Document of

The World Bank

FOR OFFICIAL USE ONLY

Report No: ICR00004281

IMPLEMENTATION COMPLETION AND RESULTS REPORT

ON A PROGRAM

IN THE AMOUNT OF US$ 874.9 MILLION

TO THE

PEOPLE'S REPUBLIC OF BANGLADESH

FOR THE

BANGLADESH - HEALTH SECTOR DEVELOPMENT PROGRAM (P118708)

December 5, 2017

[This ICRR replaces the version published in the Board Operations System on December 21, 2017. Reference to the "Embassy of the Kingdom of Netherlands (EKN)" was added in paragraph 20, page 11 and reference to EKN was added on paragraph 92, page 31]

Health, Nutrition & Population Global Practice
South Asia Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective December 04, 2017)

Currency Unit =	BDT
BDT 82.98 =	US$1
US$ 1.42 =	SDR 1

FISCAL YEAR
July 1 - June 30

Regional Vice President:	Annette Dixon
Country Director:	Qimiao Fan
Senior Global Practice Director:	Timothy Grant Evans
Practice Manager:	E. Gail Richardson
Task Team Leader(s):	Bushra Binte Alam
ICR Main Contributor:	Andre C. Medici

ABBREVIATIONS AND ACRONYMS

ADP	Annual Development Program
AF	Additional Financing
APIR	Annual Program Implementation Report
APR	Annual Program Review
AusAID	Australia Agency for International Development
BDHS	Bangladesh Demographic and Health Survey
BoD	Burden of Diseases
CAS	Country Assistance Strategy
CASPR	Country Assistance Strategy Progress Report
CC	Community Clinic
CD	Communicable Diseases
CIDA	Canadian International Development Agency
CPF	Country Partnership Framework
CMSD	Central Medical Stores Depot of the MOHFW
DAAR	Disbursement for Accelerated Achievement of Results
DALY	Disability-Adjusted Life Years
DFAT	Department of Foreign Affairs and Trade, Australia
DFID	Department for International Development of the Government of United Kingdom
DGDA	Directorate General of Drug Administration of the MOHFW
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services of the MOHFW
DHIS2	District Health Information System 2
DLI	Disbursement Linked Indicators
DLR	Disbursement Linked Results
DNS	Directorate of Nursing Services of the MOHFW
DPs	Development Partners
DPT3	Diphtheria- Pertussis Tetanus- 3.
EC	European Commission
EEP	Eligible Expenditure Program
EKN	Embassy of the Kingdom of Netherlands
ESP	Essential Health Services Package
FA	Financing Agreement
FM	Financial Management
FMAU	Financial Management and Audit Unit of the MOHFW
GDP	Gross Domestic Product
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GOB	Government of Bangladesh
HED	Health Engineering Department of the MOHFW
HIS	Health Information System
HNP	Health Nutrition and Population
HNPSP	Health Nutrition and Population Sector Program
HPDP	Health and Population Development Program
HPNSDP	Health Population and Nutrition Sector Development Program

HSDP	Health Sector Development Project
IBRD	International Bank for Reconstruction and Development (World Bank)
IDA	International Development Association of the World Bank
IEG	Independent Evaluation Group of the World Bank
IFA	Integrated Fiduciary Assessment
IFR	Internal Financial Review
INT	Integrity Vice-Presidency of the World Bank
IOI	Intermediate Objective Indicators
IPF	Investment Project Financing
LD	Line Directors of the MOHFW
KfW	Kreditanstalt für Wiederaufbau
KPI	Key Performance Indicators (or PDO indicators)
MCWC	Maternal and Child Welfare Centers
MDG	Millennium Development Goals
MDTF	Multi-Donor Trust Fund
M&E	Monitoring and Evaluation
MIS	Management Information Systems
MOHFW	Ministry of Health and Family Welfare
MOLGRDC	Ministry of Local Government, Rural Development and Cooperatives
MTR	Mid-Term Review
MWM	Medical Waste Management
NCD	Non-Communicable Diseases
NGO	Non-Governmental Institutions
NHA	National Health Accounts
NIPORT	National Institute of Population Research and Training
NPV	Net Present Value
OOP	Out-of-Pocket
OPs	Operational Plans
PAD	Project Appraisal Document
PDO	Project Development Objective
PFA	Project Financial Agreement
PHC	Primary Health Care
PMMU	Program Management and Monitoring Unit of the HPNSDP.
PRQR	Poorest/Richest Quintile Ratio
PWD	Public Works Department of the MOHFW
QER	Quality Enhancement Review
RBF	Results Based Financing
RF	Results Framework
SDG	Sustainable Development Goals
SDR	Special Drawing Rights
SDTF	Single Donor Trust Fund
SIDA	Swedish International Development Agency
SIL	Sector Investment Loan
SWAp	Sector Wide Approach
TB	Tuberculosis
THE	Total Health Expenditures

UESD	Utilization and Essential Services' Delivery Survey
UHC	Universal Health Coverage
UHC	Upazila Health Complex
UHFWC	Union Health and Family Welfare Center
UNICEF	United Nations Children's Fund
UNPFA	United Nations Population Fund
USAID	United States Agency for International Development
WHO	World Health Organization

TABLE OF CONTENTS

DATA SHEET

BASIC INFORMATION

Product Information

Project ID	Project Name
P118708	BANGLADESH - HEALTH SECTOR DEVELOPMENT PROGRAM (P118708)
Country	**Financing Instrument**
Bangladesh	Sector Investment and Maintenance Loan
Original EA Category	**Revised EA Category**
Partial Assessment (B)	Partial Assessment (B)

Related Projects

Relationship	Project	Approval	Product Line
Additional Financing	P151070-HSDP Additional Finance	24-Jun-2016	IBRD/IDA

Organizations

Borrower	Implementing Agency
PEOPLE'S REPUBLIC OF BANGLADESH	Ministry of Health and Family Welfare

Project Development Objective (PDO)

Original PDO

To enable the Government of Bangladesh to strengthen health systems and improve health services, particularly for the poor.

FINANCING

	Original Amount (US$)	Revised Amount (US$)	Actual Disbursed (US$)
World Bank Financing			
IDA-49540	358,900,000	358,045,515	342,842,064
TF-11556	327,970,432	327,264,127	327,263,551
TF-12281	36,591,655	36,558,645	36,558,645
IDA-58690	150,000,000	150,000,000	145,205,880
TF-A2917	1,478,552	1,478,552	1,478,552
Total	**874,940,639**	**873,346,839**	**853,348,692**
Non-World Bank Financing			
Borrower	0	0	0
Total	**0**	**0**	**0**
Total Project Cost	**874,940,639**	**873,346,839**	**853,348,691**

KEY DATES

Approval	Effectiveness	MTR Review	Original Closing	Actual Closing
26-May-2011	23-Oct-2011	30-Oct-2014	31-Dec-2016	30-Jun-2017

RESTRUCTURING AND/OR ADDITIONAL FINANCING

Date(s)	Amount Disbursed (US$M)	Key Revisions
25-Jun-2013	172.05	
26-May-2016	339.67	

KEY RATINGS

Outcome	Bank Performance	M&E Quality
Satisfactory	Moderately Satisfactory	Substantial

RATINGS OF PROJECT PERFORMANCE IN ISRs

No.	Date ISR Archived	DO Rating	IP Rating	Actual Disbursements (US$M)
01	21-Sep-2011	Satisfactory	Satisfactory	0
02	21-May-2012	Satisfactory	Satisfactory	95.32
03	08-Jan-2013	Satisfactory	Satisfactory	146.32
04	14-Aug-2013	Satisfactory	Satisfactory	172.05
05	15-Feb-2014	Satisfactory	Satisfactory	236.21
06	25-Aug-2014	Satisfactory	Satisfactory	264.80
07	02-Feb-2015	Satisfactory	Moderately Satisfactory	329.74
08	21-Aug-2015	Moderately Satisfactory	Moderately Satisfactory	329.44
09	25-Feb-2016	Moderately Satisfactory	Moderately Satisfactory	332.12
10	04-Oct-2016	Moderately Satisfactory	Moderately Satisfactory	340.08
11	21-Apr-2017	Satisfactory	Satisfactory	431.19
12	10-Aug-2017	Satisfactory	Satisfactory	468.17

SECTORS AND THEMES

Sectors

Major Sector/Sector	(%)
Health	**100**
Public Administration - Health	10
Health	90

Themes

Major Theme/ Theme (Level 2)/ Theme (Level 3)	(%)
Private Sector Development	**10**
Public Private Partnerships	10

Human Development and Gender	100
Health Systems and Policies	80
Health System Strengthening	40
Reproductive and Maternal Health	20
Child Health	20
Nutrition and Food Security	20
Nutrition	10
Food Security	10

ADM STAFF

Role	At Approval	At ICR
Regional Vice President:	Isabel M. Guerrero	Annette Dixon
Country Director:	Ellen A. Goldstein	Qimiao Fan
Senior Global Practice Director:		Timothy Grant Evans
Practice Manager:	Julie McLaughlin	E. Gail Richardson
Task Team Leader(s):	Sameh El-Saharty	Bushra Binte Alam
ICR Contributing Author:		Andre C. Medici

I. PROJECT CONTEXT AND DEVELOPMENT OBJECTIVES

A. CONTEXT AT APPRAISAL

Context

1. **In the last decade prior to project appraisal, Bangladesh made significant progress in its fight against poverty although the country still had a high proportion (5%) of the total number of the poor in the world and in South Asia.** From 2000 to 2010, Bangladesh reduced the number of people living in poverty from 58.6% to 43.3%. Between 2001 and 2011, the yearly per capita income growth was 4.2%.[1] The percentage of people living on less than US$1.25 per day in Bangladesh reduced at a rate that is 60% faster than the rest of the developing world, excluding China. The country also continued to have high population density and vulnerability to natural disasters.

2. **Part of the Bangladesh's success in reducing poverty is a result of strong macroeconomic management as well as economic and social reforms which were put in place in the last ten years.** Although governance in the public sector remained a challenge, the Bangladesh Government (GOB) managed to maintain macroeconomic stability, liberalize trade, reform the financial sector and moderate its interference in business. The GOB also increased investments in infrastructure (electricity and transportation services) in geographically delimitated economic zones through fiscal incentives to produce goods for international trade. Thus, Bangladesh has maintained consistent growth over the last decade before project appraisal, with an average yearly growth of 5.8% of the gross domestic product (GDP) between 2001-2010, avoiding the volatility experienced by many other similar economies, especially during the 2008 global financial crisis. In 2011, the country was on track to achieve the Millennium Development Goals (MDG) by sharply improving its social indicators in areas such as poverty reduction, primary education enrolment, gender parity in education, child mortality and maternal health, as well as HIV/AIDS, malaria and tuberculosis (TB).

3. **Despite impressive progress on the health related MDGs, there remained an unfinished agenda.** Bangladesh saw major reductions in infant mortality from 87 per 1000 live births during 1989-1993 to 43 per 1000 live births during 2007-2011. Also, under-five mortality declined from 133 per 1000 live births to 53 per 1000 live births in the same period. Likewise, maternal mortality ratio had impressively reduced from 320 per 100,000 live births in 2001 to 194 per 100,000 live births in 2010. Nutrition indicators had also improved in the last decade with a ten percentage points decline in stunting from 51% in 2000 to 41% in 2011. However, Bangladesh still had one of the highest stunting rates in the world. Moreover, the health sector was also facing the rising prevalence of non-communicable diseases (NCDs) in addition to continuing challenges in fighting communicable diseases (CDs). There was inequity in healthcare access and utilization as well as health outcomes between the rich and poor, e.g., in antenatal care and skill birth attendance. Despite the role of NGOs in providing the majority of antenatal care and institutional delivery, in the lowest two quintiles, most of these services were already provided by the public facilities in 2011.

[1] Between 2012 and 2016 the average yearly per capita income growth was even bigger (5.2%)

4. **Health Spending in Bangladesh was very low and mostly concentrated among families**. According to the National Health Accounts (NHA) 2011, the total health expenditures in Bangladesh represented only 3.5% of the GDP with a per capita spending of only US$27. Household out-of-pocket (OOP) spending represented the largest share, at 63.3% of the total health spending (THE) while government, external aid and voluntary health insurances represented 23.1%, 8.4% and 5.3%, respectively. The urban health spending in urban areas of Dhaka was three times higher than the health spending in rural areas of Sylhet, one of the poorest provinces of the country.

