not been significant improvement in policy and regulation of private retail drug industry to create the platform needed for a private sector-based effort of prevention of the NCD epidemic. On the other hand, there are potentially new sources of successful pluralism. Future success will need to rely to a greater extent on increased health financing, development of HR for health, establishment of a new institutional framework for urban health, and strong HISs.

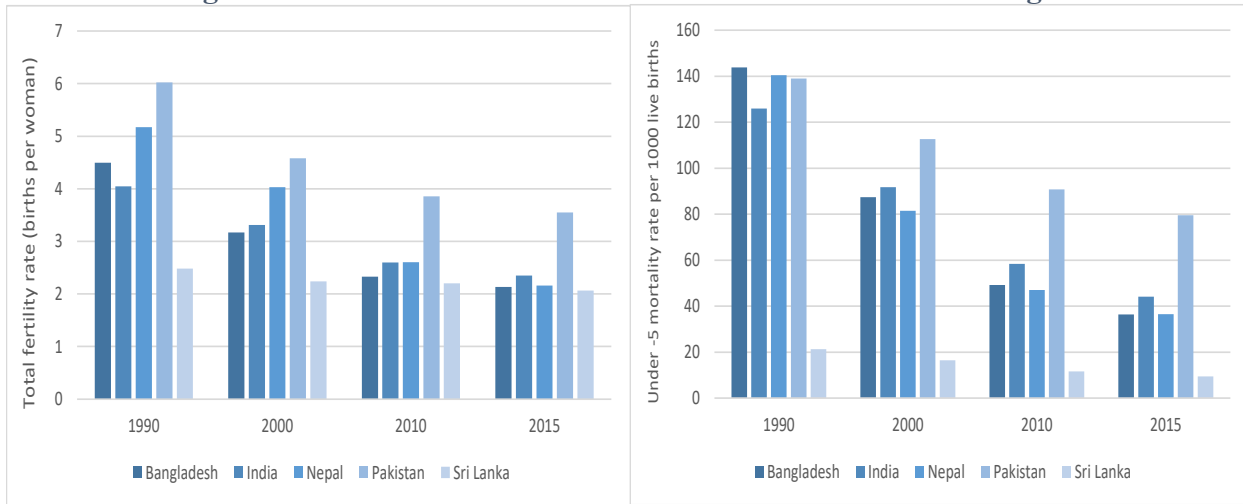
1. Introduction

1. Bangladesh is often cited as an example of success demonstrating how a low-income country (LIC) can rapidly improve its health outcomes at very low cost. In the last five decades, its health outcomes have improved dramatically; especially in the last three decades, improvement was faster than in countries that started with a similar baseline (Figure 1.1 and Source: [World Development Indicator Database](#))

2. **Figure 1.2).** Bangladesh's achievements of the health Millennium Development Goals (MDGs) regime were highly notable and internationally recognized. The country was one of the top 10 countries that met MDG 4 (ODI 2019). The country has made impressive progress in immunization coverage, tuberculosis (TB) control, life expectancy, total fertility rate, and infant and under-5 mortality rates, despite spending less on health care compared with other peer countries in the South Asia region (Balabanova et al. 2013). This success in health outcomes was achieved by a country with very low expenditures in health care. In 2011, its success was highlighted by the Rockefeller Foundation and the London School of Tropical Hygiene as proof of the possibility of achieving 'good health at low cost' (Balabanova et al. 2013). In 2013, the Lancet (Ahmed et al. 2013; Arifeen et al. 2013; Chowdhury et al. 2013; Das and Horton 2013) published a series of articles aiming to explain the paradox of a country with exceptional health achievements despite widespread poverty and weak health systems; it emphasized how Bangladesh, emerging after the war of independence with very weak health systems, witnessed the development of 'successful pluralism' in health care instead of a failing fragmented system. In 2017, the Government of Bangladesh (GOB) published its own assessment (DGHS 2017) of the country's success, highlighting the role played by the Government's supportive policy and partnership with development partners (DPs), nongovernmental organizations (NGOs), and civil society in rapid health gains. The assessment also recognized the contribution of factors outside the health sector such as female empowerment, increased literacy rates, dramatic poverty reduction, and social safety nets (Source: [World Development Indicator Database](#))

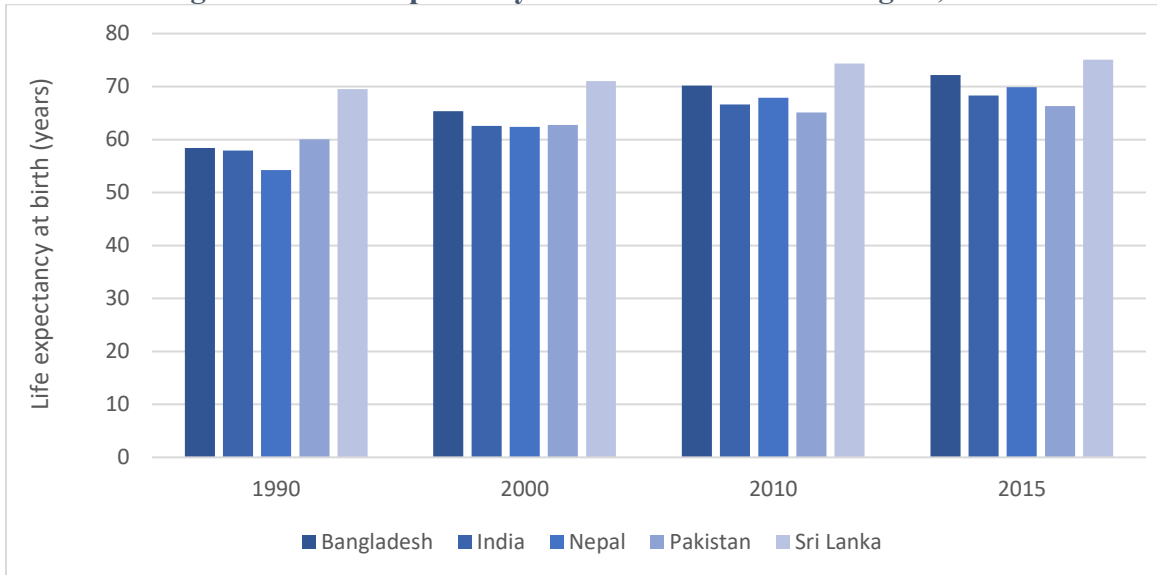
3. **Figure 1.3).** Although this case study presents success stories for the entire period from 1971, data were presented depending on availability referring to the 1990s, post-2000, and the MDG era.

Figure 1.1. Selected health indicators across countries in the region



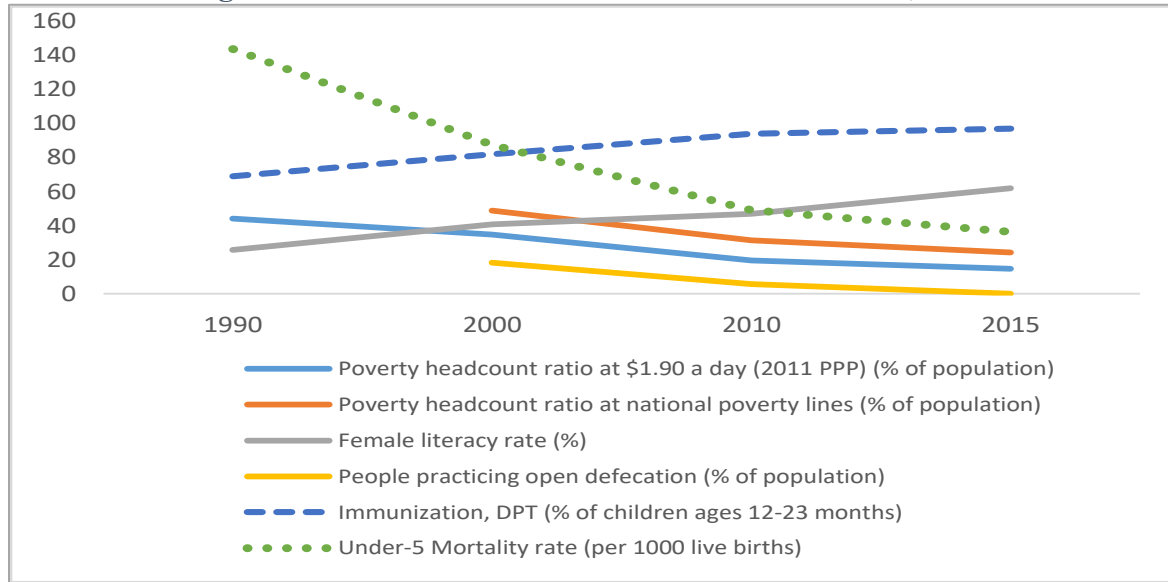
Source: World Development Indicator Database

Figure 1.2. Life expectancy across countries in the region, 1990–2015



Source: World Development Indicator Database

Figure 1.3. Selected non-health and health indicators, 1990–2015



Source: World Development Indicator Database

Note: For poverty-related indicators 1991 data are given for 1990 and 2016 data are given for 2015.

2. Bangladesh became an independent country in 1971 following a war of liberation. Independence laid the ground for progressive ideas to flourish. As part of the national development processes, large-scale family planning (FP) and social development programs for the marginalized populations were established. These happened despite opposition from conservative religious factions. The beginnings of institutional pluralism, social mobilization, and empowerment of women took place after the 1971 war. There was a policy shift toward privatization after 1971 and the promotion of the private sector which led to job creation and increased foreign exchange. Many stakeholders, the Government, NGOs, private health providers including informal providers, and international DPs were allowed to flourish in an environment for pluralistic reform. The country has maintained an ideology and policy approach to ensure progress in public health. The constitution of Bangladesh recognizes health care, improvement in nutrition, and public health as major fundamental rights of the citizens. The provision of basic health services in Bangladesh is a constitutional obligation of the Government. Widespread deployment of (mostly female) community health workers (CHWs) is bringing high-priority services to every household in the country. NGOs are playing a great part in community mobilization and in having a strong community health workforce (Arifeen et al. 2013). Pro-women development programs such as microfinance and education place women in the forefront (Das and Horton 2013).

3. Bangladesh made remarkable progress in the health sector (Table 1.1) in the past years. The Lancet Series (Ahmed et al. 2013; Arifeen et al. 2013; Chowdhury et al. 2013; Das and Horton 2013) explained the success by the extensive use of mostly female CHWs for FP, the support of innovative NGOs, and the constitutionally enshrined right to health. The Government and NGOs worked together to increase awareness and to provide health and FP services.

Table 1.1. Progress in key health indicators, Bangladesh, selected years

	1993–94	1996–97	1999–2000	2004	2007	2011	2014	2017–18
Infant mortality rate (per 1,000 live births)	87	82	66	65	52	43	38	38
Under-5 mortality rate (per 1,000 live births)	133	116	94	88	65	53	46	46
Total fertility rate (births per woman)	3.4	3.3	3.3	3.0	2.7	2.3	2.3	2.3
Maternal mortality ratio (MMR) (per 100,000 live births)	—	—	322 (2001)	—	—	194 (2010)	—	—
Prevalence of stunting among children under 5 (percentage)	—	—	—	51	43	41	36	31

Sources: Bangladesh Demographic and Health Survey (BDHS), various rounds, and Bangladesh Maternal Mortality and Health Care Survey 2010.

4. The Government, DPs, and NGOs supported the implementation of high-priority health services such as FP, immunization, oral rehydration therapy (ORT), TB, vitamin A supplementation, and others at the community level. They are committed to the expansion of access to priority basic health services at the community level. These high-priority programs evolved including the establishment of community clinics (CCs) over time and have a positive effect on health outcomes (Chowdhury et al. 2013).

5. Although there have been notable improvements in some health indicators, the country still faces considerable challenges in the health sector. Bangladesh is still facing stagnation of MMR, high stunting rates among children, stagnation of contraceptive prevalence, increasing burden of noncommunicable diseases (NCDs), emerging and reemerging diseases (for example, avian flu and TB), and high out-of-pocket expenditure (OOPE). There are regional disparities in health outcomes (maternal mortality and total fertility rates). Allocation of resources from the government budget for the health sector is limited due to lack of prioritization of health in the budget while the country's economy has been growing fast and is projected to continue doing so. There is almost no decentralization in the management of the very extensive network of health facilities at different tiers, ranging from CCs at the village level to very specialized tertiary hospitals. The inadequate number of primary health care (PHC) facilities in urban areas and the rapid unplanned urbanization are putting pressure on all the social sectors including the health sector.