5. **Structure of the Health System in Bangladesh**: The pluralistic health sector of Bangladesh has four key actors that define the structure and function of the system: government, private sector, non-governmental organizations (NGOs) and donor agencies. The (GOB) is the first key actor responsible for policy, regulation and the provision of comprehensive health services, including financing and employment of health staff. The Ministry of Health and Family Welfare (MOHFW), through the two Directorates General of Health Services (DGHS) and Family Planning (DGFP), manages a dual system of general health and family planning services through district hospitals, Upazila Health Complexes (with 10 to 50 beds) at sub-district level, Union Health and Union Health and Family Welfare Centers (UHFWC), at union level, and community clinics at local level. In addition, the Ministry of Local Government, Rural Development and Cooperatives (MOLGRDC) manages the provision of urban primary care services.

6. **The for-profit private sector provides marginally primary and specialized ambulatory care and hospital services**. Some international hospital networks operate in the country and private medical colleges provide clinical services as part of their training for students. Private health care facilities are regulated by laws established in 1982 which created a favorable environment to the increase of private health care since the 1990s. However, accessibility to private health services is still limited to the middle and high income groups, particularly in urban areas.

7. **At project appraisal, there were almost 4,000 NGOs, mostly financed by donors.** Many NGOs provide health promotion and prevention activities, particularly at the community level, in their health centers and inpatient care at some hospitals. An USAID-funded network of NGOs provides primary care nationwide through its Smiling Sun clinics. In selected urban areas, NGOs provided health promotion and prevention activities, particularly at the community level, and in family planning, maternal and child health. Donor Agencies and some NGOs pull their resources in Health Programs managed by the GOB.

8. **The health sector in Bangladesh was facing several structural and management challenges.** The MOHFW in 2011 had weak institutional capacity, shortage of human resources and unskilled health personnel, fragmented public services delivery, inefficient allocation of public resources and poor regulation of private sector amid centralized health system. Budget was historically allocated on an incremental basis and in the same proportions according to line items and 10-20% of Annual Development Program budget in the health sector was being unspent due to poor planning, delayed procurement processes and delayed release of funds. There were stock-outs of drugs and medical supplies, weak procurement and supply chain management system and poor asset management.

9. **To address these challenges, the MOHFW created the Health, Population and Nutrition Sector Development Program (HPNSDP - Program) to be implemented from 2011 to 2016.** The Program's goal was to "*ensure quality*

and equitable health care for all citizens of Bangladesh"[2]. The Program was planned to devote 70% of its financing to support delivery of priority health services and 30% to improve the health systems. The Program was jointly prepared by MOHFW's implementing agencies at the central and district (upazila) levels[3], other GOB ministries, development partners (DPs), non-government organizations and other civil society entities. The Health Sector Development Project (HSDP), financed by the Bank and several international donors, was prepared to support the Program (HPNSDP) which prioritized both HNP care services and strengthening of critical health systems including planning, health financing, human resource management, information systems, pharmaceutical management and procurement and financial management. To finance critical reforms to improve health outcomes, a multi-year integrated and consolidated technical assistance plan was developed and supported separately by the Department for International Development of the Government of United Kingdom (DFID) and other DPs.

10. **The HPNSDP represented a continuation of the previous Health Nutrition and Population Sector Program (HNPSP), also supported by the World Bank and other donors, and which was also implemented through a sector-wide approach (SWAp) by the MOHFW[4]**. In that six-year program of US$4.3 billion, the HNPSP had mobilized a total of US$1.2 billion with DPs' assistance which included US$681 million in pooled funds (US$293 million IDA credit plus and IDA-administered multi-donor trust fund (MDTF) of US$388 million from seven DPs). The HNPSP had three components: (i) accelerating achievement of health, nutrition and population (HNP) related MDGs and poverty reduction strategic goals; (ii) meeting emerging HNP challenges including injuries and NCDs; and (iii) advancing HNP-sector modernization through reforms such as decentralization and contracting out with non-state providers. The HNPSP outcome achievement as well as the Bank and Borrower performance were rated as *Moderately Satisfactory,* according to the World Bank's Independent Evaluation Group (IEG)[5].

11. The new HSDP and the HPNSDP were fully aligned with the Bank's Country Assistance Strategy (CAS) for the fiscal years 2010-2012[6], especially with the strategic objective 2, related to *improving social services delivery, with a specific outcome of improved access to quality health, population and nutrition services*, and with the strategic objective 4, related to *enhancing accountability and promoting inclusion, with a specific outcome of increased effectiveness of public services delivery at local level*. An analysis of the accomplishments of this CAS, published in 2013[7], revealed that Bangladesh's economic growth had been inclusive and the country was on track to promote gender equality and empowerment of women (Goal 3), reduce child mortality (Goal 4), improve maternal health (Goal 5) and partially meet the eradication of extreme poverty and hunger (Goal 1). Based on the report's recommendations, the CAS was extended from 2012 to 2015. The report also recommended an Additional

[2] According the Annex I-B of the HSDP Project Appraisal Document (PAD), the extended program goal was "*increase availability and utilization of user-centered, effective, efficient, equitable, affordable and accessible quality health, population and nutrition services*".

[3] Upazilas are district health complexes or networks, managed by local level authorities.

[4] In fact, the HSDP has two previous programs based on the same institutional arrangements between the Bank and other Development Partners (DPs). The first one was the Health and Population Sector Program (HPSP 1998-2003) with a total investment amount of US$2.2 billion. The second was the HNPSP (2003-2011), with a total investment of US$4.3 billion and the third one was the HPNSDP (2011-2017), with a total amount (at project closing) of US$6,6 billion. Along the time, the participation of the Government funds in the total Programs' financing increased as following: HPSP (62%); HNPSP (67%) and HPNSDP (78%), indicating more commitment of the budgetary funds with the financing of health reforms.

[5] World Bank/IEG, Implementation Completion and Results Report Review (ICRR No. 14043), posted in 10-03-2013.

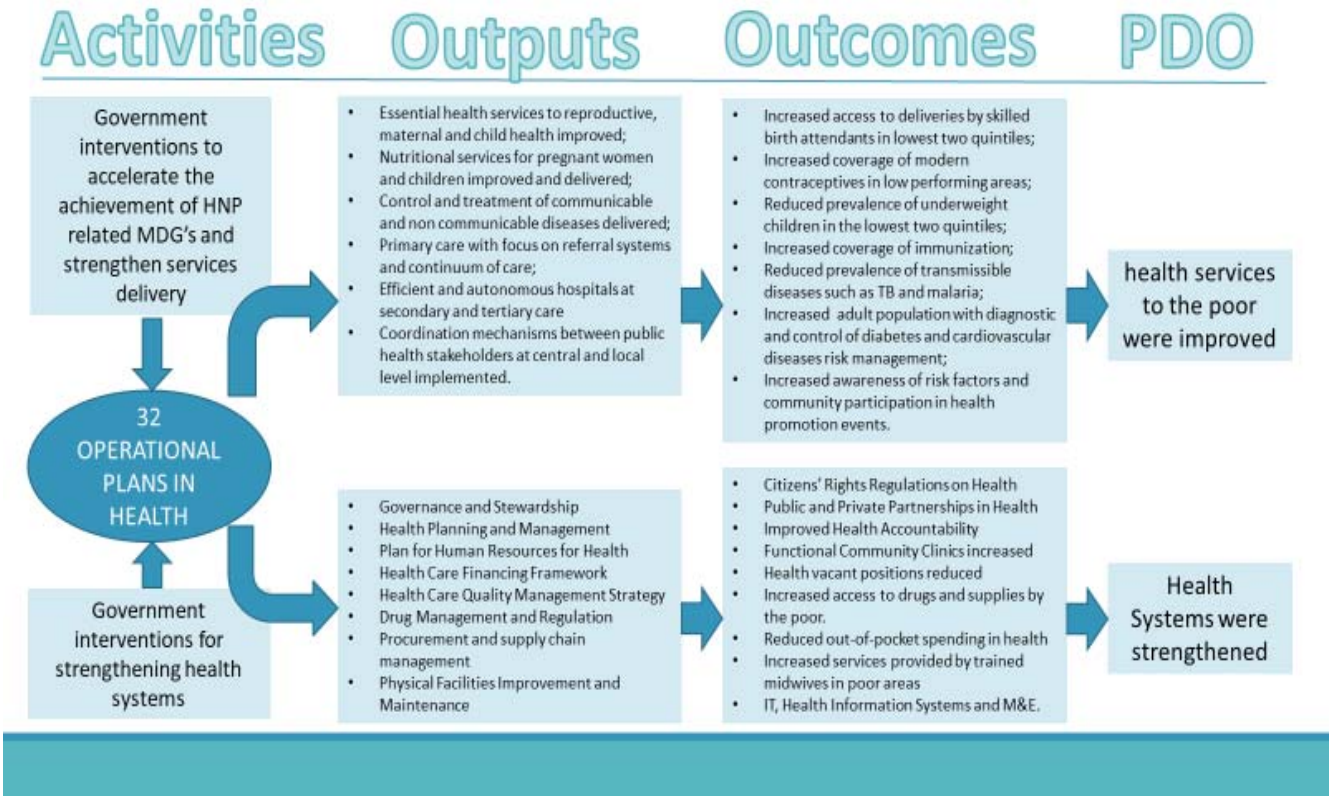
[6] Country Assistance Strategy for the People's Republic of Bangladesh – FY10-12, Report No. 54615-BD, The World Bank, 2009.

[7] Country Assistance Strategy Progress Report (CASPR) for the People's Republic of Bangladesh for the Period FY11-15, Report No. 73983-BD, The World Bank, 2013.

Financing (AF) for the HSDP, while keeping the goal of improved quality of HNP services unchanged in the CAS, and to increase commitment for analytical and technical assistance in the health sector.

Theory of Change (Results Chain)

12. **The Project was consistent with the overall government's HPNSDP, (the Program), and focused on improving health services, especially for the poor, as well as on strengthening health systems.** It was structured to be implemented as a SWAp of the HPNSDP with pooling arrangements to finance 32 operational plans (OPs), measured by 158 indicators. The diagram below shows the relationship between the activities (expressed in 32 OPs), the project outputs and outcomes and the long-term project development objectives (PDO).



13. **The HSDP funded a slice of the MOHFW 's Health Sector Program (HPNSDP).** The activities funded by HSDP included provision of all commodities (contraceptives, vaccines, medicines etc.) and equipment for delivery of primary, secondary and some tertiary health care; supported national public health programs on both communicable (TB, Malaria, HIV&AIDS, Kala-azar, etc.) and NCDs; capacity building for the health professionals including the fiduciary staff in the ministry and different directorates dealing with financial and procurement management; strengthening of monitoring through provision of necessary IT equipment combined with training;

extension of the existing physical facilities with repair and maintenance; supported the strengthening of the accountability of health service delivery through citizen participation and voice.

14. **The results chain of the program required a combined action of the technical and operational departments of the MOHFW and DPs.** The implementation responsibilities for HPNSDP were shared by the MOHFW and its following departments: Directorate General of Health Services (DGHS); Directorate General of Family Planning (DGFP); Directorate of Nursing Services (DNS); Directorate General of Drug Administration (DGDA); Health Engineering Department (HED); National Institute of Population Research and Training (NIPORT) and other relevant institutes/organizations. The DPs supported the program through their active participation in different Task Group (Sector Wide Management; Financial Management; Procurement; Monitoring and Evaluation; Health Financing; Maternal, Neonatal, Child and Adolescent Health and Family Planning; Nutrition; Gender Equity, Voice and Accountability). The program was regularly reviewed with participation of GOB, DPs and with a group of independent consultants for different thematic areas. These Annual Program Reviews(APRs) were used as management instrument for both the government and DPs to monitor progress in the implementation of the Program. They supported the verification of management and policy responsibilities. These APRs proved to be effective and useful. The APRs were followed with aide-memoires along with Priority Action Plans that were monitored the following year by different task groups (consisted of GOB and DP members) and other monitoring mechanisms like Local Consultative Group (LCG) - Health sub working group, chaired by the Secretary of the MOHFW.