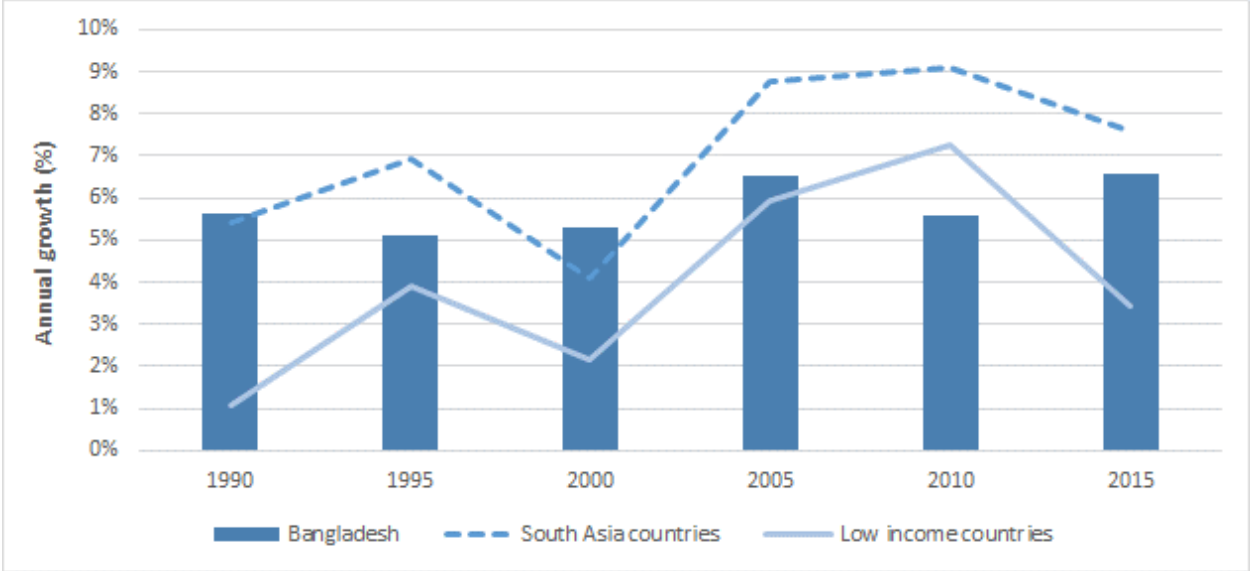
6. This case study describes Bangladesh's success story using the standardized approach used by the Universal Health Coverage Studies Series (UNICO Studies Series) to provide a balanced account of the key pillars that lay behind the success of pluralism in the health system of Bangladesh. The aim is to recognize the contributions of the different actors (including the Government and the informal sector) and the strengths and weaknesses of these pillars as the needs and opportunities evolve. Huge poverty reduction, education of girls, female labor force participation, and water/sanitation interventions outside the health sector also played a significant role in achieving better health outcomes, although this case study will not highlight these non-

health sector determinants. The case study suggests that there were four pillars to the successful pluralism that characterized Bangladesh: (a) effective prioritization of public financing on highly cost-effective interventions, (b) effective alignment of government and DP financing based on the mechanism of the sector-wide approach (SWAp), (c) extensive use of female CHWs and innovative NGOs, and (d) a large informal private sector that functions as a retailer of an unusually large and competitive domestic pharmaceutical industry. This case report is mostly about the past, and the future is discussed elsewhere (WHO 2015; World Bank 2016, 2017a, 2017b).

2. Context

7. In 2015, Bangladesh with a GDP per capita of US\$1,089 in 2014 was elevated to a low- and middle-income country status from an LIC status. Bangladesh experienced a robust economic growth, averaging over 6.2 percent annually over the decade to 2015 (Figure 2.1). This rate was slower than the average for South Asia (7.1 percent) but it was faster than the LIC average (5.4 percent).

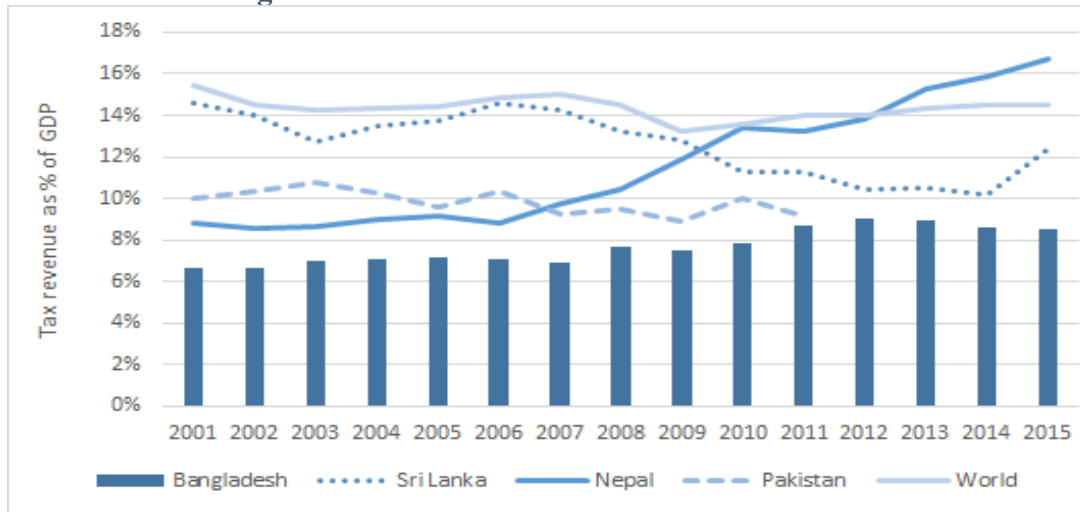
Figure 2.1. GDP growth of Bangladesh, South Asian countries, and LICs



Source: World Development Indicator Database.

8. However, this robust economic growth has not been translated into higher spending due to low government revenues. The government revenues as a share of GDP were 10.9 percent in FY2014 compared to 17.5 percent for South Asian countries (World Bank 2016). Bangladesh has one of the lowest tax revenue-to-GDP ratios in the world (Figure 2.2).

Figure 2.2. Tax revenue-to-GDP ratio for selected countries



Source: World Development Indicator Database.¹

Universal Health Coverage Status in Bangladesh

9. Achieving the universal health coverage (UHC) target 3.8 of Sustainable Development Goal (SDG) 3 has two indicators to monitor the world’s progress toward UHC: (a) the coverage of essential health services (3.8.1) and (b) the proportion of a country’s population with catastrophic spending on health (3.8.2). The latest report on global monitoring for UHC in 2017 (WHO and World Bank 2017) used the UHC service coverage index to monitor the coverage of essential health services (3.8.1). The UHC service coverage index is computed based on tracer indicators. The incidence of catastrophic spending on health is reported on the basis of OOPEs exceeding 10 percent and 25 percent of household total income or consumption.

10. The UHC service coverage index for Bangladesh was 46 in 2015. This is equal to the index for the Africa region (46) but much lower than the global index (64) and the index for the South Asia region (53), according to the global monitoring report 2017 (WHO and World Bank 2017). Sri Lanka (62) and India (56) in the South Asia region are better performers than Bangladesh in terms of UHC service coverage index (Table 2.1).

11. In Bangladesh, in 2010, 13.6 percent of the population incurred catastrophic out-of-pocket payments at the 10 percent threshold and the corresponding figure for the incidence rate at the 25 percent threshold was 4.8 percent (WHO and World Bank 2017). The incidence of catastrophic spending (13.6 percent) at the 10 percent threshold is lower than the corresponding figures for India, Nepal, and the Sub-Saharan Africa region as well as globally (Table 2.1). On the other hand, the incidence of catastrophic spending at the 25 percent threshold is higher in Bangladesh than those of the same comparator countries and regional averages. About 4.5 percent of the population of Bangladesh was impoverished on health care at the 2011 purchasing power parity \$1.90-a-day poverty line in 2010, which is higher than its comparators. However, a low incidence of

¹ <https://data.worldbank.org/indicator/gc.tax.totl.gd.zs> updated on March 21, 2019.

catastrophic or impoverishing spending on health not necessarily means better financial protection, but it could also mean that people are not getting the needed health care because services are inaccessible or unaffordable. Hence, financial protection always needs to be jointly examined with service coverage.

Table 2.1. The status of UHC in Bangladesh and selected countries and regions

Country	Service coverage index	Incidence of catastrophic expenditure (% of population)		Incidence of impoverishing health sending at the 2011 purchasing power parity \$1.90-a-day poverty line (% of population)
		At 10% of total household consumption or income	At 25% of total household consumption or income	
Bangladesh	46	13.57	4.84	4.51
India	56	17.33	3.90	4.16
Nepal	46	27.41	3.31	1.85
Pakistan	40	1.03	0.02	1.00
Sri Lanka	62	2.89	0.10	0.05
Global	64	11.70	2.60	1.40
South Asia	53	13.50	3.00	3.50
Sub-Saharan Africa	42	10.30	2.50	1.60

Source: Global Monitoring Report 2017.

Health Financing

12. Health care financing in Bangladesh is a combination of different financing mechanisms. Each part of the system has largely distinct sources of financing: private providers are mostly financed by household OOPE, NGO providers are supported by international funding as well as OOPE, and government services depend on the government budget, including on-budget international financing. The Government uses tax revenues to subsidize the cost of health care provided in public facilities along with payment of salaries for the health workforce. To make the health services accessible to the poor, the Government provides free services at the subdistrict level and below. Social and private insurance is almost nonexistent.

13. Bangladesh spent US\$37 per capita as total health expenditure (THE) in 2015 (MOHFW 2018). Households' OOPE dominated as the main source of financing for THE. OOPE accounted for more than two-thirds (67 percent) of THE, followed by government health financing (23 percent). NGOs contributed about 2 percent. THE accounted for 3 percent of the gross domestic product (GDP) (MOHFW 2018).

14. The health financing landscape in Bangladesh has two distinct features. Public financing for health is low, and as a share of GDP, it is one of the lowest in the world (World Bank 2016).

The other feature is the high burden of household OPE, which is one of the highest² in the world and in the region (Table 2.2).

15. Key health financing indicators were stable over the decade between 2006 and 2015. THE as a ratio to GDP has been around 3 percent, and government health spending as a share of GDP has been below 1 percent. The Ministry of Health and Family Welfare (MOHFW) spending dominates the government health spending, accounting for, on average, about 93 percent during the same period. Key MOHFW spending indicators have also been stable over that same decade. The MOHFW spending as a share of total government spending has been below 6 percent during that period (Figure 2.3)

Table 2.2. Health financing indicators for Bangladesh and selected countries, 2015

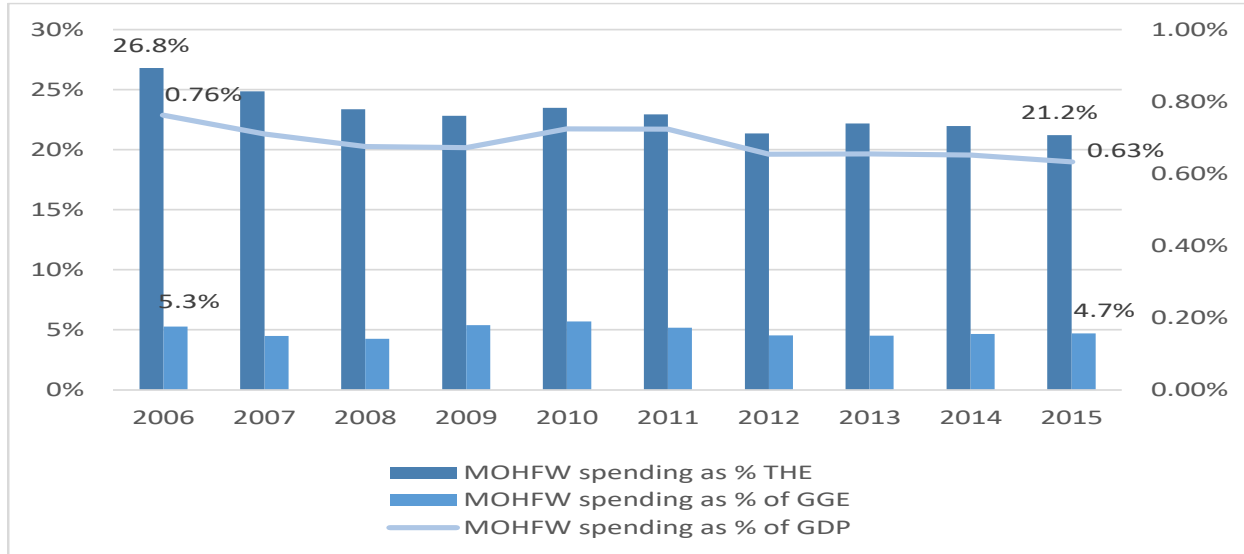
Countries	Current health expenditure (CHE) per capita (US\$)	CHE as % of GDP	General government health expenditure (GGHE) as % of GDP	GGHE as % of CHE	GGHE as % of general government expenditure (GGE)	OOPE as % of CHE
Bangladesh	32	2.5	0.4	18	3.4	72
India	59	3.6	0.9	26	3.1	65
Nepal	45	6.2	1.0	17	5.1	59
Pakistan	38	2.7	0.7	28	3.7	66
Sri Lanka	151	3.9	1.7	44	8.4	49
<i>South Asia region</i>	166	5.2	1.8	35	8.0	54
<i>LICs</i>	41	6.5	1.3	22	5.8	40
<i>Low- and middle-income countries</i>	130	5.6	2.4	43	7.8	40
<i>World</i>	831	6.3	3.3	52	9.6	33

Source: Global Health Expenditure Database (GHED), WHO (2019).