Project Development Objectives (PDOs)

15. The PDO, according to the Financing Agreement (FA), was: to enable the Recipient to strengthen its health systems and improve its health services, particularly for the poor.[8]

Key Expected Outcomes and Outcome Indicators

16. **The PDO has two intended outcomes or specific objectives:** The efficacy of both outcomes was measured separately according to its respective indicators: (i) Objective 1 - Strengthened health systems and; (ii) Objective 2 - Improved health services, particularly for the poor.

17. **The Results Framework (RF) of the HSDP was a subset of the Government's HPNSDP Program[9].** The Program included eight priority indicators and 33 program indicators, linked to two components (same as the HSDP) and 12 expected results[10]. According to the PAD, HSDP RF originally had 3 PDO level indicators (or key performance indicators – KPI) and 11 Intermediate Outcome indicators (IOI) and 4 Core Sector Indicators. The three KPIs are:

[8] The PDO in the Project Appraisal Document (PAD) is: to enable the GOB to strengthen health systems and improve health services, particularly for the poor.

[9] The HPNSDP had a robust RF and M&E systems and the MOHFW prepared annual reports on the status of the Program indicators. However, the total HPNSDP indicators were not under supervision of the HSDP project, given that the project funded only a small fraction of the Program resources. Considering this, this ICR will evaluate the efficacy of the project, based in the achievement of the HSDP indicators and not in Program indicators

[10] See Annex 1.B of the PAD (Results Framework and Monitoring of the GOB's Program (HPNSDP), pages 22-25.

(i) proportion of delivery by skilled birth attendant among the lowest two wealth quintile groups; (ii) coverage of modern contraceptives in the low performing areas of Sylhet and Chittagong, and; (iii) prevalence of underweight among children under 5 years of age among the lowest two quintiles groups.

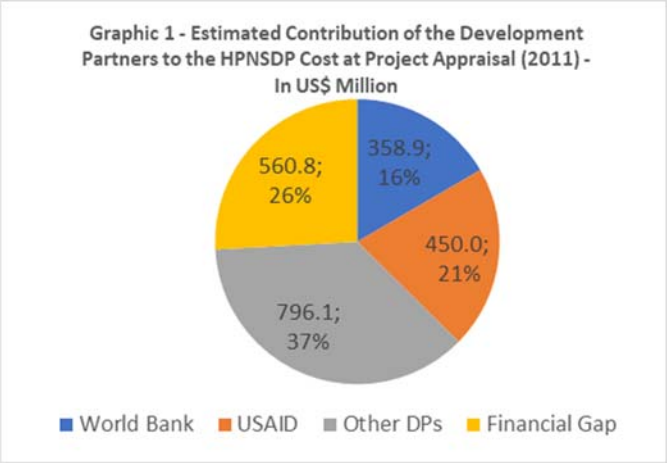
18. The PDO indicators measured outcomes related to improvements in health service delivery, particularly to the poor, while the IOIs also measured health system improvements. The reason for this design was to highlight the priority given to the service delivery outcomes, with health system indicators being the underlying critical elements required to achieve the main service delivery goals. Annex 1 (Results Framework) presents in details the KPIs and IOIs, as well as their respective links with the two objectives (or parts) of the PDO.

Components

19. **To maintain consistency with the HPNSDP, the HSDP had two broad components:**

Component 1 - Improving Health Services (IDA US$251.2 million) had two subcomponents: 1.1 Improving health programs, including scaling up of reproductive, adolescent, maternal, neonatal, infant and child health and family planning services through quality and reliability of services, focusing on selected district hospitals and upazila health complexes; nutrition interventions for pregnant women and children by integrating nutritional services in the DGHS and DGFP services; control and treatment of communicable (CDs) and non-communicable diseases (NCDs); and interventions to promote healthy behavior and; 1.2 Improving Service provision: strengthening service delivery of primary health care (PHC) for a continuum of care by piloting universal health coverage (UHC) by upgrading and equipping at least one upazila health complex (UHC) in each district and rehabilitating community clinics; better management of hospitals at secondary and tertiary levels; and the provision of health, nutrition and family planning services to the urban population by establishing a coordination mechanism between MOHFW and the Ministry of Local Government, Rural Development and Cooperatives (MOLGRDC).

Component 2 - Strengthening Health Systems (IDA US$107.7 million) - included the following activities: (i) governance and stewardship; (ii) health sector planning and management; (ii) human resources for health; (iv) health care financing; (v) health information systems (HIS), (vi) monitoring and evaluation (M&E) and research; (vii) quality of health care; (viii) drug administration and regulation; (ix) procurement and supply chain management, and; (x) physical facilities and maintenance.



20. **The total estimated cost of the HPNSDP at appraisal was US$8,011 million, including development and non-development budgets.** The estimated development budget was US$3,334 million (41.6% of the total Program cost), of which the GOB provided US$1,167 million. The remaining amount (US$2,167 million) was to be provided by the DPs. However, at project appraisal, only US$1,605 million were expected to be contributed by the DPs. Graphic 1 shows the distribution of the estimated contribution of the DPs in the HPNSDP in four components: The World Bank (IDA), USAID, other DP's and non-committed funds. The IDA contribution of US$358.9 million represented 16% of the

HPNSDP development budget. The total estimated cost of the HPNSDP at appraisal was US$8,011 million, including development and non-development budgets. The Bank was the second major contributor among the DPs, second to the USAID which committed US$450 million to the HPNSDP. As shown in Graphic 1 there was an estimated financing gap of US$560 million during appraisal which was expected to be covered by future donors' commitments. To support the GOB'S HPNSDP, some DPs and the GOB agreed to establish a pooled fund administered and managed by the World Bank. The pooled fund included the IDA fund, the Multi-Donor Trust Fund (MDTF) contributed by DFID, UNFPA, Canada, Sweden, KfW, the Embassy of the Kingdom of Netherlands (EKN) and Australia (Australia dropped after two tranches due to change in their development commitments) and the Single Donor Trust Fund (SDTF) contributed by the USAID. The pooled fund (estimated at US$724.9 million before the additional financing) was to finance activities through a mutually agreed Annual Development Program (ADP) and Operational Plans (OPs).

B. SIGNIFICANT CHANGES DURING IMPLEMENTATION (IF APPLICABLE)

PDOs and Outcome Targets

21. **The PDO remained unchanged during the project's life. However, an Additional Financing (AF) in the amount of US$150 million was approved by the Bank on June 24, 2016 to fill the financing gap in the last year of the project implementation**. According to the AF Project Paper[11], the rationale for the AF included: (a) higher than planned disbursements linked to accelerated achievement of results; (b) exchange rate fluctuations reducing the expected amount of resources, and; (c) lower levels of the DPs co-financing of the HSDP compared with their original commitments.

22. **The AF also included project restructuring with the following changes**: (a) Extension of the Project Closing Date from June 30, 2016 to June 30, 2017; (b) Disbursements earmarked to the results as measured by disbursement linked indicators (DLIs); (c) Revision of the RF expanding the number of IOIs from 11 to 13 to place greater emphasis on health systems strengthening. The 4 Core Sector indicators were officially recorded in the AF paper although they were added during early stages of implementation as mandated by the Bank (not requiring restructuring). The changes also included (d) modification of components and costs; (e) changes in financial management (FM) arrangements due to the introduction of DLIs, and; (f) simplification of the procurement arrangements as the eligible expenditure program (EEP) did not include procurable items. The last two changes were also related with the need to improve fiduciary mechanisms due to issues in procurement processes that will be detailed in the section of fiduciary compliance. The changes in the HSDP RF are reflected in Annex 1A.

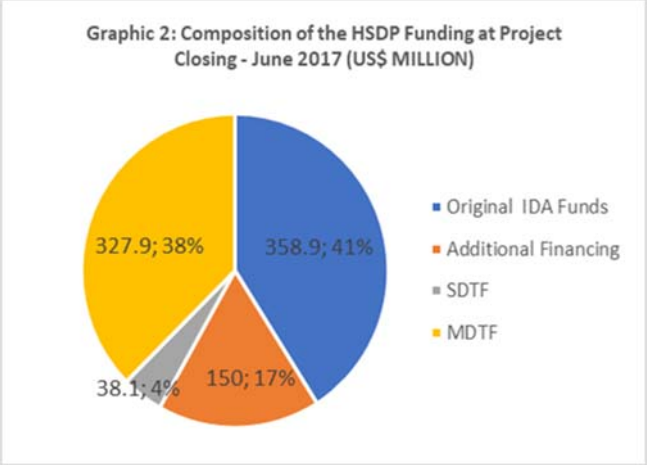
Revised Project Cost and Components

23. By **the Project Closing Date, the total HSDP cost increased to US$874.9 million**. This amount included the following funds: (a) original IDA funds of US$358.9 million (IDA-49540); AF of US$150 million (IDA-58690); US$327.9 million from the MDTF (TF-11556) and US$38.1 million from a single-donor trust fund (SDTF)

[11] Report No. PAD1383 of June 8, 2016.

contributed by USAID (TF-12281 and TF-A2917) (Graphic 2). USAID had contributed this amount into the pooled fund from their total support to the HPNSDP. The Project disbursed 99% of its commitments by October 10, 2017.

24. **The distribution of the Project IDA funds by component also changed during project implementation**. Annex 3 shows that, according to the PAD, 70% of the project funds would originally be spent in Component 1 (Improving Service Delivery) meanwhile 30% should be spent in Component 2 (Strengthening Health Systems). The final distribution of the funds by component (after the AF) showed an increased cost of Component 2 (from 30% to 43%) and a reduced cost of Component 1 (from 70% to 57%). These changes represented a bigger commitment of the Project to institutional reforms to modernize and to improve governance and stewardship of the MOHFW. As a result, health management and planning, health financing mechanisms, human resources capacitation, health infrastructure, asset maintenance and supply chain management were strengthened at central and local levels. At Project's closing, the Component 1 represented US$291.2 million and Component 2 represented US$217.7 million, totaling US$508.9 million in IDA financial contribution.



25. **The DLI-based disbursement introduced under AF established results associated with each DLI called Disbursement Linked Results (DLR) or targets.** When these DLRs were met, the Bank transferred to the GOB an amount equivalent to the value of each target, according to Annex B of the AF Document. The entire amount of the AF (US$150 million) was disbursed against DLRs. Three of the 15 DLIs were focused on service delivery (numbers 1, 2 and 3) while 12 were to strengthen health systems (numbers 4 to 15). The AF RF used some DLIs (numbers 1, 2, 3 and 15) as IOIs. Table 1 summarizes the 15 DLIs, their baselines, the corresponding DLRs and their values.

Table 1– Project DLIs under the 2016 AF & Restructuring

Disbursement Linked Indicators (DLIs)	Baselines	DLRs	Values (US$M)
Measles Immunization Rate	86.1%	87.0%	10.0
Deliveries in Public Facilities	390,000	401,818	10.0
Tuberculosis (TB) notification rate for bacteriologically positive cases	68 per 100,000	79. per 100,000	20.0
Performance of District Health Information System (DHIS2)	Additional 20 CCs	Achieved	10.0
Strategic Investment Plan (SIP) for the health sector for the next five years	Not approved	Approved	20.0
Standard Guidelines for Medical Waste Management (MWM)	Guidelines drafted	Guidelines disseminated	20.0
MWM in district hospitals	10	15	3.0
Contract Management Guidelines for Bangladesh Health Sector	No available	Approved	5.0
New institutional organogram of the Central Medical Stores Depot	No available	Submitted	5.0
Strengthening of procurement procedures	No available	3 actions identified	15.0
Restructuring of the financial management audit unit (FMAU)	No action	Proposal finalized	5.0
FY2014 internal audit of MOHFW with a time bound action plan	On going	Adopted	7.0
Assessment of MOHFW's accounting needs	Not available	Completed	5.0
Asset Management pilot	Designed	Completed	5.0
MOHFW's web-based complaint mechanism	Established	Maintained	5.0

Other Changes

26. **The Project underwent a Mid-Term Review (MTR), from August to October, 2014**, guided by the MTR Steering Committee consisting of GOB and DP representatives. The Midterm Program Implementation Report assessed the program progress over the first three years, including updated targets for the RF, the Prioritized Action Plans 2012 and 2013, Governance and Accountability Action Plan, joint field visits, study reports, several rounds of task group meetings, focused consultations with various stakeholders and a series of policy dialogue sessions. The process also included revisiting the 32 Operational Plans (OPs), the budget of HPNSDP and series of meetings to review the revised OPs to undertake midterm course correction and reprioritization of activities in the OPs. The RF review in the MTR included a downward revision of the target for the KPI#2 related to the use of contraceptives in low performing areas, which was partially achieved, even though the figures for Sylhet and Chittagong were considerably below the national coverage. This was reflected when the HSDP was restructured in 2016.