Note: Average for South Asia region is estimated from GHED data by authors.

² Ninth highest burden of OPE as evident from the WHO GHED database, <http://apps.who.int/nha/database> accessed on January 30, 2019.

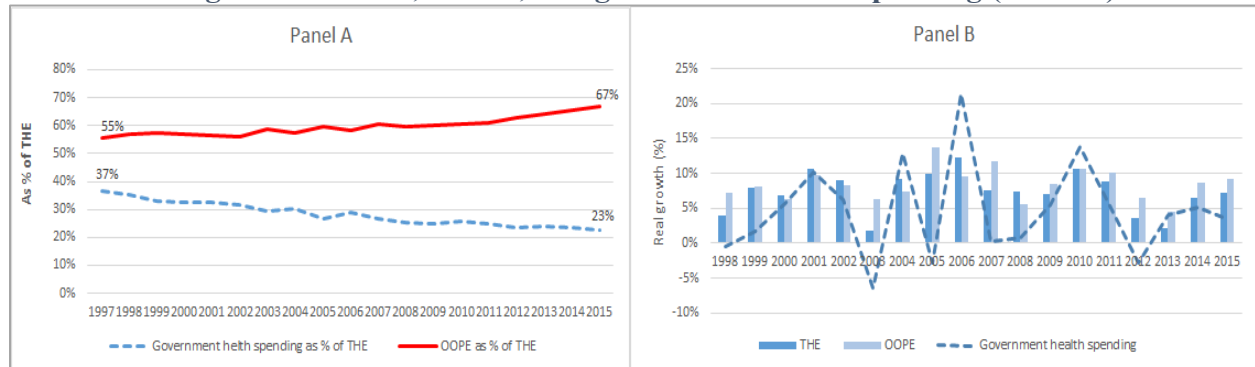
Figure 2.3. MOHFW spending as a share of THE, GDP, and total government spending 2006–2015



Source: Bangladesh National Health Accounts (BNHA) 1997–2015, budget brief for various years, Ministry of Finance (MOF).

16. Due to low public financing, THE is dominated by high household OOPE, which shows an increasing trend over the years. As mentioned earlier, OOPE accounted for more than two-thirds of THE in 2015 (Figure 2.4, Panel A). Figure 2.4, Panel B presents the average annual growth rate in health expenditure indicators after adjusting for inflation. The average annual real growth of OOPE (8 percent) outpaced the real growth of THE (7 percent) and government health spending (5 percent) during 1997–2015 (Figure 2.4, Panel B).

Figure 2.4. OOPE and government health spending as a share (%) of THE (Panel A) and real growth of THE, OOPE, and government health spending (Panel B)

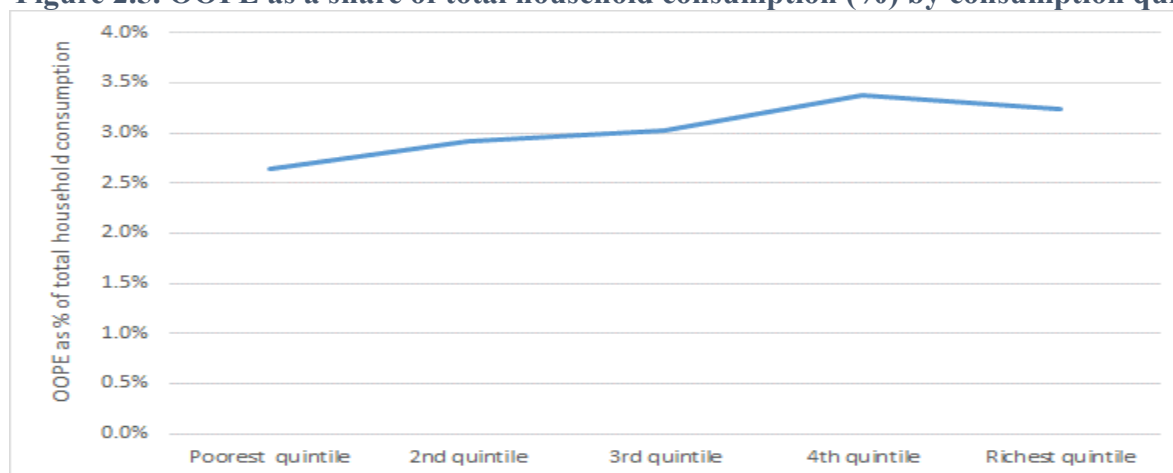


Sources: BNHA 1997–2015; MOHFW 2018.

17. OOPE puts considerable burden on households, particularly the households in the poorest quintile. OOPE constituted about 4 percent of the total household consumption in 2016. Even the poorest quintile spent on average 3 percent of household consumption for health care (Figure 2.5). Some of the poorest households may not seek health care at all because they cannot afford it.

However, the richer section of the population spent a higher proportion of household consumption on health as indicated by a positive concentration index (CI=0.0840).

Figure 2.5. OOPE as a share of total household consumption (%) by consumption quintiles



Source: Authors' calculation from the Household Income and Expenditure Survey (HIES) 2016.

18. The breakdown of OOPE in 2015 finds that the expenditure on drugs constituted about 64 percent of OOPE (MOHFW 2018). OOPE at drug outlets made up 1.3 percent of GDP, which was much higher than the government health spending's share in GDP (0.68 percent) in the same year. Easy availability of medicine in private pharmacies or informal drug outlets also leads to high OOPE on medicines (Kasonde et al. 2017). In Bangladesh drug retailers are also the primary source of informal outpatient services, and clearly, they have a financial incentive to prescribe more medicines to increase sales and profit. It is estimated that in 2015, US\$2.55 billion was spent on medicines in Bangladesh, of which only 5 percent was spent by the Government (Kasonde et al. 2017). Due to the high burden of OOPE for health care, on average, around 3.5 percent of the total population fell into poverty each year, which corresponds to economic impoverishment of 5 million people in Bangladesh (Khan, Ahmed, and Evans 2017).

3. Brief Description of Public Health, Primary Care, and Key Supply-side Efforts

19. The public health service provision in Bangladesh is fragmented, despite its centralized system. The Directorate General of Health Services (DGHS) and the Directorate General of Family Planning (DGFP) under two separate divisions of the MOHFW are each responsible for providing health services and managing health facilities, sometimes leading to fragmented management of the system. Besides this fragmentation within the MOHFW, service provision responsibilities in urban areas are also fragmented. While the MOHFW is primarily responsible for health services in rural areas, government services in urban areas are coordinated by the local government institutions/bodies and the Ministry of Local Government, Rural Development, and Cooperatives (MOLGRD&C) along with the MOHFW. The Government retains its overall stewardship role, particularly through monitoring and evaluation of outcomes and service delivery indicators.

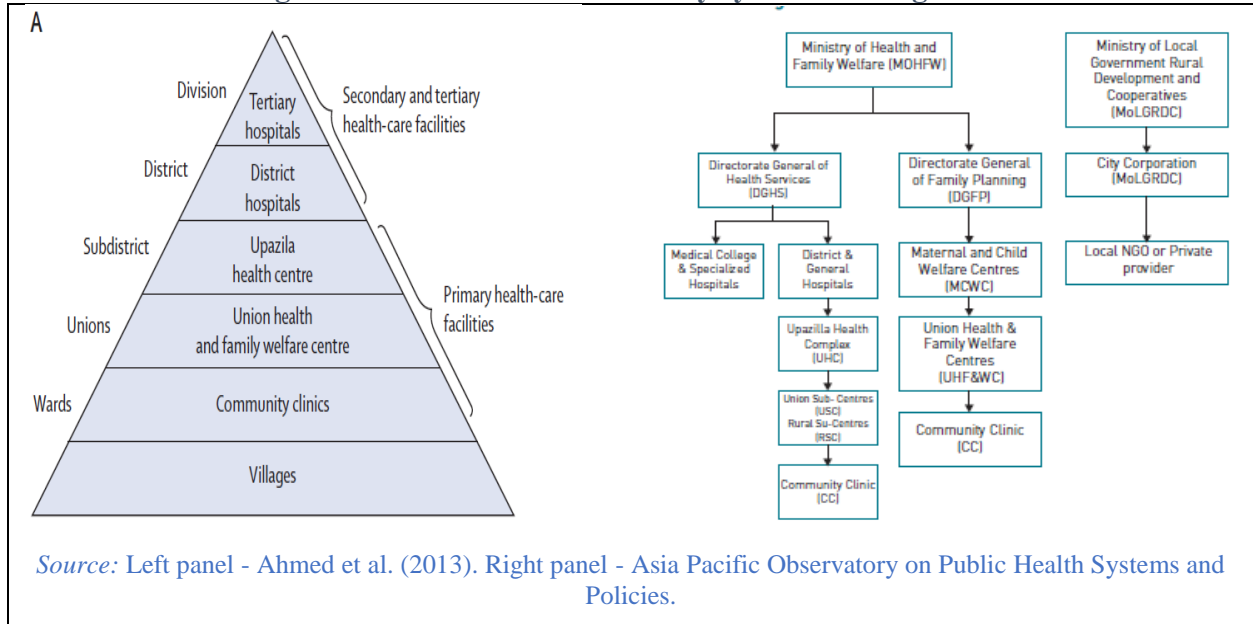
20. The health and FP services are managed at three levels in Bangladesh. The three levels are the national level (the MOHFW including the DGHS and DGFP), the middle level (division and district), and the operational level (subdistrict and below). The MOHFW and directorates are responsible for determining policies and objectives, planning, financing, supervising of programs, and coordinating health services with other governmental organizations and NGOs. The middle-level managers are responsible for channeling the health services to subdistrict-level health offices and coordinating with other government organizations and NGOs at the divisional and district levels. The operational-level managers, within the prescription formulated by the MOHFW and directorates, implement planned activities through supervising and maintaining record keeping, managing logistics, and carrying out personnel functions, such as disbursement of salary, transfer, leave, and arrangements of travel.

21. Bangladesh has a large, extensive public health infrastructure from the community to the national levels providing primary, secondary, and tertiary care (DGHS 2016). Primary-level facilities (16,968) are located at the subdistrict level and below. District-level hospitals (65) are providing secondary-level health care. Medical college hospitals (14) at the district and divisional levels provide a range of specialized care including laboratory facilities for the treatment of complicated cases. The specialized hospitals (14) mostly operate at the national level. In Bangladesh, three tiers of the public PHC system include *Upazila* Health Complexes (UzHCs) at the subdistrict level, Union Health and Family Welfare Centers (UHFWCs) at the union level (collection of few villages), and CCs at the village level. This system was established to serve the population at large.

22. Bangladesh has built, over the past decades, a good network of health facilities at the district level. District hospitals provide more advanced or specialty care than the PHC facilities at the upazila level and below. The UzHCs provide limited inpatient services, and some provide emergency obstetric care services. However, many of the UzHCs have clinical specialists who provide specialty care to the patients. The UHFWCs concentrate on the provision of maternal and child health care and provide only limited curative care. The CC is a unique extension of PHC

services to the door steps of the rural people of Bangladesh. The CC is the lowest tier health facility at the primary level established throughout the country including very hard-to-reach, remote, and isolated areas.

Figure 3.1. Health service delivery system in Bangladesh



23. The two directorate generals (the DGHS and DGFP) developed arrangements for separate services, particularly for primary care at the subdistrict level and below which led to a duplication of health programs. These separate arrangements also led to the development of specialized cadres of health personnel, together with separate health facilities and supporting services. However, considerable efforts have been made in the late 90s to unify the health and FP wings of the MOHFW at the subdistrict level and below, which did not produce positive results. Institutional constraints and differences between the different cadres of health personnel were not considered (WHO 2015). The constraints hamper effective coordination and monitoring of services, efficient management of logistics and supplies, and adequate mobilization of human resources (HR). Addressing this duplication of services remains an unfinished agenda for Bangladesh.