27. **The GOB's HPNSDP was extended from June 30, 2016 to December 31, 2016. Subsequently, the HSDP was restructured with AF and extended from December 31, 2016 to June 30, 2017 to allow for the completion of the verification of the DLRs achieved six months beyond the Program's completion date.** The AF also allowed a retroactive financing up to US$60 million (40% of the IDA credit) for past expenditures on salaries and allowances of the officers and employees on an exceptional basis as it was beyond the maximum 20% of Credit amount that is normally allowed.

Rationale for Changes and Their Implication on the Original Theory of Change

28. **Rationale for the AF.** The AF was requested by the Government to fill the financing gap in the Program.[12] The use of DLIs under the AF was justified by two points of view: to help the government enhance its focus on outcome and results, and to improve overall governance in the sector (including the implementation of the recommendations of the fiduciary assessment (see paragraph 70)). The AF also revised the RF, as discussed above, to include a focus on achievement of results under the two project components. In addition, the AF provided the mechanism to sharpen the focus on results and paved the way for supporting the next GOB program (2017-2021) with a Bank-financed DLI-based operation[13] which was approved on July 28, 2017.

II. OUTCOME

29. **The assessment of outcomes is analyzed in <u>two phases</u>:** the first phase was from May 2011 to May 2016 when the project was implemented under a sector investment lending (SIL) approach and the second phase was from June 2016 to June 2017 when the project was financed using a DLI-based financing model. The reason for using the split rating approach is because the RF was changed and some RF targets were lowered.

[12] PAD-1383 June 6, 2016.
[13] Health Sector Support Project (HSSP).

A. RELEVANCE OF PDOs

Assessment of Relevance of PDOs and Rating

Rating: High for both phases

30. **The PDO was composed of two objectives: (PDO1) strengthen health systems and (PDO2) improve health services, particularly for the poor.** The relevance of both parts of the PDO is High, given that they were perfectly matched with the Bangladesh Health Programs and were directly reflected in objectives of the World Bank CAS in Bangladesh[14]. The CAS progress report of 2013 highlighted the relevance of these two objectives, as part of the HNP strategy in Bangladesh, as well as showed that the Bank has been responsive to the MOHFW's needs of improving health services and strengthening health systems. The PDO remained relevant throughout implementation and was closely aligned with the HNP Program in Bangladesh. It was consistent with the CAS 2010-2015 and remained highly relevant to the current Country Partnership Framework (CPF) 2016-20[15] as well as with the HNP Strategic priority directions and the new health operation (The Health Sector Support Project - P160846), approved in FY2018. The relevance of the PDO contributed to the CPF's priorities of: (a) improving the quality of public health service delivery; (b) increasing public funding for health, (c) moving towards universal health coverage and (d) reducing the vulnerability of the poor and enhancing their ability to participate in the labor markets. As a result, the PDO is also in line with the Bank's twin goals of reducing poverty and boosting shared prosperity by generating better health outcomes.

B. ACHIEVEMENT OF PDOs (EFFICACY)

Rating: Substantial for both phases

31. **The overall efficacy rating of the HSDP is the result of the achievement of the indicators associated with the two parts of the PDO during the two project phases**, which are rated as Substantial (see details in Annex 1 and Annex 1-A as well as in the text below).

Assessment of Achievement of Each Objective/Outcome

32. **Achievement of the objective 1: Strengthen health systems**: Substantial in both phases. PDO1 was measured by seven IOIs in phase 1. These IOIs measured the progress and compliance of the MOHFW in several aspects of governance, such as improvement of health infrastructure to provide better access. Under the program (2010-2016), the number of health facilities providing antenatal care increased by 217% and the number of hospitals revitalized under the baby friendly health initiative increased by 840%. The number of skilled birth attendants increased by 60%, according to UESD Surveys 2010-2016. The project improved substantially the health units' planning processes and allocation of health spending. Table 4-1 of Annex 4 shows more details on improved health systems indicators. The analysis revealed that the targets in five out of seven IOIs were surpassed, achieved or partially achieved, indicating a level of achievement of 78%. In phase 2, 8 of 10 IOIs were

[14] Country Assistance Strategy for the People's Republic of Bangladesh – FY10-12, Report No. 54615-BD, The World Bank, 2009. Some preliminary progress on the achievement of the PDO could be seen in the Country Assistance Strategy Progress Report (CASPR) for the People's Republic of Bangladesh for the Period FY11-15, Report No. 73983-BD, The World Bank, 2013

[15] Country Partnership Framework for Bangladesh for the Period FY16-FY20, Report No. 103723-BD, March 8, 2016.

surpassed, achieved or partially achieved, indicating a higher level of achievement (81%). At the end of the project, the MOHFW health systems were improved substantially, allowing the GOB to implement the new project design based on DLIs. The achievement against this PDO is also supported by progress made against DLIs, most of which were focused on strengthening health systems (see below). Considering this significantly improved performance, the rating of PDO1 in both phases is considered Substantial.

33. **Achievement of the objective 2: Improving Health Services, particularly for the poor**. Substantial in phase 1 and high in phase 2. PDO2 was measured by three KPIs and four IOIs in phase 1. The KPIs measured progress in mother and children health indicators, such as birth delivery by skilled birth attendant, coverage of modern contraceptives and prevalence of underweight children under 5 years old among the lowest two income quintiles and low performing areas. Two KPIs targets were surpassed, and one not achieved (modern contraceptive use). The IOIs measured the proportion of birth in health facilities, coverage of measles immunization for children under one year, proportion of breastfed up to six months of age and proportion of postnatal care for women within 48 hours. Of the seven IOIs, two were surpassed, two were achieved, one was partially achieved and two were not achieved. In phase 2, the number of KPIs increased from three to four, and the number of IOIs increased from four to eight. Three KPIs were surpassed and one was achieved. Of the eight IOIs five were surpassed, two were achieved and one was partially achieved. The summary of achievements of the PDO indicators (KPI) at the end of the project and for the two parts of the PDO in both phases of the project is reflected in Tables 2 and 2A, respectively.

Table 2 –Achievement of the HSDP PDO Indicators (KPIs) - (2011-2017)

KPI Indicators	Baseline (2011)	Target	Results Achieved (2017)	Level of Achievement
KPI#1: Proportion of delivery by skilled birth attendant among the lowest two wealth quintiles	11.5%	31.0%	33.6%	Surpassed
KPI#2: Coverage of modern contraceptives in the low performance areas of Bangladesh (Sylhet)	35.7%	42.0%	42.6%	Surpassed
KPI#3: Coverage of modern contraceptives in the low performance areas of Bangladesh (Chittagong)	46.8%	48%	48.5%	Surpassed
KPI#4: Prevalence of underweight among children under 5 years old of age among the lowest two wealth income groups	48.3%	43.3%	43.3%	Achieved

Table 2A – Summary of Indicators' Achievement in the Two Phases of the Project

Rating Categories and Corresponding Points of Intervals	Phase 1		Phase 2	
	KPIs	IOIs	KPIs	IOIs
Surpassed (>100%)	-	1	-	2
Achieved (85% to 100%)	-	4	-	2
Partially Achieved (65% to 84%)	-	1	-	2
Not Achieved (<65%)	-	2	-	2
Total PDO 1 – Strengthening Health Systems	-	8	-	8
% Achieved, Surpassed and Partially Achieved	**-**	**78%**	**-**	**81%**
Surpassed (>100%)	2	2	3	5
Achieved (85% to 100%)		2	1	2
Partially Achieved (65% to 84%)	-	1	-	1
Not Achieved (<65%)	1	2	-	-
Total PDO 2 – Improving Health Systems	3	7	4	8
% Achieved, Surpassed and Partially Achieved	**100%**	**82%**	**137%**	**128%**

Source: Tables 1A-2 and 1A3 of Annex 1A. A weighted average was calculated using the following scale: Surpassed=1.5 times; Achieved=1.0 times and Partially achieved=0.75 times.

Other Aspects of the Achievement of the PDOs

34. **Because the HSDP is part of the HPNSDP, it is important to evaluate the program as a whole.** Its RF included results and intermediate indicators, and 32 OP indicators. In addition, since the HSDP project in its second phase linked disbursement with results, it is also important to review progress against the DLI matrix.

35. **Efficacy of the Program:** Substantial. Annex 1-B of the PAD presents the RF and monitoring of the MOHFW Program. Being under direct responsibility of the MOHFW, the HPNSDP Program's RF included eight result indicators, associated with the Program goal and 32 intermediate indicators associated with its two components (*Service Delivered Improved and Strengthened Health Systems*). Table 3 shows that two of eight key Program indicators did not fully achieve their targets and only one nearly achieved its target. Both indicators are associated with birth delivery quality at health facilities. All other six indicators' targets were achieved or were on track to be achieved before the stipulated time.

Table 3 – Level of Achievement of the Main 8 Indicators of the HPNSDP Program in Bangladesh (2011-2016)

Main Indicators	Base Line, Year and Source	Target for 2016	Results, Year and Source	Level of Achievement
Infant Mortality Rate (per 1000 live births)	52.0 (BDHS, 2007)	31.0	30.7 (United Nations, 2015*)	Achieved
Under 5 Mortality Rate (per 1000 live births)	65.0 (BDHS, 2007)	48.0	37.6 (United Nations, 2015*)	Achieved
Neo-Natal Mortality Rate (per 1000 live births)	37.0 (BDHS, 2007)	21.0	23.3 (United Nations, 2015*)	Nearly achieved
Maternal Mortality Ratio	194.0 (BMMD, 2010)	<143.0	176.0 (United Nations, 2015**)	Not achieved
Total Fertility Rate (children per women)	2.7 (BDHS, 2007)	2.0	2.07 (United Nations, 2017***)	Achieved
Prevalence of stunting among children under 5	43.2% (BDHS, 2007)	38.0%	36.0% (BDHS, 2014)	Achieved
Prevalence of underweight among children under 5	41.0% (BDHS, 2007)	33.0%	33.0% (BDHS, 2014)	Achieved
Prevalence of HIV in most at risk population	<1% (SS 2007)	<1%	0.1% (SS, 2014)	Achieved

(*) Estimates developed by the UN Inter-Agency Group for Child Mortality Estimation (UNICEF, WHO, World Bank, UN DESA Population Division) at ***www.childmortality.org***.
(**) WHO, UNICEF, UNFPA, World Bank Group, and the United Nations Population Division. Trends in Maternal Mortality: 1990 to 2015. Geneva, World Health Organization, 2015
(***) According the Population Division of the United Nations (2017 Review) this is the value of the total fertility rate in Bangladesh for the average period 2015-2020 (see ***https://esa.un.org/unpd/wpp/Publications/Files/WPP2017_KeyFindings.pdf***). This value is very close to the HPNSDP target.