24. Although access to public health facilities at the district level and below is reasonable, these facilities are underutilized and their services are perceived to be of poor quality (Vaughan, Karim, and Buse 2000). About 12 percent of UzHCs reported less than 40 percent occupancy rate in 2014 while the corresponding figure in 2001 was around 4 percent (DGHS 2007, 2015). Overall bed occupancy rate of UzHCs was 76 percent in 2001, which increased to 79 percent in 2015 (DGHS 2007, 2016). The UHFWCs and CCs still lack adequate drugs and other medical aids because the centralized procurement of logistics results in delays (Kasonde et al. 2017). There are also major problems with regard to HR. In addition to the uneven distribution of staff, many sanctioned posts are vacant. A feasibility study on the essential service package (ESP) found that only 22 percent of general practitioners' positions sanctioned at the union-level facilities were actually filled, and less than 60 percent of all doctors (general practitioners and consultants) deployed at the UzHCs

were actually working in their posts (Modol 2016). The union-level facilities are worse off, where only paramedics and field supervisors seem to fulfil above 50 percent of the positions (Modol 2016). These limitations restrict the access of the poor and disadvantaged groups to most publicly funded PHC services.

25. Since independence, the GOB has been committed to ensuring the expansion of the rural health infrastructure to provide comprehensive PHC to the entire population (MOHFW 2015). The health sector program between 1998 and 2003 expanded PHC facilities to the village level through the construction of CCs. Established in remote and hard-to-reach areas, these clinics represent the lowest tier of government health facilities, each serving a population of 6,000. In 2009, under the 'Revitalization of Community Health Care Initiatives in Bangladesh' project, the Government revitalized the clinics, where existing clinics were made functional and new clinics were constructed. As of July 2018, 13,136 CCs were providing health services at the community level. With this initiative, people across the country could avail of health, FP, and nutrition services under one roof and within half-an-hour walking distance from their homes (WHO 2019). This flagship program of the GOB is now recognized globally as a model for PHC. CCs cannot take credit for the pre-2009 improvement, however they were important for the post-2009 improvements, including during the MDG period.

26. CC is a unique example of community participation and public-private partnership (PPP). All clinics are constructed on land donated by the community, while the Government provides medicines, service providers, and logistical support (MOHFW 2019). Each clinic has one managing body titled the community group (CG) with active participation of local community members: elected local government representatives including women, teachers, representatives of landless and the poorest of the poor, and adolescent girls and boys (MOHFW 2019). The CG is responsible for daily operation, monitoring of the clinic function, and fund-raising for improvements, while it promotes the use of clinic services and educates people on health. On the whole, CCs have taken off as the first-contact facility providing PHC and maternal and neonatal health services and have contributed significantly to the overall improvement of health in Bangladesh, especially antenatal care (ANC) and postnatal care (PNC). Millions of people are receiving services from CCs, and CCs have become an integral part of the Bangladesh health system. The successful operation of CCs depends on providers with required skills posted to CCs. In some locations, CCs are facing some problems including shortage of service providers and drugs.

27. The urban PHC system in Bangladesh is fragmented and uncoordinated. The system comprises health facilities of the MOHFW, MOLGRD&C, local government institutes, and several national and international NGOs. The private sector dominates the provision of PHC whereas the public sector is the main source of inpatient care. The MOLGRD&C is responsible for a wide range of PHC and public health services in urban and municipal areas. The MOHFW is responsible for providing policy and technical guidance, contraceptives and immunization supplies, monitoring, evaluation, and coordination. The MOLGRD&C lacks a basic infrastructure to provide ESP services. The MOHFW's service delivery system does not extend to the provision

of urban PHC with the exception of 35 Government Outdoor Dispensaries (GODs). These GODs are expected to provide ESP services to the urban population, although these services are not enough to meet urban health care needs. Therefore, secondary- and tertiary-level health facilities receive a large number of outpatients. The lack of coordination between the MOLGRD&C and MOHFW resulted in the lack of sufficient resource allocation to urban health services from the two ministries. DPs have supported urban PHC services mainly through contracts with NGOs.

28. Bangladesh has experienced recent growth of private formal providers in every aspect of health service delivery. The number of private facilities that include private hospitals, clinics, and diagnostic centers and the number of beds more than doubled between 2008 and 2016 (DGHS 2016). There are more than 100,000 registered pharmacies, and the number of unregistered pharmacies is not known. Private providers are poorly regulated, raising concerns for the quality of health care goods and services and well-being of patients and consumers (Kasonde et al. 2017).

29. The private health sector (both formal and informal) in Bangladesh mainly provides for-profit outpatient and inpatient curative services. A large number of private pharmacies and drug outlets make drugs widely available. These drug outlets are often the first point of contact for patients regardless of the rural-urban setting, making them consistently a dominant provider of THE (MOHFW 2018). NGOs provide mostly not-for-profit preventive and PHC services to the underserved population. NGOs in Bangladesh played a significant role in piloting and scaling up ORT and FP programs at the community level.

Health Services Utilization

30. An analysis of the HIES 2016 shows that among PHC seekers, only 11 percent sought care from public facilities whereas 89 percent went to private providers within 30 days preceding the survey (Table 3.1). A significant proportion of treatment is sought from private informal providers. The private formal sector was the main source (69 percent) for secondary care. Of the patients who sought tertiary care, 60 percent visited public facilities compared to 36 percent who visited private formal facilities.

Table 3.1. Outpatient care seeking by provider (percentage)

Type of care	Public	Private formal	Private informal	Private non-profit	Total
Primary	11%	18%	71%	0.2%	24,814,377
Secondary	29%	69%	—	2.4%	3,687,744
Tertiary	60%	36%	—	4.0%	911,091

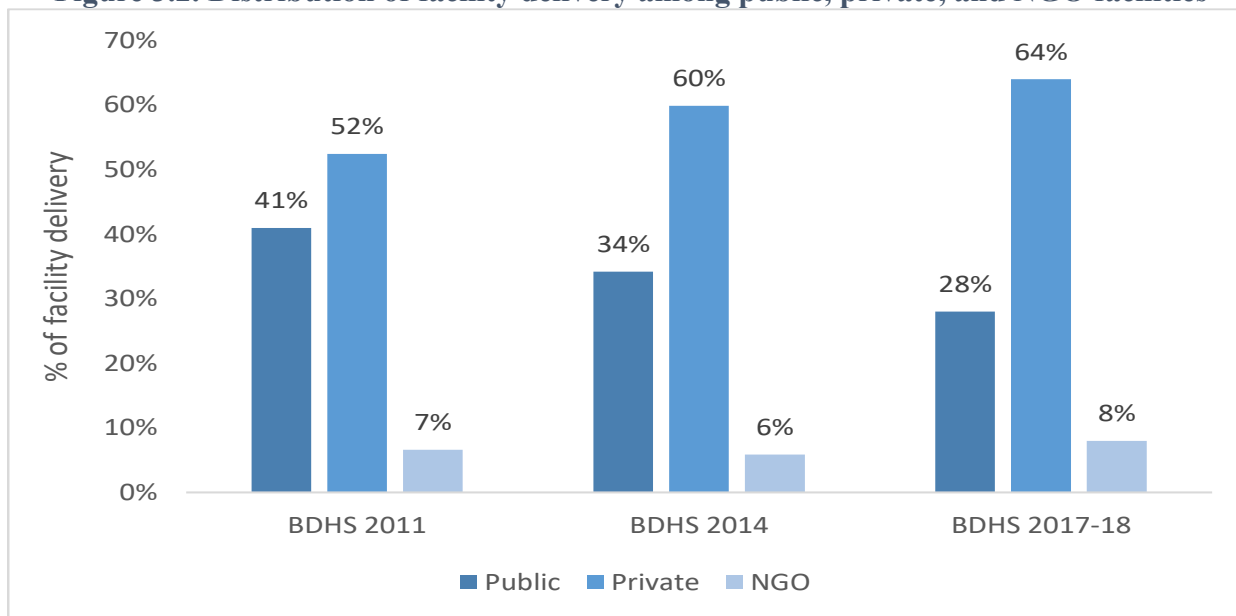
Source: Estimated from Household Income and Expenditure Survey (HIES) 2016.

Note: Primary care in the public sector is defined as *upazila* and below. Qualified doctors' chamber is defined as a formal private provider. District-level and general hospitals are included in secondary care. Other government providers are included in secondary care. Teaching and specialized hospitals are included in tertiary care.

31. The role of private health facilities is growing, particularly for primary and secondary care. According to the BDHS (2011, 2014, and 2017–18), the public sector share of facility delivery declined 13 percentage points from 41 percent within three years, while the private sector share increased by 12 percentage points from 52 percent. The NGO share in facility delivery was small

being only 7 percent and gained 1 percentage point within six years (Figure 3.2). It shows that the share of facility delivery lost by public facilities was captured mostly by private facilities.

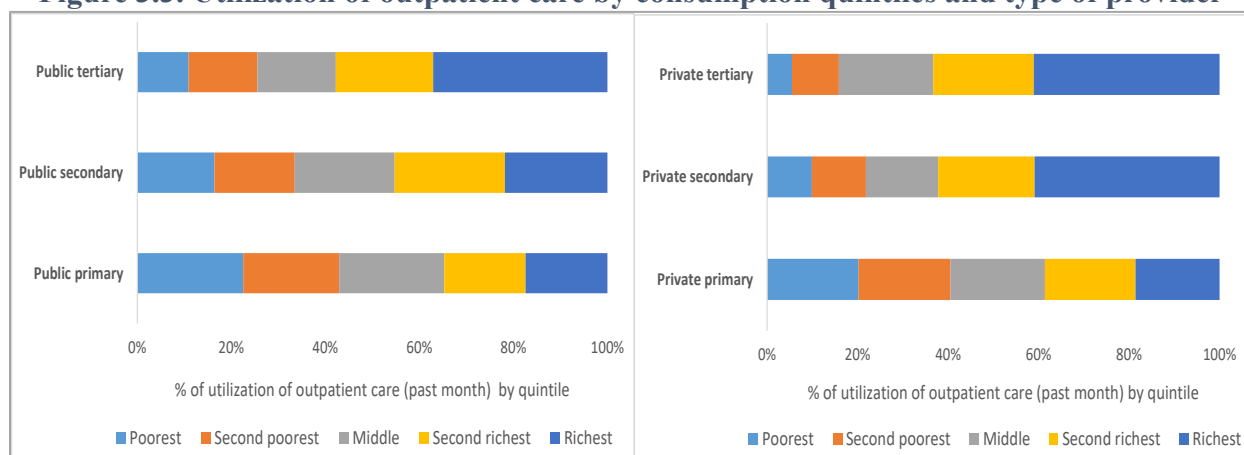
Figure 3.2. Distribution of facility delivery among public, private, and NGO facilities



Source: Bangladesh Demographic and Health Survey 2011, 2014, and 2017–18.

32. Health sector policies and strategies in Bangladesh put emphasis on providing services to the poorer and marginalized sections of the population. Some interventions target specific population groups or poor people. To examine whether health services cater to the poorer section of the population, the HIES 2016 data were analyzed. Patients from all quintiles seek primary outpatient care from both public and private providers. Primary outpatient providers are more pro-poor in both the public and private sectors than secondary and tertiary outpatient providers. Tertiary outpatient care is the most pro-rich both in the public and private sectors (Figure 3.3).

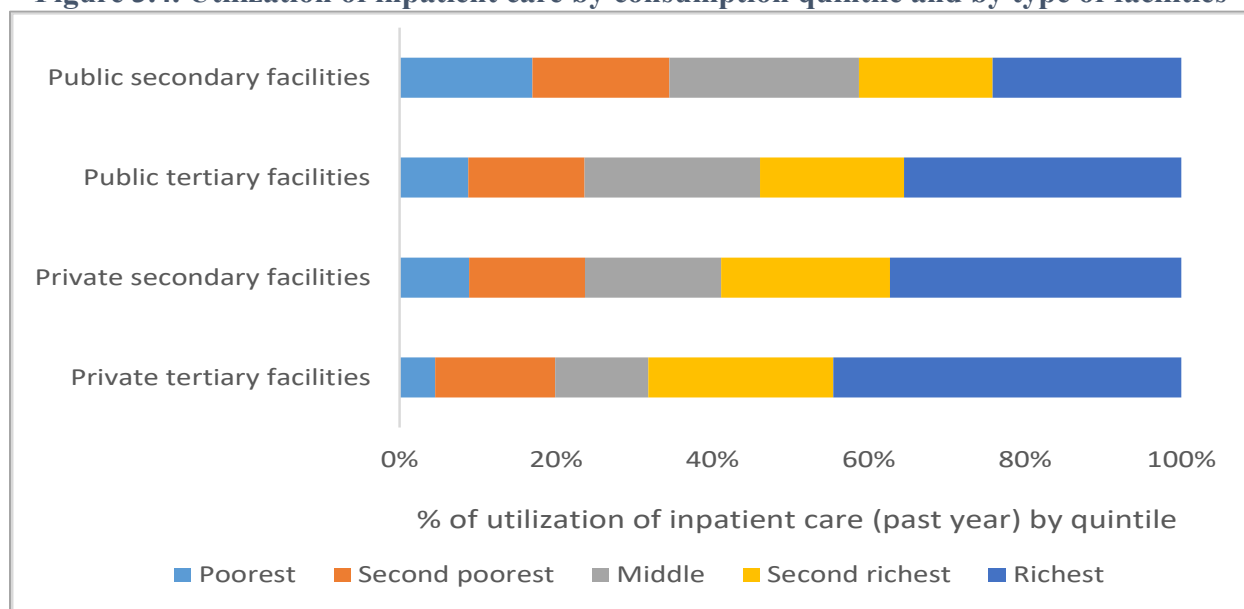
Figure 3.3. Utilization of outpatient care by consumption quintiles and type of provider



Source: Authors' estimation from Household Income and Expenditure Survey (HIES) 2016.