36. **Program Intermediate indicators**: The last Annual Independent Program Report (APIR), issued by the MOHPW in December 2016, showed that out of the 32 Program intermediate indicators, 24 were achieved or partially achieved and 8 were not achieved and/or were off-track to be achieved. Annex 1-A shows the performance of these indicators against the original baselines. However, many results for the Program indicators were based on data from the BDHS 2014, evidencing progresses achieved two years before the Program closing. Better achievements of the Program indicators should be demonstrated when the BDHS 2017 data will be available in 2018. On the positive side, there is an impressive progress until 2014 in indicators such as *skilled birth attendance, ante-natal care coverage, unmet need for family planning, the upgraded union-level facilities able to provide normal deliveries, the regulatory framework for accreditation, non-pool DPs submitting quarterly expenditure reports and the proportion of serious audit objections settled*[16]. On the negative side, the last APIR

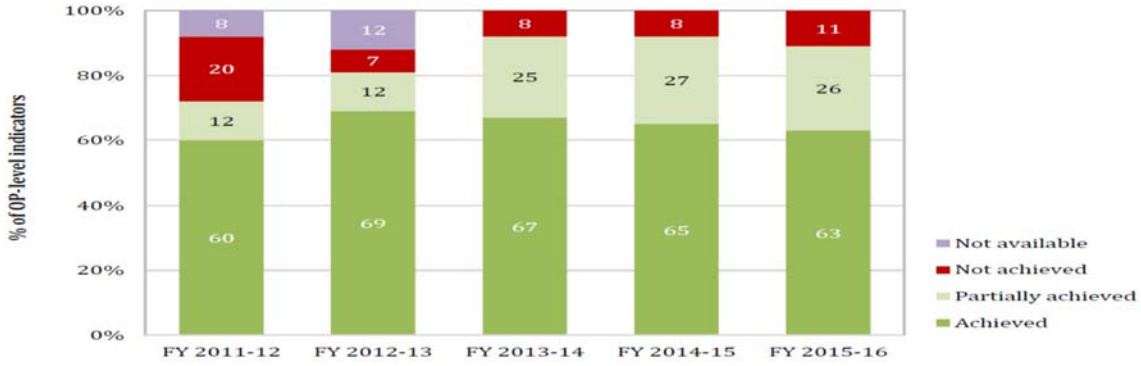
[16] Despite these good achievements, as recognized in the MTR, some of the indictors' targets were clearly ambitious compared to their baseline, such as those related to skilled birth attendance, ante-natal care coverage, unmet need for family planning, union facilities providing normal deliveries and the proportion of settled audit objections.

identified 8 indicators with results worse than those of their baseline figures, including: *TB case detection rate*[17]*; children fed with approximate infant and young child feeding practices; proportion of the MOHFW budget allocated to upazila's level or below; number of comprehensive emergency obstetric care facilities working 24 hours/day- 7days/week; proportion of facilities without stock-out of contraceptives; utilization rate of reimbursable project aid against revised annual development program and proportion of OPs with expending above 80% of ADP allocation*.

37. **The HSDP Project and the HPNSDP Program also improved the national response system for CDs.** After the project interventions, this system is effective, particularly for HIV, filariasis, kala-azar, leprosy and TB. During the project period, services for prevention and control of CDs have been scaled-up. An integrated surveillance system was institutionalized for evidence based decision making towards disease prevention and control. Targets for elimination of filariasis and kala-azar were achieved. Leprosy control has been well sustained at 0.21 case per 10,000 population. TB notification rate increased from 74 cases per 100,000 population in 2010 to 130 cases per 100,000 in 2015. While the detection rate of TB is still low, the treatment success rate is more than 90 percent. The TB incidence rate has remained unchanged during the last decade, with the country ranking third in the world for prevalence, despite having one of the highest TB case treatment success rates. HIV has remained at relatively low levels (at less than 5%) in the most at risk population groups. There is, however, a concentrated HIV epidemic among drug-injecting users. There is also a rise in NCDs like diabetes, hypertension and cancer. As the country is experiencing an epidemiological transition from CDs to NCDs, there is a double burden of both CDs and NCDs.

38. **Efficacy of the OP Indicators:** Substantial. In addition to the RF of the HPNSDP Program, the MOHFW followed a set of 32 operational plans (OPs) with performance linked to 158 indicators. OP level indicators had not been ever introduced in the Bangladesh health sector in the HPNSDP before. Initially, there were 316 indicators to evaluate progress of these 32 OPs. However, in the first year of the program (2012) some problems were identified, such as lack of baselines, duplication, unclear and/or ambitions targets and confused ways to record the achievements. Following recommendation of an independent review team, the original set of indicators was reviewed in the middle of 2012 and the number of indicators was reduced to 158.

Graphic 3: HPNSDP - Level of Achievement of the OPs Indicators: 2011-2016



[17] This indicator, which coincides with on IOI#13, measured in the second phase of the Project (HSPD) was surpassed as June 2017.

39. **Graphic 3 shows the level of achievement of the OPs indicators along the Program execution**. In the last three fiscal years of the HPNSDP Program implementation, the level of achievement measured by indicators achieved or partially achieved was 92%, 92% and 89%, respectively.

40. Overall, given the overall achievement against the eight Program key indicators, 32 intermediate indicators and progress against the 158 OP indicators, the efficacy of the Program to which the project contributed is considered to be Substantial.

41. **Efficacy of the DLI Achievements is Substantial**. The DLI approach introduced during the AF has been evaluated as part of the assessment of the Project efficacy. Project disbursement, after the AF, was based on the achievement of the 15 DLRs following the Bank's review and approval[18]. Some DLIs were a subset of the 158 indicators followed by the 32 OPs addressed by the Program. In August, 2017, all 15 DLR's were accomplished according to the available project administrative records, as shown in Table 4. The majority of these DLIs contribute to PDO1 in strengthening health systems. According to the Project documents[19] and based on these records, the efficacy of the DLI achievement is rated as Substantial.

Table 4 – Level of Achievement of the DLR's targets at July, 2017, according the HSDP Project records

Disbursement Linked Indicators (DLIs)	DLRs Targets	DLR Achievement, Date and Source	Level of Achievement
1. Measles Immunization Rate	86.1%	87.4 (CES 2015)	Achieved
2. Deliveries in Public Facilities	400,000	401818 (November 2016, Reports from DGHS and DGFP**)	Achieved
3. Tuberculosis (TB) notification rate for bacteriologically positive cases	69.0 per 100,000	79.17 per 100,000 (DLI 3 verification report)	Achieved
4. Performance of District Health Information System (DHIS2)	Increase by additional 20 CCs	Increased by 11,449 CCs DLI verification report	Achieved
5. Strategic Investment Plan (SIP) for the health sector for the next five years	National (one)	Approval letter of MOHFW	Achieved
6. Standard Guidelines for Medical Waste Management (MWM)	Guidelines Prepared and Disseminated	Guidelines Prepared and Disseminated	Achieved
7. Medical Waste Management in district hospitals	5 District Hospitals	5 DLR Verification Report	Achieved
8. Contract Management Guidelines for Bangladesh Health Sector	Approved	Guideline approved according correspondence of July 2017	Achieved
9. New institutional organogram of the Central Medical Stores Depot (CMSD)	Submitted	Evidence submitted. Approved in May 2017 (World Bank HSDP records)	Achieved
10. Strengthening of procurement procedures	3 actions identified	Actions were identified and new bidding packages were reviewed according these procedures	Achieved
11. Restructuring of the financial management audit unit (FMAU)	Proposal finalized	Proposal finalized. The DLR met on October 2016	Achieved
12. FY2014 internal audit of MOHFW with a time bound action plan	Adopted	Evidence submitted. Approved in April 2017 (World Bank HSDP records)	Achieved
13. Assessment of MOHFW's accounting needs	Done	Bank verified the achievement	Achieved
14. Asset Management pilot	Completed	Bank verified the achievement	Achieved
15. MOHFW's web-based complaint mechanism	Maintained	Maintained DLR 15 verification report	Achieved

[18] 84% of the AF funds were disbursed by July 30, 2017, and the remaining US$20 million were disbursed by August 2017 upon DLRs achievement's verification. The disbursement mechanism of the DLIs will be explained in the Financing Management section of this ICR.

[19] Independent Program Report (APIR), MOHPW, December 2016

42. **The overall efficacy of the Project is based on the combined achievement of the project's indicators (KPIs and IOIs)** performance against DLIs and the overall performance of the Program's 32 OPs. The project not only improved health services but also contributed substantially to strengthening the health systems, improving in large scale the governance of the health institutions at central and local levels. Considering all these complementary elements, the project Efficacy is rated as Substantial for both phases and both parts of the PDO.

C. EFFICIENCY

Assessment of Efficiency and Rating

Rating: Substantial

43. **The HSDP provided gains on efficiency both in technical and allocative terms. A complete analysis of the project efficiency is presented in Annex 4.** Technical efficiency (attaining the most output from a given set of inputs) was achieved by increasing the supply and coverage (scale of economies) of cost-effective health, nutrition and reproductive health services, such as skilled maternal and obstetric care, contraceptive unmet needs, child/infant health and nutrition services. Table 4-1 (Annex 4) shows substantial gains, between 2010-2016, in supplying these services. The Program allocative efficiency (an optimal distribution of goods and services, considering consumer's needs, meaning spending on the right things) led to important reductions in the targeted Burden of Diseases (BoD) in Bangladesh, averting 3.2 million of DALYs lost between 2010 and 2015 (see Table 4-2, Annex 4).

44. **With regards to value for money, the overall cost-benefit analysis of the Program showed an estimated positive internal return rate (IRR).** The gains were calculated as reduction in total days of morbidity and mortality multiplied by average daily per capita GDP. The PAD describes both direct and indirect benefits arising from improving health services and strengthening health system. The same framework was used as an exit point in the economic and financial analysis. Based on the assumptions expressed in Table 4-4 of Annex 4, and with benefits accruing over a 20-year period, the results of economic analysis show a net present value (NPV) of US$14.9 billion, representing an IRR of 19 percent.

45. **With regards to equity, the Program target was to increase the poorest-richest ratio for access to some essential antenatal care services and trained birth delivery by 2016.** The analysis of the Demographic and Health Survey (DHS 2011) and Utilization of Essential Service Delivery (UESD-2016) survey showed that equity was achieved in some relevant variables for maternal, child health and nutrition as reflected by reduced Gini coefficient. Table 4-5 and Graphics 1 to 6 in Annex 4 present detailed evidence about equity gains.

46. **In addition to the gains, the Project improved the administrative efficiency and reduced the Program's transaction costs, by supporting the GOB's SWAp based Program.** Policy dialogue and regular coordination were done through thematic task groups that comprised GOB and DPs. Reliance on existing structures avoided the creation of new set-ups and their associated costs. The pooled funding arrangement was effective. This arrangement also ensured that the DP financing was coordinated to support the GOB's health sector program to achieve its results. Pool funders' meetings were held regularly to provide updates on utilization of resources and fiduciary and implementation issues requiring co-financiers' interventions. With IDA credit of US$508 million and grant funds of US$380 million, the pooled fund contributed 43.6% of the total development budget (US$2

billion) of the sector program and played an important role in achievement of the outcome as well as health care financing. By financing a slice of the GOB's program, the project offered flexibility in the use of funds while ensuring alignment to national priorities. The broad earmarking of funds has helped to ensure the availability and utilization of resources for the intended purposes. The Project's financing was fully disbursed and implemented over the planned period. Allocative efficiency of the project (spending on right things) is significant given the impressive progress made in achieving project outcomes with low amount of resources spent on health. Based on these achievements, the overall rating for efficiency is Substantial.

D. JUSTIFICATION OF OVERALL OUTCOME RATING

47. **The overall outcome rating is Satisfactory.** The rating considers that the project maintained high relevance throughout implementation, the activities financed by the project were substantially efficient and the project efficacy was also substantial in both phases of the project. The project contributed to improving access and quality of public health services in several dimensions and reduced the burden of disease related to maternal health problems and improved access to health and nutrition services to children. Tables 5 and 6 summarize the overall outcome ratings of the project by phase. The weighing criteria is the amount disbursed in each phase. The project disbursed US$723 million (IDA+MDTF+SDTF) and US$150 million (IDA-AF) in phases 1 and 2 respectively.

Table 5 – Summary of the Overall Outcome Ratings

Dimensions	Phase 1 (2011-2016)	Phase 2 (2016-2017)
Relevance of Objective	High	
Efficacy	Substantial	Substantial
(1) PDO 1 (Health Systems strengthened) (2) PDO 2 (Health Services improved, particularly for the poor)	Substantial Substantial	Substantial High
Efficiency	Substantial	
Overall Outcome	H/S/S=Satisfactory (5)	H/S/S=Satisfactory (5)

Table 6 – Overall Outcome Ratings Weighting

	Specification	Phase 1	Phase 2	total
1	Rating	S	S	
2	Rating value	5	5	
3	Total disbursed-US$ million	US$723 million	US$150 million	US$873 million
4	Total disbursed/final disbursed	83%	17%	100%
5	Weigh value-(2 X 4)	4.15	0.85	5
6	Final Outcome Rating	5.00 = S		

E. OTHER OUTCOMES AND IMPACTS (IF ANY)

Gender

48. **Given that the project targeted maternal health conditions and family planning needs, the project had a substantial impact on women's health and wellbeing.** The project was focused on benefits to women in reproductive age as well as on improving job opportunities for women, such as training of nurses, midwifes and community health workers at the village, upazila and district levels. Between 2010 and 2016, women benefited by an increased access to at least 4 prenatal visits (60%), by having birth deliveries attended by trained providers (89%), by receiving tetanus vaccines (35%), by receiving postnatal care for two days after delivery (105%) and by increasing the use of modern contraceptive methods (average 12% in Sylhet and Chittagong areas).