33. Inpatient care at both public as well as private facilities (including for-profits and NGOs) are pro-rich. Secondary inpatient facilities in the public sector are more pro-poor than public tertiary facilities. Interestingly, the utilization pattern of inpatient care from public tertiary and private secondary facilities is similar (Figure 3.4).

Figure 3.4. Utilization of inpatient care by consumption quintile and by type of facilities



34. Source: Authors' estimation from Household Income and Expenditure Survey (HIES) 2016.

35. The top three reasons for choosing a provider include proximity, perceived quality, and affordability (Table 3.2). It is not surprising that people use pharmacies/drug shops as the first point of contact since pharmacies/drug shops are nearby and remain open when other providers are not available. The fourth reason is the presence of a 'doctor'. Many positions in public facilities remain vacant (Modol 2016), and absenteeism of health providers in public facilities (Chaudhury et al. 2006; Gruen et al. 2002; Rannan-Eliya et al. 2012) is a major problem, particularly in rural areas. In addition, many facilities lack adequate drugs and supplies (Kasonde et al. 2017), and this compels the patients of public facilities to purchase medicines and supplies from private pharmacies. Purchasing medicine from pharmacies along with informal payments (Killingsworth et al. 1999; Rannan-Eliya et al. 2012; TIB 2010) make care at public facilities from 'almost free' to less affordable or unaffordable. The socioeconomic status and educational status of household members are two important determinants of private health care use (NIPORT 2016b).

Table 3.2. Reasons for choosing a provider, HIES 2016

Reasons for selecting a provider	Response (%)
Nearby	37%
Quality of treatment	22%
Acceptable cost	22%
Availability of doctor	11%
Referred by relatives/friends	2%

Reasons for selecting a provider	Response (%)
Reputation	2%
Availability of equipment	1%
Availability of female doctor	1%
Referred by another provider	1%
Other (specify)	0.2%
Total respondents	29,346,378

Source: Authors' estimation from Household Income and Expenditure Survey (HIES) 2016.

4. How Did Pluralism Succeed in Bangladesh?

36. The health service delivery system in Bangladesh is highly pluralistic, and this pluralism is thought to have contributed to Bangladesh's successes in improving health outcomes (Ahmed et al. 2013). A highly pluralistic health system environment allowed multiple actors and agents to function under complex management arrangements. Many LICs with higher levels of health expenditures have not been able to achieve the rapid improvements in health outcomes seen in Bangladesh. Given the unusually low government expenditure in Bangladesh, the improvements in outcomes had to rely on turning what could have been a weak and fragmented health system into a system of successful pluralism—a successful combination of public, private, and NGO services and efforts. The beginnings of institutional pluralism, social mobilization, and empowerment of women took place after the 1971 independence war. This section provides insights on how pluralism has made a difference.

Prioritization and ESP

37. While the Government has spent comparatively little, it has spent comparatively well. Initially, prioritization came in the form of the implementation of cost-effective vertical programs supported at the time by the development community. The country in its development planning has prioritized a focus on making prioritized essential health services available and accessible to all its citizens for the last three decades. The initial emphasis was on growth monitoring, oral rehydration therapy, breast feeding, immunization, female education, family spacing, and food supplements (GOBI-FFF) program; Health for All; PHC; and ESP. The ESP attempts to prioritize effective health services to every citizen of Bangladesh (Ensor et al. 2002). Local NGOs were involved in spreading knowledge about the GOBI-FFF program activities directly to the village level. In the late 1990s, there was a concerted effort to consolidate these vertical programs into a unified program delivering an ESP. Good prioritization took place during the pre-1990s, and a successful process of integration became highly prioritized later.

38. Government health facilities are supposed to provide most services free of charge. Free key commodities for prioritized programs such as drugs, medical supplies, contraceptives, and vaccines in public health facilities make the Government's health sector program stronger. NGOs also receive vaccines from the Government. At the same time, it is common for patients to have to purchase drugs and medical supplies from outside, when inputs in the facilities are inadequate.

39. The ESP was first introduced by the GOB in 1998 as part of its SWAp. The development of the ESP has been a participatory process with contributions from the Government and DPs at various points during its design and has been revised several times since its inception (Ahsan et al. 2016). The MOHFW intended to use the ESP for three complementary purposes: to ensure people's right to health in accessing the most essential health services, to use ESP as a basis to define the set of standards by type of health facility, and to promote equity and increase efficiency. The strategy for implementing the ESP focuses on activities to improve equity of access for

specific populations including women, adolescents, the indigent, and rural populations (MOHFW 2016a). Services listed in the ESP (both outpatient and inpatient) are focused on ‘high impact’ priority health services and inputs and have been structured in five core, one complementary, and three support services (MOHFW 2016a). Table 4.1 presents the core services that are covered by the ESP, which has evolved over time—today, its core services consist of maternal, neonatal, child, and adolescent health care; FP; nutrition; and communicable diseases and more recently NCDs. A significant change of recent years has been a change of focus for health promotion and prevention from home-based services provided by community health agents to clinic-based services provided by health professionals.

Table 4.1. Core services covered by the ESP

Core services	<ul style="list-style-type: none"> • Maternal, neonatal, child, and adolescent health care • FP • Nutrition • Communicable diseases • NCDs
Complementary services	<ul style="list-style-type: none"> • Management of other common conditions (eye care, dental care, and others)
Support services	<ul style="list-style-type: none"> • Laboratory • Radiology and other image tools • Pharmacy

40. To achieve equity and efficiency in resource distribution, the ESP was designed to allocate 60–65 percent of the total health care resources to the primary level (subdistrict and below) (WHO 2015). The MOHFW spending on the ESP is financed from both the nondevelopment (operating) budget and development budget. Table 4.2 shows that the maximum allocation was 53 percent in 2007. Figure 4.1 shows the share of the ESP in total. The MOHFW spending has declined from 48 percent in 2006 to 38 percent in 2015. The share during the decade between 2006 and 2015 was much lower than the target, thereby widening the gap between the target and actual achievement. However, the share of the nondevelopment budget in ESP spending has increased from 56 percent to 72 percent during the same period.

41. The Government made significant investment in health care infrastructure. In recent years, the Government has established a number of new general and specialized hospitals, hired 6,000 new doctors and 15,000 new nurses, and established high-cost facilities such as dialysis facilities that are now operating in several locations (DGHS 2017). Facing such a build-up of the hospital sector, it is hardly surprising that the Government is reducing the share of its expenditure going to ESP/community-level care.

Table 4.2. Trends in MOHFW spending on ESP, 2006–2015 (BDT, millions)

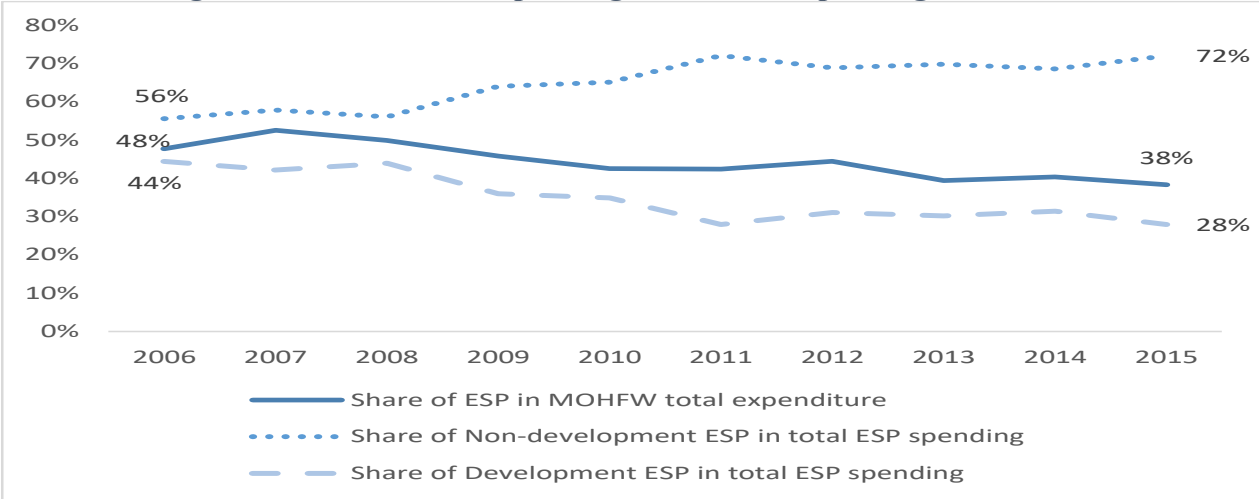
	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
ESP nondevelopment	9,756	11,867	11,895	13,904	16,021	20,243	21,142	21,609	24,255	26,478
ESP development	7,788	8,660	9,316	7,809	8,571	7,847	9,540	9,345	11,100	10,275
Total ESP	17,544	20,527	21,211	21,713	24,591	28,090	30,682	30,954	35,355	36,753

	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
ESP nondevelopment	56%	58%	56%	64%	65%	72%	69%	70%	69%	72%
ESP development	44%	42%	44%	36%	35%	28%	31%	30%	31%	28%
MOHFW total	36,752	39,028	42,482	47,420	57,803	66,251	69,065	78,506	87,570	95,878
ESP as % of MOHFW total	48%	53%	50%	46%	43%	42%	44%	39%	40%	38%

Source: Authors’ estimation from MOHFW 2018.

Note: The following assumptions are considered while estimating the ESP expenditure: (a) the ESP is delivered through DGHS health facilities from *upazila* and below; (b) the ESP is delivered through DGFP hospitals and dispensaries; (c) 40 percent of DGFP hospitals and dispensaries spending is at *upazila* level and considered as ESP related; and (d) Community-based Health Care (CBHC), Essential Service Delivery (ESD), Maternal, Neonatal, Child, and Adolescent Health (MNCAH), Maternal, Child, Reproductive, and Adolescent Health (MCRAH), Family Planning Field Service Delivery (FPFSD), Clinical Contraception Services Delivery (CCSD), communicable diseases control (CDC), and TB-related Operational Plans (OPs) are considered as ESP-related OPs.

Figure 4.1. Share of ESP spending in MOHFW spending, 2006–2015



Source: Authors’ estimation from MOHFW 2018.

42. A recent costing of Bangladesh’s ESP at the subdistrict level estimated current per capita expenditure at US\$2.90 in rural areas and an average of US\$1.32 in urban settings (MOHFW 2016b). The resources needed for the delivery of a revised package under the Government’s fourth sector program is projected to range between US\$6.6 and US\$8.50 per capita (MOHFW 2016b). While it is a big jump in resource allocation, this figure is modest compared to international estimates of US\$44–80 per capita required to deliver a basic package of health services (WHO 2001). The main drivers of health expenditure are personnel and drugs, and therefore, modifying the assumptions used in the calculations with regard to these two economic components may result in a reduction of the projected cost per capita and remain within the MOHFW’s mandate and expectations (MOHFW 2016b).

43. Governance, HR, and supply systems regarding the ESP are not functionally fully integrated. The DGHS and the DGFP are each responsible for providing ESP services through their respective health facilities. The implementation arrangements of the ESP through the two directorates are leading to fragmented governance, HR, and supply systems. The UHFWCs and CCs still lack adequate drugs and other medical aids because centralized procurement of logistics results in delays (WHO 2015). In addition to the uneven distribution of staff, many sanctioned posts are vacant. A feasibility study on the ESP found that only 22 percent of general practitioners' positions sanctioned at union-level facilities were actually filled, and less than 60 percent of all doctors (general practitioners and consultants) deployed at the UzHCs were actually working in their posts (Modol 2016). The union-level facilities are worse off, where only paramedics and field supervisors seem to fulfil above 50 percent of the positions (Modol 2016).

Bangladesh Health SWAp

44. Following the independence of Bangladesh in 1971 and before the launching of the first SWAp to health in 1998, the MOHFW managed common priority health interventions such as nutrition services, maternal and child health, and TB control as vertical programs. There were more than 150 programs/projects with individual Project Implementation Units in the MOHFW. These health interventions were commonly funded directly by DPs. Sometimes, these programs used the public facilities and NGOs to deliver services to the population, resulting in inefficiencies and overlapping initiatives due to lack of coordination. On realization that the existing health system was not suited to deliver cost-effective and integrated health services, the MOHFW envisaged that a SWAp would meet the identified challenges in three ways: (a) improved coverage of essential health and FP services would be assured through technical support and coordinated financing, (b) service delivery would be more cost-effective by leveraging sector reforms, and (c) involvement of NGOs and the private sector in service delivery would be promoted (Arifeen et al. 2013; World Bank 1998).

45. Bangladesh's health SWAp is the oldest and largest SWAp in the health, nutrition, and population (HNP) **sector**. Consequently, as the MOHFW embarked on a sector-wide development program, Bangladesh underwent some massive reforms in the late 1990s, including a number of institutional and governance reforms that commenced with the Health and Population Sector Strategy, developed by the Government and DPs. These reforms were intended to promote greater equity and efficiency in resource use. The MOHFW under the SWAp has been implementing a series of five-year strategies to improve population health and strengthen health systems. The first SWAp, known as the 'Health and Population Sector Programme (HPSP)' (1998–2003), was prepared jointly by the GOB and the DPs with full ownership and leadership of the Government. The HPSP was initiated in 1998 and replaced 128 discrete projects in the MOHFW. The DPs' funding was through pooled and bilateral funding. The HPSP emphasizes the importance of delivering a package of high quality of ESP to rural communities from static CCs. The HPSP introduced a transition from a project approach to a SWAp of management through which all health sector projects were planned and managed in an integrated manner instead of as vertical

initiatives (WHO 2015). The second SWAp, titled as ‘Health, Nutrition, and Population Sector Programme (HNPSPP)’ was implemented during 2003–11. The Government, led by a new political regime, abandoned the CC program and reversed the unification of services and structure belonging to the DGHS and DGFP as well as some other reform initiatives like hospital autonomy introduced during the HPSP. In 2011, the MOHFW adopted the third SWAp, titled the ‘Health, Population and Nutrition Sector Development Programme (HPNSDP)’ (2011–16). The CCs were reintroduced in 2009 as a priority project and were later mainstreamed into the SWAp Program in 2014. The fourth SWAp, the 4th Health, Population and Nutrition Sector Programme (HPNSP), covers the period January 2017 through June 2022. The 4th HPNSP is guided by Bangladesh’s Vision 2021, which acknowledges that improved health is a necessary and critical condition for the achievement of this vision. Figure 4.2 explains that the GOB’s financial support to SWAp has increased over the last 19 years while the financial support from DPs has been decreased.

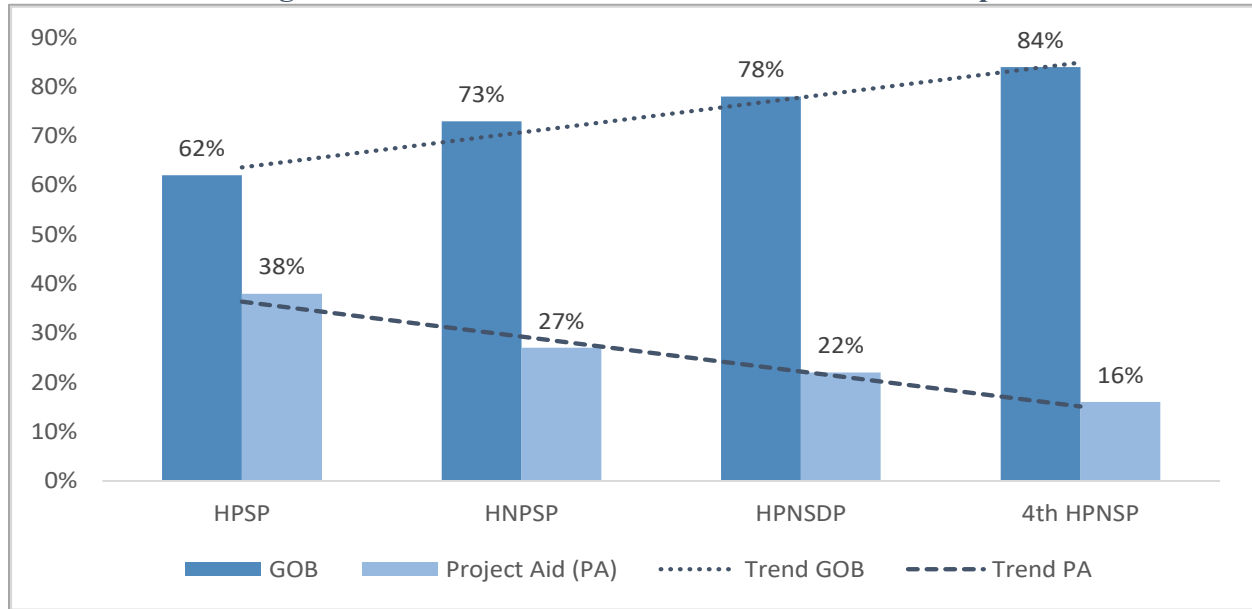
Table 4.3. Names of HNP sector programs with duration and total cost

Program name	Duration	Total cost
HPSP	1998–2003	US\$2.2 billion
HNPSPP	2003–2011	US\$5.4 billion
HPNSDP	2011–2016	US\$8.0 billion
HPNSP	2017–2022	US\$14.8 billion

46. Unlike other sectors, the SWAp in the HNP sector is unique in the GOB’s planning process. The GOB and DP officials are closely involved in the planning and implementation process of the MOHFW for HNP sector development. There are regular follow-ups and monitoring through task groups that meet every quarter. The arrangements include single reporting, unified results framework, single financial report covering all sources of funding, and policy dialogue at the highest level of the GOB. The Government agreed to an annual program review focused on program implementation and actual expenditures.

47. The Bangladesh SWAp is providing several added advantages in the implementation of the HNP sector programs (Ahsan et al. 2016). These include reducing transaction costs through the elimination of Project Implementation Units, strengthening the MOHFW’s role in sector coordination and management over time, shaping government policy and strengthening its implementation, making the MOHFW become more accountable to the MOF, providing budget support through the MOF helping the Government to play a stronger leadership role; providing more predictability in DP funding; adopting one harmonized plan; strengthening the stewardship and management role, including fiduciary oversight, and increasing efficiency in resource utilization and service delivery.

Figure 4.2. The GOB and DPs' share in the four SWAp



Source: Planning Wing, MOHFW

48. The Bangladesh SWAp has achieved noteworthy achievements, 20 years from its launch. It introduced the ESP at different levels of the health system, successfully revitalized CCs, and adapted the approach in a complex administrative structure. The SWAp played a key role in making significant progress in health outcomes and health system strengthening. It has also aligned technical support and funding around national health priorities. The Government’s role was improved in program design as well as in implementation and working relationships with the DPs. The DP financing is rationalized, simplified, aligned, and flexible mainly through the establishment of a large ‘pooled fund’.

49. The Bangladesh SWAp still faces some important challenges in its efforts to align public and DP financing for health care. These include the exclusion of some important areas of health care that are managed by agencies that operate outside the SWAp; perhaps the most surprising example is that all primary urban health is managed in Bangladesh by a different ministry. In addition, the MOHFW continues to implement several projects and activities outside of the SWAp, and as mentioned above, the fraction of the budget assigned to the ESP (the focus of the SWAp) is rapidly falling.

CHWs and Engagement with NGOs

50. Owing to the ‘pluralistic’ nature of the health system in Bangladesh, NGOs and CHWs are thought to have contributed greatly to its successes in improving the health outcomes in the country. The achievements (Arifeen et al. 2013) in health service delivery have been attributed to three distinctive features: (a) application and adaptation of community-based approaches and

CHWs, both by the Government and NGOs, at scale, especially the door-to-door delivery approach; (b) partnerships between the Government and NGOs; and (c) early and rapid adoption of innovations. The success is further attributed to increasing gender equity, the empowerment of women, and the extent of the reach of NGOs (Sarwar 2015).

51. It is noteworthy to mention that the participation of CHWs in the provision of PHC since the early 1970s has contributed largely to impressive gains in health service delivery across Bangladesh. The participation of CHWs was quite a successful strategy introduced by the Government and NGOs. ‘Revitalization of Community Health Care Initiatives’ is the government community health system. The Government mainly has three different types of CHWs, and these include Family Welfare Assistant (FWA), Health Assistant (HA), and Community Health Care Provider (CHCP). The Government engaged trained FWAs in the delivery of FP services to the clients beginning in 1976. The deployment of HAs and CHCPs was started in 1995 and 2010, respectively. The Government had about 52,826 CHWs (23,500 FWAs, 15,420 HAs, and 13,906 CHCPs) (DGHS 2018). The strong presence of NGOs in Bangladesh, and their willingness to experiment, has been a driving force particularly for community mobilization and has resulted in high investments in CHWs (Sarwar 2015). Among the NGOs, Building Resources Across Communities (BRAC) is implementing the Shasthya Shebikas (SS) community health program, the largest community health program (the SS program) nationwide. The SS program is a community health system parallel to the MOHFW’s Revitalization of Community Health Care Initiatives in Bangladesh (Advancing Partners & Communities 2013). This program is rooted in a gender-based perspective, focusing on the need for female health workers in Bangladesh to address sociocultural barriers to access to health care services. At present, there are approximately 60,000 SSs. There are no latest data on CHWs employed by other NGOs. Arifeen et al. (2013) reported that the other NGOs engaged 57,680 CHWs. The majority of the health services provided by the government CHWs at the community level take place out of CCs. Clients travel and seek the needed services from CCs. The government CHWs conduct home visits in addition to providing care at the CCs. The NGO CHWs including SSs deliver services door to door. Table 4.4 presents key functions of the government and NGO CHWs. All government CHWs are linked to the health system as they are employees of the MOHFW, and the NGO CHWs refer clients to the public health facilities.

Table 4.4. Key functions of government and NGO CHWs

Government CHWs (FWA, HA, and CHCP)	NGO CHWs
Health education for nutrition and FP	Health promotion and education for water, sanitation and hygiene, nutrition, FP, pregnancy-related care, and immunizations
Health promotion and treatment of minor ailments	Diagnosis and treatment of common ailments, TB, acute respiratory infection, and malaria
First aid	Sale of drugs and health commodities
Child health services including treatment of illnesses, vaccinations, and distribution of vitamin A	Provision of essential newborn care
Identification of emergency and complicated cases for referral	Referral to government facilities

Government CHWs (FWA, HA, and CHCP)	NGO CHWs
Maternal health services including ANC and PNC, normal delivery, and community registration of births and deaths	NGOs sometimes determine the functions of CHWs considering program and geographic region

Source: *Advancing Partners & Communities 2013*.

52. The Government and NGOs have different policies and organizational and management structures with CHWs in terms of their tasks, incentive systems, and management and supervisory mechanisms. There is no CHW-specific policy in Bangladesh. A CHW policy could influence CHW performance. The CBHC OP (2017–2022) of the 4th HPNSP provides the overall policy and implementation guidelines for all government CHWs, and NGOs including BRAC have their own policies for their recruited CHWs. These policies provide information on the geographic scope of services and regarding what services can and cannot be offered. The government CHW activities are financed through the MOHFW’s budget. BRAC and other NGOs generate resources from DPs, social marketing funds, and self-financing through commercial enterprises.

53. Despite the Government’s and NGOs’ efforts to increase the number of CHWs, their recruitment, deployment, and retention of CHWs has been a major challenge. The other key challenges include the provision of basic training and ensuring of routine supervision. Some NGOs face a shortage of financial resources. Incentive systems are also crucial for the effectiveness and sustainability of CHW programs (Arifeen et al. 2013). Financial incentives have not been effectively incorporated as a strategy to sustain CHWs in Bangladesh.

54. NGOs provide mostly not-for-profit preventive and PHC services to the underserved population. NGO health service providers provide nutritional supplements for pregnant women and young children and promote exclusive breastfeeding for infants during the first six months of life. High-quality family planning, MNCAH, and nutrition services remain limited in Bangladesh, particularly among poor people in rural areas, as well as overcrowded urban areas. To supplement the Government’s initiatives in providing PHC services, a number of NGOs (BRAC, Cooperative for Assistance and Relief Everywhere [CARE] Bangladesh, and Save the Children) also provide hospital or community-based services or both. BRAC, CARE Bangladesh, United States Agency for International Development (USAID) funded NGOs, and other national NGOs adopted community-based innovative strategies in implementing ORT, FP, and immunization programs.