Institutional Strengthening

49. **Substantial improvements have been made to strengthen accountability mechanisms of the MOHFW.** These improvements included: i) restructuring of the Financial Management and Audit Unit (FMAU) of the MOHFW, strengthening fiduciary oversight and ensuring a robust internal control system; ii) development of a web-based asset management system to track and safeguard medical equipment installed in health facilities; iii) expansion of the logistics information system to track stock and usage of family planning commodities in all service delivery points for better monitoring and optimum utilization; iv) development of software to track medicines at community clinics to prevent stock-outs; v) strengthening of District Health Information System for better data reporting, and vi) Implementation of a web-based complaint mechanism at DGHS to improve transparency and bring forward citizen engagements in the health sector.

50. **The contribution of the Project to the MOHFW institutional strengthening is also reflected in the improvement of the hospital management systems**. The Project strengthened secondary- and tertiary-level health care especially in public hospitals by providing effective, affordable, client-centered quality care to poor children and women, and allowing community participation, contributing to establishing patients' rights for health care access. From 2011 to 2016, the number of hospitals that introduced total quality management techniques increased from 3 to 44 and the number of hospitals with standard in-house medical waste management increased from 14 to 20. The number of health units having telemedicine facilities increased from 18 to 59 from 2011 to 2016 and at the end of the project 95% of the health units were providing regular reports to the health information system (HIS).

Poverty Reduction and Shared Prosperity

51. **The main beneficiaries of HSDP were defined as poor and marginalized populations.** The PDO indicator on contraceptive prevalence was specifically focused on the two low performing areas of Sylhet and Chittagong. Also, the PDO indicator on prevalence of underweight among children under five focused on the lowest two wealth quintile groups. The TB indicator added during the AF, is clearly a pro-poor indicator. Considering the second phase, the DLIs were mostly targeted to rural areas, where most of the poor people reside and utilize services from the public health facilities. Last, but not the least, as was analyzed in Annex 4, the HSDP's target was to reduce inequity in health and some of the indicators show a substantial achievement towards this goal. In terms

of shared prosperity, Table 7 shows the improvement of the 40% poorest population in some basic women's health project indicators.

Table 7 – Impact of the HSDP project in some women's health indicators of the 40% Poorest Population: 2010-2016

Indicator	Data for the 40% Poorest Population		
	2010	2016	Increase (%)
Percentage of pregnant women receiving antenatal care during pregnancy	52.0	68.4	31.5
Percentage of birth deliveries in health facilities	13.8	28.9	109.4
Percentage of birth deliveries assisted by medically trained provider	31.1	38.8	24.8

III. KEY FACTORS THAT AFFECTED IMPLEMENTATION AND OUTCOME

A. KEY FACTORS DURING PREPARATION

52. **The GOB's HPNSDP was jointly prepared by the GOB and the DPs.** The Program, like the previous sector program, was to be implemented using a SWAp. There was a high commitment from both the GOB and DPs to jointly support and monitor the implementation of the Program**.**

53. **The Project had strong linkages with the Program and was well designed with realistic, clear and appropriated objectives.** Project preparation used a simple and well-sequenced design, including structured components in total harmony with the Program objectives. Risks and mitigation measures were adequate, up-front and project's Quality Enhancement Review (QER) provided well balanced suggestions in the project design.

54. **The background analysis undertaken for the project preparation was sound**. Lessons from previous programs were taken. The Project prioritized HNP care services with a stronger emphasis on strengthening critical health systems for mothers and children, including planning, health financing, human resource management, information systems, pharmaceutical management and procurement and financial management. To support reforms, a multi-year integrated and consolidated technical assistance plan was being developed and supported separately by DFID and other DPs.

55. **Project preparation was relatively fast. The Project Concept Note Review was held on July 1, 2010 and it was approved by the Bank's Board on May 26, 2011.** A QER of the Project was conducted on January 12, 2010 which provided guidance to the Bank team to refine the Project on the technical design, technical assistance arrangements, fiduciary arrangements and results based financing (RBF). Based on the experience of implementing an RBF component under the previous project, the team included the flexibility of "disbursement for accelerated achievement of results (DAAR)". Accelerated achievement of these results were financed by front loading year 5 allocation of the IDA Credit. Under the DAAR modality, each year the MOHFW and the DPs would agree on a set of results. The Bank would disburse "extra" funds additional to the expenditures incurred during the year for planned activities for achievement of the results early. A total of around US$43 million was disbursed against DAAR achievements which implied that there would be the need for an AF for the fifth year to cover for the resource gap if the DAAR indicators were met.

56. **Given the SWAp arrangement, overall implementation of the project rested on the MOHFW and its various entities,** including the Directorate General of Health Services (DGHS), Directorate General of Family Planning (DGFP), National institute of Population Research and Training (NIPORT), Directorate of Nursing and Education, Directorate General of Drug Administration (DGDA), Central Medical Stores Depot (CMSD), Health Engineering Department (HED) and the Public Works Department (PWD). The implementation arrangement proved effective with 32 Line Directors (LDs) being responsible for the elaboration of Operational Plans (OPs), their implementation, monitoring and the disbursements under the OPs.

57. **During preparation of the AF, a new modality was introduced.** DLIs were introduced two months prior to the Board approval because of the Bank's management considerable concern about weaknesses in the management and fiduciary aspects of the health system, particularly in view of audit observations. As a result, there was not sufficient time to absorb the new modality by the GOB and the donors. The new modality did not, therefore, received the same level of buy-in as with the original SWAp. The ICR team interviews with GOB and DPs indicated that: (a) the introduction of the DLIs was felt by the MOHFW authorities as a top-down decision by the Bank and did not create the right incentives for implementation; (b) the DPs suggested that the GOB was not sufficiently prepared to implement the new financing modality and the DLIs chosen were weak. At the time when the GOB had issued a decree to raise salaries, financing that part of the Program was a questionable approach.

58. **According to the Bank's perspective, the change to DLIs was an opportunity to strengthen the fiduciary and managerial capacity of the MOHFW and to shift focus on results**. At that time, Bangladesh was in the process of being upgraded from an IDA to IBRD eligible country and thus financing should be more linked to results than to inputs. Additionally, given the serious IFA observations, the Bank management was concerned about continuing to rely on the same financing modality and wanted to place greater emphasis on getting results in critical areas of financial management, procurement and safeguards. There was a strong sentiment that after years of using the traditional investment financing, the AF using the new approach was the right instrument to strengthen the fiduciary capacity of the counterpart. Seven out of the fifteen DLIs (contract management guidelines; strengthening of procurement procedures; restructuring of the financial management audit unit (FMAU); internal audits of MOHFW with a time bound action plan; assessment of MOHFW's accounting units; asset management pilot; and MOHFW's web based complaint mechanism) were dedicated for this purpose. This would also pave the way to design and implement future operations using the DLIs modality. Specifically, the Health System Strengthening Project (HSSP) using this new modality was under preparation at the same time and approved in July, 2017, right after the closing of this Project.

B. KEY FACTORS DURING IMPLEMENTATION

59. **There were some critical factors contributing to successful implementation of the HSDP Project. Firstly, there was a strong commitment by the GOB and the DPs to the Program.** They met regularly for joint reviews and policy discussions. The joint coordination was facilitated by various task groups and the Local Consultative Group on Health. Besides the pooling partners, there were very good relations with the non-pooled partners for resource mobilizations. Secondly, agencies which could provide technical assistance including USAID, DFID, UNICEF, GIZ, UNFPA and UNAIDS had harmonized their support to avoid duplication and enhance synergies. Thirdly, planning

and budgeting were done through a participatory process following the Annual Program Review (APR). The process included consultations between MOHFW and the pooling DPs to reach agreement on the share of the Annual Development Plan (ADP) financed by the Project. This ensured evidence based planning and budgeting.

60. **The AF of US$150 million provided by the World Bank not only filled the financing gap but also gave an opportunity to restructure the Project for better outcomes.** Firstly, the restructuring included a realistic revision of the target for KPI#2. Secondly, it paved the way for a DLI-based financing modality with results tied to improving systems including procurement and financial management which had weaknesses as explained below.

61. **During implementation, the Project and the Program were impacted by some broader systemic weaknesses and risks related to the public financial management such as recurring financial irregularities and mis-procurement.** There were limitations in the budget execution processes, linked with lack of skilled and trained staff in financial management in the MOHFW or in the OPs. The original structure of the FMAU of MOHFW was restructured because it was not suitable for the sector program implementation. This unit had to coordinate internally and externally with the Bangladesh Bank, the LDs and field offices and finally with the DPs to monitor expenditures and finalize financial reports. Trained staff, with experience and skills, was difficult to recruit. When they moved to other jobs or retired, it was hard to find their replacement. The FMAU needed to be reorganized with provision for recruitment of skilled personnel in their own set-up. Some audits had identified some big irregularities, resulting in refunds (Source: Assessing Options for Aid Modality 2014).

62. **Following the IFA, risk mitigation measures were identified and an IFA Action Plan was developed jointly to be implemented by the MOHFW**. Some activities of the Plan were included in the DLIs but most of them were introduced in the new HSSP operation supported by the Bank. The Action Plan also initiated reforms in the sector, such as the restructuring of the FMAU.

IV. BANK PERFORMANCE, COMPLIANCE ISSUES, AND RISK TO DEVELOPMENT OUTCOME

A. QUALITY OF MONITORING AND EVALUATION (M&E)

Monitoring and Evaluation (M&E) Design

Rating: Substantial

63. **The Program and the Project's RF were designed by using an extensive set of indicators collected through household surveys and administrative records.** The Project RF provided a sub-set of the broader RF of the GOB's Program. This ensured availability of regular data from household surveys and administrative records to update the RF. This also avoided duplication of efforts and ensured sustainability of the M&E process.

64. **The indicators of the HSDP Project (combined with those from the Program) reflected the main areas of the project support.** Although the project PDO indicators did not explicitly include any indicator on health systems, the intention was to include health system indicators as part of the project IOIs. However, Program indicators provided several key indicators associated with health systems improvement. Ideally, it would have been better

to structure the PDO indicators in line with the two project intended outcomes even though the IOs provided this opportunity.

M&E Implementation

Rating: Substantial

65. **The GOB's management information systems (MIS) and surveys such as the Bangladesh Demographic and Health Survey (BDHS) were used to monitor the indicators.** The information generated through the MIS was supplemented by periodic household surveys including BDHS and UESD surveys.

66. **The MOHFW introduced District Health Information Software version 2 (DHIS2) for collecting aggregated data at all service delivery points of health services and family planning directorates, including community clinics**. This was expected to address the concern around data administration which was mostly paper based and compounded by the fact the two main Directorate Generals (Health Services and Family Planning) were collecting information separately. The AF (as discussed in the subsequent section on "project status") supported strengthening of the DHIS2 by increasing the number of functional community clinics submitting routine data to DHIS2 in a timely manner. Further efforts are being directed to upgrade and strengthen DHIS2, under the Bank's new HSSP operation.

M&E Utilization

Rating: Substantial

67. **The HPNSDP Program and the Project teams used the data for the daily activities of the MOHFW and for planning and interventions.** The regular collection of administrative data to feed the MIS and the constancy in the production, analysis and dissemination of the household surveys was improved significantly, not only in the MOHFW but also at regional managers and local health units. As this would ensure regular data availability, the process supported the GOB to design a new Bank financed Project using the DLI-based financing modality.

Justification of Overall Rating of Quality of M&E

68. **The overall Project rating for M&E is Substantial.** The Program and the Project introduced changes in the culture of using data, not only to monitor and evaluate the Program and the Project's implementation, but also in management and planning. The daily activities of the regional and local services were benefitted from this approach as these units started to take care of data production and to analyze functional problems of the health units and the needs of the beneficiaries based on local data.

B. ENVIRONMENTAL, SOCIAL, AND FIDUCIARY COMPLIANCE

69. **Financial Management –** Like other line ministries in Bangladesh, the MOHFW was impacted by some broader systemic weaknesses and risks related to public financial management. In response to these risks, the MOHFW has pursued several reforms for better alignment with the country systems. Although there is

scope for further improvement at MOHFW, the reforms have helped to strengthen financial accounting, reporting and internal audit oversights of the MOHFW. These reforms included:

a. Outsourcing internal audit review to a private audit firm, financed by the MOHFW. The MOHFW is the only ministry in Bangladesh that has outsourced internal audit to an external audit firm, which indicates great commitment of the ministry to improved accountability;

b. Restructuring the FMAU through increasing its staffing capacity, retaining qualified staff and raising its profile as the strategic unit for risk management and control in MOHFW. The proposal has been approved by the Health and Public Administration Ministry. After the approval from Ministry of Finance, the recruitment of additional staff will start;

c. Approval of an audit strategy (2011-2016) by the MOHFW, with a view to bring about improvement in compliance with policies and procedures and enhanced performance of auditors in conducting annual audit of HSDP, and;

d. Establishment and piloting of an asset management system to address concerns of misuse and underutilization of assets. The system is functioning in one district hospital in Sylhet and the MOHFW has plans to roll-out to all district hospitals in next few years.

70. **A significant risk area affecting the program performance was the recurrence of financial irregularities during the project implementation period.** Annual fiduciary reviews undertaken by the Bank, in addition to the agreed Fiduciary Arrangements for the project (i.e. internal and external audit and procurement audit by the MOHFW), helped in detecting irregularities in the project. The program has undergone several additional fiduciary reviews, like Integrated Fiduciary Review (IFR), FM in-depth review, Integrated Procurement Review, Performance Audit of HIV NGOs, carried out by the Bank which also includes forensic audits by independent firms.

71. **The MOHFW has taken various measures to address irregularities relating to cash management and payment of honoraria/allowances, recovered irregular payments, refunded ineligible expenditures and taken disciplinary action against officials.** Such reviews and actions have had positive impact on certain areas. Despite these progresses, key challenges remain for the future of program performance: (i) system for identifying, reporting, investigating and prosecuting cases of fraud and corruption are formally in place, but in practice are not functioning effectively (ii) weak staffing capacity at the FMAU limiting the MOHFW's internal controls; (iv) underutilization of procured items; (v) slow or ineffective mechanisms for resolving external audit findings; and (vi) inadequate monitoring and administration of procurement contracts.

72. **Ineligible expenditure and refund:** Approximately, US$2.2 million was declared as ineligible expenditure during the implementation period due to financial irregularities and mis-procurement identified by the GOB and Bank audits. This represents 0.26% of the total financing of US$873 million (comprising IDA credit of US$508 million and trust funds of US$365 million). The GOB has refunded the full amount to the Bank.

73. **External audit:** Based on the GOB's audit reports for FY2012-2016, the Bank identified a total of 153 material observations amounting to US$49.3 million, representing 5.6% of total financing of US$873 million (comprising IDA credit of US$508 million and trust funds of US$365 million). The MOHFW has resolved most of the audit issues relating to the first two years of FY2012 and FY2013). Currently there are still 75 outstanding audit issues which include 34 issues in FY2016, 21 in FY2015 and 20 from FY2014. The outstanding audit issues are approximately equivalent to US$22.7 million, which accounts for 2.6% of total financing of US$873 million. These will be followed up by the Bank team during regular policy dialogue in the sector**.**

74. **Procurement:** Significant progress has been made in strengthening the procurement functions of MOHFW. As noted during the MTR, there were no stock-outs of medicines or commodities, reflecting improved procurement planning and management. Capacity building initiatives have resulted in reducing the procurement lead time by 20 weeks. Additionally, the MOHFW has taken several initiatives to improve overall governance in health sector. These include: (a) development of a Procurement and Supply Chain Portal to process approval of procurement plans, monitor processing of procurement packages, track distribution of assets, and monitor status of installed equipment; (b) development of Standard Table of Equipment for various tiers of facilities, identifying the medical equipment needed to deliver services at the facilities; and (c) expansion of the Logistics Management Information System of the Directorate General of Family Planning (DGFP) to service delivery points to track uptake of various family planning commodities and forecast future requirements based on consumption. Given the improvements in the procurement systems, the World Bank's prior review threshold was increased in 2013.

75. **The project remained susceptible to high risks relating to procurement.** The nature of procurement risks changed during the project implementation period, from weak capacity in preparing documents to fraudulent behaviors of bidders. The procurement risks can be characterized in two broad areas. First, there was the upstream process, where there were issues in the transparency and efficiency of procurement, raising concerns about the integrity of the process and about value for money. Second, a few risks needed to be addressed at the downstream process. The Central Medical Stores Depot (CMSD) and the Directorate General of Family Planning (DGFP), the two main procuring entities of the MOHFW, needed strengthening to improve contract monitoring and management.

76. **Environment Safeguards:** The Project design included efforts to develop infrastructure, manpower, and operational capacities of the health care facilities in management of medical waste. In response, an environmental assessment and action plan for HPNSDP was prepared in 2011 by the MOHFW, highlighting the major environmental issues related to medical waste management including patient protection, community protection, disaster management and hospital preparation in emergency, personnel (Staff) protection, safe drinking water, arsenic contamination of drinking water, sanitation, hazardous insecticides/pesticides, construction management and climate change impact issues. In 2014, a review of this Plan's implementation was undertaken by the World Bank and an Environment Safeguards Assessment Report was prepared. Other reports produced by the World Bank's consultants in 2015 and 2016 revealed that besides the issues of medical waste management, there has been lack of oversight of environmental safeguards related to construction/rehabilitation/renovation activities carried out under the original project.

The application of environmental regulations during construction activities carried out during the project period remained very vague. No documentation or progress reports were available to determine whether the environment regulations and monitoring protocol had been adequately followed or applied.

77. **Social Safeguards:** The project design triggered Bank safeguard policy for OP 4.10 "Indigenous people". A Tribal Peoples Framework was developed to address issues of inclusion, participatory design of project intervention, cultural appropriateness, issues of access, through meaningful consultation and communication, awareness raising and mobilization keeping social and cultural norms, gender aspects at the fore. During the Project implementation, several initiatives in social subjects were supported such as violence against women, incorporation of citizens' voice and partnership with NGOs to support pilots on gender equity and inclusion. The Project, with the participation of DPs, supported several consultations meetings to address issues raised by local, ethnic/tribal communities and give them a voice in project design through the incorporation of feasible recommendations and suggestions, especially with regards to access to community clinics. The final consultation was held at Dhaka on March 14, 2017, with representatives from different districts. During these meeting, stakeholders expressed that ethnic and gender equity has improved substantially due to the inclusion and gender mainstreaming in health sector specially after the issuance of the 2014-2024 Gender Equity and Action Plan. This plan will strengthen the gender and inclusion aspects in line with policies. There is a recognition that the GOB has made progress in the health sector with regards to access to services for vulnerable groups. However, the main problem is the acute shortage of human resources at every level of service delivery and the lack of arrangements for the distribution of necessary medicines and supplies in a timely manner. While the preparation of site specific Tribal Peoples Plans did not always follow the desired format or documentation requirements of the Bank's approved Framework, the client did develop their own Tribal Peoples Health Plan and effectively implemented as a GOB plan. This covered the essential aspects of the Framework. No land acquisition, or involuntary displacement of people, or adverse livelihood impacts occurred due to project interventions.

C. BANK PERFORMANCE

Quality at Entry

Rating: Moderately Satisfactory

78. **The original project was prepared relatively fast with a solid design**. As discussed above, the project was prepared with lessons learned from previous two SWAps, and incorporated recommendations in the internal Bank's quality review process. The project incorporated analytical and data evidence from the previous projects. It was prepared in close collaboration with GOB and DPs and was well aligned with the GOB's health program.

79. **Preparation of AF was lengthy and complicated.** The AF took almost two years to be prepared and approved. The GOB's request was received in November 2014 and the Project was approved in April, 2016. There were two project concept notes and two decision meetings prior to approval. This was necessary because of the changed modality of financing and also because of the concerns raised in the IFA which had to be addressed using DLI-based approach. Before the AF approval, there was some disagreement between the GOB, DPs

and the Bank. The Bank management requested the project team to change the disbursement modality to DLIs to address the fiduciary concerns raised in the IFA. While the intention behind this request may have been justifiable, this meant that with one year left in the project, the GOB had to shift to a new methodology for project implementation.

80. **The GOB and the DP's were concerned with the Bank's decision to move the disbursement modality to DLIs.** Firstly, there was not enough time for consultation and understanding the incentive structure for MOHFW to implement the DLIs. Secondly, the DPs also felt that the targets proposed for the DLIs were not sufficiently rigorous. However, the AF was only intended for a year and hence the targets had to adjusted to what could reasonably be achieved in one year.

81. **Another issue raised by the DPs collectively was the decision to include the reimbursement against salaries under categories of eligible expenditure**. The DPs said they simply could not support this because the GOB's decree was issued to increase salaries and hence it did not make sense to finance that part of the program. The DPs also felt that this would not allow them to track the veracity of the expenditures linked to results. In addition, the Bank requested the DPs to help verify some DLIs. The DPs interviewed by the ICR mission team felt that this was not appropriate and it should have been done by a third party. Whether the DPs' sentiments about the Bank's methodology were justified, these were important inputs for the Bank team to consider.

82. **Overall, the rating for the Bank quality at entry is Moderately Satisfactory.** The issues associated with the delays in the AF approval and the relationship with the GOB and the DPs on the transition for a new financing modality for the Project (DLIs) lead the Bank's performance on the Project quality at entry to be classified as Moderately Satisfactory.

Quality of Supervision

Rating: Satisfactory

83. **Given the Project complexity, the Government and DPs recognized the good performance of the Bank's supervision.** The management of the pooled funds under the MDTF and SDTF and the fiduciary oversight of the HSDP was quite complex. This task represented a tremendous effort of coordination and diplomacy. The Bank team conducted joint missions with the DPs for annual Program reviews and this coordination has been highly recognized by all DPs as exemplary, except during the preparation of the AF, as discussed above**.** The Bank team had a strong relationship with the donor community in Bangladesh, and all DPs commented that the Bank team did excellent work leading the supervision of the HSDP. This engagement formed a strong relationship with the Government and fostered the generation of a single voice among partners during technical and policy discussions.

84. **The Bank team's efforts on technical advisory and fiduciary management led the project to achieve excellent results.** The Bank's team oversight was a critical support to identify and manage fiduciary risk, provide technical input to discussions and technical support to improve overall financial management of the MOHFW. Bank's role was noteworthy for establishing more transparent procurement systems, creating

different discussion platforms between the DPs and the government, initiating processes to improve sector governance, M&E systems and health indicators and preparing the MOHFW for another wave of results.

Justification of Overall Rating of Bank Performance

Rating: Satisfactory

85. **Considering the satisfactory Project outcome rating and the satisfactory quality of the project supervision, the project rating is Satisfactory.**

D. RISK TO DEVELOPMENT OUTCOME

Rating: Moderate

86. **The risk to development outcome is assessed as Moderate.** The Government has approved a new five-year program in the health sector (January 2017- June 2022)**.** The estimated budget for this program has greatly increased in nominal terms from US$8.2 billion to US$14.7 billion. The GOB and the MOHFW are committed to achieve the Sustainable Development Goals (SDGs) and to implement the requirement to achieve UHC, tackling the emerging problem of the NCDs. Given that the Bangladesh's economy is growing and with continued commitment of the GOB to increase the health budget and the continued support of the DPs and the Bank to the health sector in coming years, the development outcomes are expected to be sustained.