55. Bangladesh has a dense and sophisticated network of NGOs that are engaged in diverse activities related to health and FP. More than 4,000 NGOs including national and international were active in the health sector of Bangladesh (NIPORT 2016a). NGOs are making these services available in their clinics throughout the country. A USAID-funded network of about 25 NGOs is serving around 25 million population that accounts for nearly 16 percent of the total population of Bangladesh. BRAC’s Essential Health Care program, which was initiated in 1991, has played an important role in improving access to ESP services through delivering community care and organizing a bridging network with the public health care system. Many other NGO networks, including Gonoshasthaya Kendra, Grameen Bank, Marie Stopes, and CARE Bangladesh, have

contributed to revolutionizing the PHC approach in Bangladesh, reaching millions with low-cost basic promotive, preventive, and curative services.

56. In Bangladesh, collaboration between the Government and NGOs, which increased in the 1970s and 1980s on national programs such as TB, maternal and child health, FP, expanded program on immunization (EPI), leprosy elimination, and nutrition programs, has been tremendously efficient and effective. The Government and NGOs worked together to increase awareness and to provide health and FP services. The Government has deliberately made this effort to ensure increased coverage of services and to manage its own limitations in the delivery of health services to a growing population. From informal collaboration to contractual agreements and complementary partnerships in which the Government and NGOs work together in complementary roles, the partnerships have taken on various forms (Arifeen et al. 2013). Among the many outstanding examples of successful Government-NGO collaboration are CARE Bangladesh's Reproductive Health Project, BRAC's Health and Development Programs, and the Leprosy Control Programs (Zafarullah et al. 2006). The Urban Primary Health Care Service Delivery Project, introduced in 1998, is a government-run initiative that involves PPPs with national NGOs to improve the health status of the poor in urban areas by providing high-impact ESP services through comprehensive reproductive health care centers, PHC centers, and satellite clinics. The program currently serves 10 million people, including a substantial portion of the urban poor (MOLGRD&C 2019).

57. NGOs being a welfare organization have to maintain a high standard of quality in service. NGOs train CHWs and clinic staff to help them provide high-quality care during PHC and FP services. They are well equipped with training and information management systems. NGOs have standard precaution items for infection control. However, all NGO clinics are not able to maintain standard quality of care (NIPORT 2016a) as they require additional technical and funding support to maintain that. Drugs and skills for long-acting and permanent FP methods are not always available at all NGO clinics. Sometimes, NGOs share costs and inputs among their different programs for financial sustainability. They are cross-subsidizing the resource gap from their other programs' income. This leads to deterioration in the quality of health services.

58. Most of the NGOs rely on funds received from foreign sources such as DPs, international NGOs, international private sector foundations, and multinational organizations and also from the Government through ministries. DPs finance NGO health services, either by directly providing funds to NGOs or through the MOHFW or the MOLGRD&C. NGOs are receiving funds from the abovementioned sources to provide health services, especially for target groups such as poor and vulnerable populations, mostly free of cost or at nominal fees. They are allowed to recover costs through charging pre-agreed user fees for services. However, according to their agreement with the funding agencies, a certain proportion of their services has to be provided free of cost to the extremely poor (WHO 2015).

59. The focus on women health workers, door-to-door community-based approach, and partnerships of the Government and NGOs initially emerged in response to the major shortage of

health workers. As is often the case in postwar situations, Bangladesh is witnessing a slow transformation of its delivery system. At the community level, the Government has been successful at creating a new network of more than 13,000 CCs and an addition of 3,000 vacancies for midwives; recent studies show these CCs are now providing a significant volume of services (MOHFW 2019; WHO 2019).

60. Bangladesh provides a favorable and conducive enabling environment for research. National, non-profit, and international research institutes in Bangladesh have world-class research capacity to experiment with innovations in the health sector (Das and Horton 2013). These institutes conduct large-scale applied and operational research studies at the community, public, and NGO health facilities. The research findings help the Government and NGOs improve design, successfully implement, effectively monitor, and evaluate programs. Evidence generated from the research studies has also helped scale up effective health innovations (Chowdhury et al. 2013).

The Private Sector and the Domestic Pharmaceutical Industry

61. Bangladesh meets 97 percent of the domestic demand with high-quality, low-cost medicines manufactured locally. The remaining 3 percent of the market, which is made up of imported products, comprises mainly high-value products such as vaccines, biopharmaceuticals, and innovative cancer drugs. Pharmaceutical industries in Bangladesh have grown to a global standard with the supportive role of the Government (DGHS 2017). These industries made success possible by providing inexpensive pharmaceuticals through private markets. Widespread availability of medicines in private pharmacies and formal and informal drug outlets highlights the relatively strong performance of the private sector supply chains versus the public sector, again leading to OOPE for basic essential medicines (Kasonde et al. 2017).

62. One of the reasons for the success of Bangladesh despite its low public health expenditure is the presence of a growing local pharmaceutical sector with large numbers of manufacturing and retailing companies, leading to competitive pricing and relatively good quality of drugs. The domestic industry meets 97 percent of the local demand and can be considered self-sufficient. Bangladesh is exporting pharmaceuticals to more than 125 countries. The pharmaceutical sector is the second-largest contributor to the government exchequer after the ready-made garment industry (Faroque 2011). It also contributes to increased access to essential medicines.

63. Some local manufacturers produce pharmaceuticals of world-class standards, while others have thrived with low-quality drugs. A drug quality and information program implemented by the United States Pharmacopeia Convention noted that 69 percent of paracetamol tablets and 80 percent of ampicillin capsules produced by minor companies were of substandard quality (World Bank 2017b). Major issues in quality assurance and regulations have stemmed from weak governance. In the history of Bangladesh's pharmaceutical sector, the Drug Ordinance of 1982, considered a major landmark, played a significant role in boosting the local industry. The policy's objective was to make the pharmaceutical sector self-reliant in providing patients with essential

drugs that are both affordable and of good quality. The Drug Policy managed to achieve almost all its declared objectives. A new revised Drug Policy was formulated later due to the changed socioeconomic scenario and global pharmaceutical demand perspectives. Consequently, the GOB approved the National Drug Policy in 2005. The Directorate General of Drug Administration (DGDA) is the supreme regulatory authority in Bangladesh for drug-related affairs such as licensing, production, import, export, quality control, and pricing. The National Drug Policy (2005) clearly acknowledges the need to strengthen overall governance, but implementation of laws has been difficult because of the huge size of the industry and limited capacity of the DGDA. Additionally, the domestic companies continue to dominate the market because of difficulty in importing drugs.

64. In Bangladesh, pharmacies are often the first and only source of health care outside the home for a majority of patients, with more than 80 percent of the population seeking care from untrained or poorly trained ‘village doctors’ and drug vendors located at unregistered drug retail outlets (Ahmed et al. 2017). The widespread availability of ‘over the counter’ medicines in both formal and informal drug stores, as well as limited opening hours of health facilities, reflects a strong dependence on the pharmaceutical sector and a high level of self-treatment and self-medication. The number of physicians in Bangladesh is also low relative to international standards, and there are more licensed pharmacies in the country than physicians. According to a baseline assessment of a sample of drug stores in Bangladesh (SIAPS 2015), about 70 percent of clients were self-referral without prescriptions; 59 percent of patients were treated based on the symptoms; 83 percent were given medicines on request; and 60 percent received unauthorized services, such as wound dressing. The practice of administering drugs through injections was 60 percent (SIAPS 2015).

65. The 2014 BDHS (NIPORT 2016b) shows that for the Bangladeshi population, drug retail shops are often the first point of entry into the health system. According to the BDHS, among children diagnosed with acute respiratory infection, 42 percent received advice or treatment from a health facility or provider, 26 percent from a pharmacy, and 25 percent from a traditional doctor (NIPORT 2016b). The same survey showed that 36 percent of children under age 5 with diarrhea were taken to a health facility or provider for treatment, while 77 percent were given ORT from commercially available sources. The strong presence of traditional health workers and CHWs in rural areas in Bangladesh reflects the tradition of village-based care systems, the growth of informal markets, and the inadequate numbers and incentives for more formally trained workers in the country. While not exempt of problems, the existence of village doctors and informal drug vendors gives the population extensive access to inexpensive drugs. This is one of the ingredients of the low cost in the ‘good health at low cost’ characterization of Bangladesh.

66. Pharmaceuticals are an extremely important component of health care expenditures in Bangladesh. The pharmaceutical product has consistently been the largest line item among the functional expenditure in Bangladesh’s THE (MOHFW 2018). The major share of THE in 2015 was spent on drug retail services (43 percent). According to the latest National Health Accounts, 67 percent of THE was OOPE in 2015. Given the structure of the retailing industry, the cost of

drugs often includes the cost of the consultations. While the cost of drugs may be relatively low compared with similar countries with smaller or less-competitive industries, the joint cost of drugs and consultation absorb a large part of the OOPE (64 percent).

67. Public health facilities generally provide medicines to patients for free, but the availability of medicines in public facilities is poor. Patients bypass PHC facilities due to unavailability of drugs. Irrational use of drugs such as overprescribing, multi-drug prescribing, use of unnecessary expensive drugs, and overuse of antibiotics and injections is prevalent (Guyon et al. 1994; Islam 1999). As such, when medicines are out of stock in public facilities, patients are forced to buy medicines which encourages the widespread availability of private pharmacies. Licensed pharmacies and unlicensed drug stores sell all types of drugs without prescriptions. These lead to out-of-pocket payments for basic essential medicines. Another, perhaps even greater, challenge relates to the quality of the advice obtained from untrained drug retailers and village doctors and with the existence of some low-quality drugs in the market.

68. Medicines for NCDs are the least affordable if they are bought from the private sector due to long treatment regimens and multi-morbidity of NCDs (World Bank 2017b). This was found based on calculations of affordability. For example, the monthly cost of medicines for hypertension, diabetes, and hypercholesterolemia can each consume between 1–2 days of monthly wages for a typical public sector employee. This means that those with comorbid chronic conditions would have to pay up to 5 days' wages a month, or approximately 25 percent of total gross earnings, toward medicines. Additionally, certain medicines like metformin, omeprazole, and atorvastatin for common NCDs are substantially more expensive in Bangladesh than in other countries in the region. Even for common conditions, progression to catastrophic expenditure, defined as 40 percent of non-subsistence income (that is, income available after basic needs are met), is a concern because wealth-based inequity in access to medicines may severely hamper the achievement of UHC in Bangladesh.

69. Until now the main explanations of successful pluralism were the four elements discussed above. These elements may become weaker in the future, and their success will need to rely to a greater extent on health financing, HR, NCD services, decentralization, urban health, and strong health information systems (HISs). Normally, it is expected that future prioritization and future alignment would be results of increased public expenditure. Attempts are being made to find an optimistic future without higher public expenditure. Presently, the Government has initiated improving health services in the underserved regions of Bangladesh. This has included improving the quality of nutrition services for mothers and children, recruiting and posting 2,500 new midwives, and caring for over 100,000 births annually in government health facilities. Presently, the Government is working on several priorities, specifically development and initial implementation of primary-level NCD services and improved inter-ministerial coordination on urban health services. This case report highlights the recent development of the HIS in the pluralistic health system of Bangladesh as an example from the recent government initiatives on several elements of the health system. The assumption here is that the new information systems

could help prioritize and align key health sector issues. Fortunately, Bangladesh is working hard to strengthen its electronic HIS.

HIS in the Pluralistic Health System of Bangladesh

70. Over recent years, Bangladesh has made remarkable progress in modernizing its HIS through large investments and innovations. In 2009, the MOHFW adopted a systematic approach to digitize routine HIS, shifting from paper-based to online data collection, generating interest among stakeholders and DPs and paving the way for innovations in the health sector. The MOHFW, through the DGHS and DGFP, manages a dual system of general health and FP services through its network of primary, secondary, and tertiary level facilities throughout the country. Bangladesh is one of the 30 countries that use the District Health Information System 2 (DHIS2) for its HIS. DHIS2 allows for data to be entered directly by health facilities across the country using online forms. It was introduced to improve public health decision making (GIZ 2014).

71. Since the introduction of DHIS2 in 2009, in a short span of time, the MOHFW has dramatically transformed the way routine health information is collected, stored, and used in Bangladesh, paving the way toward a more harmonized HIS. Bangladesh has emerged as a significant actor in the global DHIS2 community, and it is expected that routine health information reporting in the public sector will be fully paperless (GIZ 2014). The DHIS2 data helps track the country's progress toward the achievement of health-related SDGs and can now be used to monitor the HNP sector program.

72. From Bangladesh's success in adopting a comprehensive and systemic approach to the HIS strengthening, it is evident that it is possible to bring about an orderly, harmonized information environment, even in the absence of an overarching HIS strategy or policy framework. The idea was to modernize the HIS infrastructure through the introduction of a simple, low-cost open source software and to promote more effective use of routine information. This pragmatic and incremental approach, in which each successive element is dictated by an assessment of what is needed and what is possible, has proven to be successful.

5. Key Conclusions

73. Bangladesh has been portrayed in the literature as having a history of success achieving good health at low cost. Public funding and public provision of health care are surprisingly small when compared with other LICs that have succeeded in improving health outcomes for their population. Improved outcomes with a small public sector were achieved based on a health sector characterized by successful pluralism. This case study has shown that success despite small public spending was based on four pillars: (a) strong prioritization of the small public sector spending on cost-effective and well-targeted interventions; (b) effective alignment of public and donor funding; (c) emphasis on a delivery system with an oversized frontline composed of mostly female community agents initially providing home-based care and supported by the Government, donors, and NGOs; and (d) a large and competitive pharmaceutical retail system that made available relatively cheap and relatively good-quality drugs (when compared with LICs from around the world).

74. The key national program is the ESP; the case study describes how the composition of the benefits and the delivery strategy of the ESP have evolved over time. Benefits have expanded, and delivery has shifted from many vertical programs mostly providing services at home to a more integrated system that increases the emphasis on clinic-based delivery. The rapid improvement in health outcomes in Bangladesh was associated with the expansion of the ESP, and Bangladesh is special in that it managed to expand the ESP at very low cost/fiscal cost. The four pillars discussed in the case study aim to explain how the ESP expanded at low cost. The first two pillars (prioritization and alignment) refer to the key characteristics of the financing of the ESP. The second two pillars (CHWs and NGOs and leveraging the domestic pharmaceutical industry) refer to the delivery of the ESP.

75. ‘Strong stewardship’ is sometimes imagined to be the action of a powerful government agency. In Bangladesh, pluralism worked because there were elements of stewardship/coordination between the Government, DPs, and NGOs. The instruments of stewardship included prioritization, alignment of strategy and resources, and cooperation in the community-based delivery system. Collaboration with the pharmaceutical industry probably occurred because of parallel interests (private firms interested in expanding sales and health system agents interested in expanding the use of inexpensive high-priority drugs).

76. These four pillars may not be enough to sustain successful pluralism into the future. The reasons include (a) prioritization of government health expenditures is weaker than before; (b) support from the DPs is less plentiful, and health is a lesser priority for some DPs than in the past; (c) the relative weight of community workers is declining with large investments in secondary and tertiary health facilities and significant recruitment of health workers including midwives and nurses; and (d) there has not been significant improvement in policy and regulation of private retail drug industry to create the platform needed for a private sector-based effort of prevention of the NCD epidemic. On the other hand, there are potentially new sources of successful pluralism. One

example is an increasingly effective HIS allowing continued coordination within the different segments of the health sector.

6. Issues Going Forward

77. Many of these issues identified are not exclusive to Bangladesh. The country has achieved a lot in the health sector but has a lot to do to sustain the achievements. This section discusses some of the issues going forward for the sustainability of achievements.

78. Fiscal space for health is a particularly important health financing policy challenge for Bangladesh because it currently has one of the lowest levels of government health spending in the world measured as a share of GDP, below 1 percent (World Bank 2016). This level of investment will become increasingly at odds with the population's aspirations for services in an emerging middle-income country, as well as with the country's commitment to achieve the SDGs, including the objective of UHC. The revenue base in Bangladesh is small. Moreover, allocation of revenue fund to the health sector is subject to negotiation with other sectors, for example, education. The low government spending translates into inadequate service coverage for key interventions that would improve population health and a high reliance on OOPE. As Bangladesh is in transition from LIC status to middle-income country status, access to development assistance falls and potentially threatens the financial and institutional sustainability of health systems. To improve service coverage and to reduce OOPE, the GOB will need to improve domestic sources for health. The attainment of the SDG of UHC would otherwise be difficult.

79. Greater prioritization of health in the government budget has the potential to be the largest source of fiscal space for health over the medium terms as estimated by a World Bank study (World Bank 2016). According to the study, increasing the budget share of health to 8 percent would increase the MOHFW spending to 1.35 percent of GDP by 2020, and in real terms, it would increase nearly 2.5 times over the baseline (2016) by 2020 (World Bank 2016).

Highly Cost-effective and Well-targeted ESP Implementation

80. The ESP's expected annual cost per citizen is about US\$8.50, an amount that largely exceeds current health spending (US\$2.90) per capita in the country, implying that full implementation of the ESP will require significant additional public financing. Finding the fiscal space necessary to pay for the ESP is, however, only one of several challenges facing policy makers in Bangladesh. Other challenges include HR constraints (especially in rural areas), limited availability of essential medicines, and inequitable allocation of public financing for health among many others. Supply capacity ought to be expanded in accordance to the expected volume of service delivery, which then calls for a large investment. Technical requirements are not enough, and there should be dialogue and high-level influence to get the required resources. The huge gaps in service availability, readiness, governance of HR, and drugs need to be handled within the realities of the country. For the ESP, incremental increases to the budget are needed, and there may be fiscal space for it as the economy is growing. The best use of resources through efficient allocation at the primary level can ensure the continuation of the ESP approach to health care. Reducing the incidence of catastrophic health expenditure and impoverishment should be one of

the key outcomes of the ESP implementation in Bangladesh. There should be less OOPE and more effective and efficient public spending.

81. Successful implementation of the ESP depends on service delivery arrangements and adaptation over time. In Bangladesh, elements of the ESP fell under both the DGHS and DGFP. Therefore, staffing of health facilities and proper monitoring have been challenging. There are successes in implementing community-level basic health interventions (immunizations, oral rehydration, and vitamin A supplementation) but less successes were found at the facility levels. In the case of maternal care, delivery at public health facilities is still a problem due to shortage of skilled human resources. The Bangladesh ESP has been adapted and NCD was included in the package in 2016 acknowledging the high prevalence of NCDs due to demographic and epidemiologic transitions. Drug costs for NCDs are expensive. The inclusion of NCDs in the ESP will have implications from financing perspectives when supplies of drugs for child pneumonia, for example, at the primary-level PHC facilities are not ensured.

Effective Alignment of Public and DPs' Funding

82. The Bangladesh health SWAp is enabling the provision of health services at scale and helping achieve the majority of the health goals and outcomes. The current SWAp excludes urban health, NGOs, and the private sector. The MOHFW implements projects outside of the SWAp, diverting resources. More budget is required for the implementation of the HNP sector program under the SWAp. Urban primary health services, malnutrition, emerging and reemerging diseases, and the double burden of communicable diseases and NCDs increase the budget necessity. Effective alignment of public and DPs' funding is vital if successes in the Bangladesh health sector are to be sustained.

83. There are opportunities to improve the functioning modality of the SWAp in the Bangladesh health sector. One of the key opportunities includes the implementation of realistic operation plans through government leadership which are based on effective monitoring and productive policy dialogue. The government policy in the sector needs to be linked to the financial resources available. The SWAp needs to take an explicit long-term view of the development of future resources for health services in Bangladesh. The Bangladesh health SWAp should clarify its sector financing architecture and strengthen its policy dialogue on domestic resource mobilization to address the financial gap. Inclusion of urban health and the private sector under the SWAp modality will strengthen the MOHFW's stewardship role (Ahsan et al. 2016). The MOHFW will need to strengthen its management role including fiduciary oversight. The SWAp can encourage the private sector and community participation for increased financing and service delivery. The partners of the SWAp need to ensure that their focus remains on the core SWAp principles and values.

Emphasis on CHWs and NGOs

84. CHWs and NGOs are essential elements for the sustainability, effectiveness, and optimal use of health services, particularly among the poor and underserved population in Bangladesh.

CHWs and NGOs require human, technical, and financial resources for the expansion of access to health services. The Government has clear roles as policy maker, regulator, and implementer to mobilize CHWs and NGOs. Retention of CHWs for the sustainable community health services is challenging. Provision of incentives and basic training could create an empowering environment for the effectiveness and sustainability of CHWs in the provision of health services at the community level (Arifeen et al. 2013). Training, support, supervision, and sustainability of CHWs depend on the institutions they are working for. Therefore, institutional strengthening is a key task for the retention and sustainability of CHWs. CHWs should be considered as a viable solution and an essential component of the Bangladesh health system. There is a shortage of health workers in hard-to-reach and poor regions of the country. Additional CHWs could address this gap.

85. NGOs are facing many problems and difficulties which differ from organization to organization and region to region although they have notable success in the health sector. Many NGOs in Bangladesh are suffering from a shortage of funds. DPs and international NGOs are reducing their support to the health sector as they are considering other priority sectors such as education and climate change. NGOs need funds to sustain and expand community health services.

86. The role of NGOs and the private sector in the delivery of urban health should be further developed and formalized through PPPs to support the diversification of health service delivery strategies. A variety of programs supported by DPs provide considerable experience on collaboration with NGOs to improve urban HNP services. Options could range from NGO support to government services to stand-alone NGO-delivered services. Similarly, there is some experience with leveraging private for-profit services. These could range from contracting individual staff to fill gaps to supporting and ensuring quality of services provided by groups of providers such as private doctors and pharmacies. The Government may choose to involve NGOs or private providers at a small scale to fill gaps and gain experience with this type of strategy.

Interoperable Electronic HIS

87. The HIS development, especially DHIS2 as the national HIS platform, in Bangladesh is remarkable. Yet, the achievements have not been systemized. Sustainability of DHIS2 needs better coordination, partnerships, and collaboration among ministries (MOHFW and MOLGRD&C) to avoid potential fragmentation and improve ESP-related data availability, quality, and use for a better programmatic approach and policy making. Urban health information is rarely shared with the national-level DHIS2. All health care providers, especially NGOs working in urban areas, should integrate their data into the DHIS2. The key to sustain DHIS2 in Bangladesh relies on building local capacity, allocating budget for management and maintenance, and ensuring smooth integration into different health programs.

88. Personnel at all levels of the health system need to develop skills to analyze and use data for decision making. Building skills at a decentralized level should involve facility managers and frontline health workers. Once these facility managers and frontline workers develop skills, they will be able to assess the availability, accessibility, utilization, and coverage of key services in

their areas and identify gaps and resource constraints. The HIS provides a wealth of information but is not yet used for planning and provider performance assessment purposes.

Strengthening Urban PHC Services

89. The health and nutrition policies and programs of Bangladesh have focused mainly on the provision of rural health services in the last two decades. By 2050, the urban population is projected to account for more than half of Bangladesh's total population. Equitable access of the urban population, particularly the urban poor, to quality health services is a major health system challenge for Bangladesh. The country's achievements in the health sector could be undermined if urban PHC issues are not addressed properly. Urban health challenges include fragmentation of responsibilities between the MOHFW and MOLGRD&C, limited access to PHC services, and poor financial protection (as the urban population has to pay from OOPE for private sector health services). Improving equity within urban populations is needed, as HNP indicators show important disparities while there are considerable gaps in geographic access to HNP services.

90. The Government's Seventh Five-Year Plan and urban health strategy emphasized the need for strengthening coordination and governance functions between the two ministries to address these gaps. Functional roles and responsibilities at different levels to improve coordination and governance between the ministries, as well as the two directorates under the MOHFW, need to be clarified. It is necessary to build on the experience of existing efforts to improve urban health services involving the MOHFW and MOLGRD&C, with the support from various DPs.

Significant Improvement in Regulation of the Pharmaceutical Sector

91. Progress has been made in the pharmaceutical sector in providing affordable drugs. In Bangladesh, financial coverage of patients and price regulation remain key challenges. Less capacity in terms of a severe manpower shortage in the drug regulatory authority (DGDA) makes it difficult for all regulatory functions to be adequately undertaken. This is extremely serious in Bangladesh, with a very large pharmaceutical sector. Expired, counterfeit, and low-quality drugs are flooded in the market due to weaknesses of regulation by the DGDA. Full implementation of the DGDA Strategic Plan 2017–2021 is expected to improve effective regulatory processes in areas such as licensing, production, quality control, and pricing. More coordination between the DGDA officials and other stakeholders can help effectively implement regulations and make high-quality essential drugs available at the health facilities.

92. In practice, the Government has not developed the capacity to provide drugs free of charge (except of those related to specific programs). The public relies on private purchase of drugs, which leads to high and growing OOPE. This will become unsustainable as NCDs continue to grow in the burden of diseases. High OOPE for drugs can severely compromise financial protection and UHC. Increased government expenditure on drugs will ensure availability of essential drugs at the PHC facilities to address high OOPE to a certain extent. Policy makers should consider health system financial options, social health protection schemes, cost-sharing policies, and service patterns to reduce OOPE on drugs.

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