87. **The HSDP is followed by the forth Bank supported health sector project, namely HSSP which was approved in July 2017, in the amount of US$500 million. This new Project will support the new GOB sector program 2017-2022.** The overall objective of this new GOB's Health, Population, and Nutrition Sector Program is "to ensure that all citizens of Bangladesh enjoy health and well-being by expanding access to quality and equitable health care in a healthy and safe living environment." The MOHFW considers it as the first and foundational program toward the achievement of the SDGs by 2030**.**

88. **At the time of approval of the new project, the DPs are completing their country engagement and appraisal process**. The expectation is that five DPs will contribute to a new Multi-Donor Trust Fund, managed by the Bank and to co-finance the new operation in support of the GOB's fourth HNP sector program. The total value of funds is expected to be up to $200 million equivalent. The value is less than the previous program, but remains a high commitment given Bangladesh's increasing level of development and the changing foreign aid priorities of different DPs. Considering the lessons learned during the AF phase of HSDP, the DPs were consulted continuously during the preparation of the new operation. Several DPs still have questions about the DLI-based modality of disbursement because this is different from the modality of their previous support under the SWAp pooling arrangement and it is also relatively new to the client. The Bank and the DPs have agreed to ensure continual consultation during implementation to help them improve their understanding and build their confidence in the value of the DLI-based financing mechanism.

89. **Another risk to the sustainability of the Project is related with the capacity of the health system in Bangladesh.** Despite the institutional strengthening brought by the Project and the Program, the MOHFW

still needs to make progress in coordination within the public sectors (among the two divisions of the MOHFW and with other ministries) and the growing private sector ensuring proper skill mix within the human resources for health and synchronizing the new/upgraded infrastructure with the required human resources and other logistics. To mitigate this risk, the Fourth Health, Population and Nutrition Sector Program (January 2017 to June 2022) approved in March 2017 and costed at US$14.7 billion is expected to improve equity, quality and efficiency with a view to gradually moving towards Universal Health Coverage (UHC) and achieving health related Sustainable Development Goals (SDGs). Under this Program, the GOB's share of the has increased from 84% (compared to 62% in the first SWAP), representing more public funds to assure the Project sustainability.

V. LESSONS AND RECOMMENDATIONS

90. The following lessons learned and recommendations from the Project and the Program are intended to inform future World Bank financed operations.

Managing Pooled funds for Health

91. **The long-term partnership between the GOB and DPs has been key to providing confidence and funds for implementing successful HNP programs in Bangladesh.** The HPNSDP was the third consecutive health sector program in Bangladesh and has been implemented since July 2011. DPs had jointly developed the Program with the GOB. The priorities for the sector were identified together with goals and targets defined for the five-year Program. This partnership provided confidence to DPs in financially and technically supporting the Program.

92. **The Bank has accumulated experience in managing pooled funding arrangements in the health sector, and the experience of Bangladesh should be a benchmark to other countries.** The Bank supported the GOB's Program through the HSDP. Others including CIDA, UNFPA, SIDA, KFW, EKN and DFID pooled their resources into an MDTF, and USAID into a SDTF, to support the Program. The MDTF and the SDTF were both managed by the Bank. The pooling partners relied on the Bank's overall fiduciary expertise for their support to the Program. This kind of aid modality to support major GOB programs works well when there is a consistent approach in methods and goals**.**

93. **Coordination and consultation mechanisms among the Bank and the DPs were essential to avoid fragmentation/duplication of efforts and to reduce transaction costs.** The Bank minimized the risk of delays in HSDP implementation by conducting joint missions and providing coordinated technical assistance with different partners leading different themes. Having a Local Consultative Group on Health was essential to enhance coordination and harmonization of support. It was observed that in large programs, with multiple pooling partners, it is critical to maintain regular engagement and dialogue through mission announcements, joint meetings, consultations about changes and post mission letters.

94. **In large programs, such as this, constant communication and engagement among the DPs and the GOB is essential to introduce any change.** Collective action among DPs and the GOB has been shown, in many countries, as one of the key factors to increase efficiency by pooled financing, to avoid duplication on the use

of the funds, to reduce transaction costs for the GOB and the DPs and to scale up the results of external aid. Interactive mechanisms of consultation and shared decisions are the most essential way to maintain a productive partnership based on trust and aligned with the country's development needs.

Changing the Financial Modality in the Middle of Project Implementation

95. **The DLI approach should be based on budgetary incentives associated with the achievement of results.** However, in Bangladesh budgets for the health sector program were pre-financed by the Ministry of Finance (MOF) in the beginning of each fiscal year. Some GOB officials expressed that this limited the staff's incentive to work on the DLIs. Therefore, teams should discuss with MOF and line ministries to ensure that a robust incentive structure is in place.

96. **The DLI approach requires an outcome- focused action plan and critical indicators necessary to achieve results**. In this project, DLIs, despite having been fully achieved, might have been more rigorous. The reason for this relative lack of rigor may have been due to the fact that there was only one year of implementation remaining at the time that DLIs were introduced. However, for any system reforms, all the critical actions needed to sustain the reforms should be achieved in order for the reform to be successful. In a DLI approach, it is essential that all the milestones to achieve reform are integrated into the DLI targets.

97. **The successful achievement of DLI targets is enhanced through the provision of technical support.** The achievement of the DLIs in the Project were effectively supported through the technical and analytical support coordinated by the DPs for improved service delivery and strengthened health systems. To support the achievement of results, future Bank operations using a DLI-based approach should ensure the availability of similar support for the government to enhance capacity, to strengthen the planning processes and to align the right technical inputs with the execution of planned activities.

ANNEX 1. RESULTS FRAMEWORK AND KEY OUTPUTS

A. RESULTS INDICATORS

A.1 PDO Indicators

Objective/Outcome: The objective of the Project is to enable the GOB to strengthen health systems and improve health services, particularly for the poor.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Coverage of modern contraceptives in low performing areas of Bangladesh -- Sylhet	Percentage	35.70 31-Dec-2010	50.00 30-Jun-2016	42.00 30-Jun-2017	42.60 30-Jun-2017

Comments (achievements against targets): Phase 1: NOT ACHIEVED (37%)
Phase 2: SURPASSED (110%)
The original indicator was split in two indicators after AF and restructuring covering separately the same areas. End target extended from June 2016 to June 2017. End targets were reduced from 50% to 42% in Sylhet.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Coverage of modern contraceptives in low performing areas of Bangladesh -- Chittagong	Percentage	46.80 31-Dec-2010	50.00 30-Jun-2016	48.00 30-Jun-2017	48.50 30-Jun-2017

Comments (achievements against targets): Phase 1: NOT ACHIEVED (6%)
Phase 2: SURPASSED (142%)
The original indicator was split in two indicators after AF and restructuring covering separately the same areas. End target extended from June 2016 to June 2017. End targets were reduced from 50% to 48% in Chittagong.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Proportion of delivery by skilled birth attendant among the lowest two wealth quintile groups	Percentage	11.50 31-Dec-2010	15.00 30-Jun-2016	15.00 30-Jun-2017	33.60 30-Jun-2017

Comments (achievements against targets): Phase 1: SURPASSED (328%)
Phase 2: SURPASSED (631%)
End target extended from June 2016 to June 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Prevalence of underweight among children under 5 years of age among the lowest two wealth quintile groups	Percentage	48.30 31-Dec-2007	43.30 30-Jun-2016	43.30 30-Jun-2017	43.30 30-Mar-2017

Comments (achievements against targets): Phase 1: SURPASSED (134%)
Phase 2: ACHIEVED (100%)
End target extended from June 2016 to June 2017.

A.2 Intermediate Results Indicators

Component: Component 1: Improving Health Services

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Tuberculosis case notification rate for bacteriologically positive cases	Number	68.00 10-Apr-2016	69.00 30-Jun-2017		76.95 30-Jun-2017

Comments (achievements against targets): Phase 2: SURPASSED (900%)

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Proportion of births in health facilities	Percentage	23.70 31-Dec-2010	40.00 30-Jun-2016	40.00 30-Jun-2017	45.00 30-Jun-2017

Comments (achievements against targets): Phase 1: PARTIALLY ACHIEVED (84%)
Phase 2: SURPASSED (131%)
End target extended from June 2016 to June 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion

Number of functional Community Clinics	Number	10323.00 31-Jan-2011	13500.00 30-Jun-2016	13500.00 30-Jun-2017	13006.00 30-Jun-2017

Comments (achievements against targets): Phase 1: ACHIEVED (90%)
Phase 2: ACHIEVED (85%)
End target extended from June 2016 to June 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Coverage of Measles Immunization for children under 12 months of age	Percentage	82.40 31-Dec-2009	90.00 30-Jun-2016	86.10 30-Jun-2017	86.60 30-Jun-2017

Comments (achievements against targets): Phase 1: NOT ACHIEVED (51%)
Phase 2: SURPASSED (114%)
End target extended from June 2016 to June 2017. End target reduced from 90 to 86.1 to be compatible with Project DLIs agreed with GOB.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Proportion of infants exclusively breastfed up to 6 months of age	Percentage	43.00 31-Dec-2007	50.00 30-Jun-2016	50.00 30-Jun-2017	60.00 30-Jun-2017

Comments (achievements against targets): Phase 1: SURPASSED (176%)

Phase 2: SURPASSED (243%)
End target extended from June 2016 to June 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Proportion of postnatal care for women within 48 hours (at least 1 visit)	Percentage	20.90 31-Dec-2010	50.00 30-Jun-2016	50.00 30-Jun-2017	43.00 30-Jun-2017

Comments (achievements against targets): Phase 1: NOT ACHIEVED (51%)
Phase 2: PARTIALLY ACHIEVED (76%)
End target extended from June 2016 to June 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Births (deliveries) attended by skilled health personnel (number)	Number	103229.00 30-Dec-2010	134647.00 30-Jun-2016	134647.00 30-Jun-2017	206458.00 30-Jun-2017

Comments (achievements against targets): Phase 1: SURPASSED (329%)
Phase 2: SURPASSED (329%)
End target extended from June 2016 to June 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Children immunized (number)	Number	2964494.00 30-Jun-2016	3719011.00 30-Jun-2017	3719011.00 30-Jun-2017	3719011.00 30-Mar-2017
Children immunized - under 12 months against DTP3 (number)	Number	3359760.00 30-Dec-2010	3670254.00 30-Jun-2017		3670254.00 30-Jun-2017
Children immunized - under 5 years against Polio (number)	Number	18755207.00 30-Dec-2010	20488480.00 30-Jun-2017		20488480.00 30-Jun-2017

Comments (achievements against targets): Phase 1: ACHIEVED (100%)
Phase 2: ACHIEVED (100%)
End target extended from June 2016 to June 2017.

Component: Component 2: Strengthened Health Systems

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
MOHFW's web-based complaint mechanism	Text	Web-based complaint mechanism established 10-Apr-2016	Web-based complaint mechanism maintained by DGHS 30-Jun-2017	.	Web-based complaint mechanism maintained by DGHS. 30-Jun-2017

Comments (achievements against targets): Phase 2: ACHIEVED
MOHFW's web-based complaint mechanism managed by DGHS

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Proportion of physician positions vacant at upazila/district level and below	Percentage	45.70 31-Dec-2009	22.80 30-Jun-2016	22.80 30-Jun-2017	37.80 30-Jun-2017

Comments (achievements against targets): Phase 1: ACHIEVED (69%); average between Partially Achieved and Surpassed
Phase 2: NOT ACHIEVED (34%)
The original indicator was split in two indicators after AF and restructuring covering separately the same areas. End target extended from June 2016 to June 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Proportion of nurse positions vacant at upazila/district level and below	Percentage	29.90 31-Dec-2009	15.00 30-Jun-2016	15.00 30-Jun-2017	19.30 30-Jun-2017

Comments (achievements against targets): Phase 1: ACHIEVED (117%); average between Partially Achieved and Surpassed
Phase 2: PARTIALLY ACHIEVED (73%)
The original indicator was split in two indicators after AF and restructuring covering separately the same areas. End target extended from June 2016 to June 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Number of functional Community Clinics	Number	10323.00 31-Jan-2011	13500.00 30-Jun-2016	13500.00 30-Jun-2017	13006.00 30-Jun-2017

Comments (achievements against targets): Phase 1: ACHIEVED (90%)
Phase 2: ACHIEVED (85%)
End target extended from June 2016 to June 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Proportion of annual work plans with budgets submitted by LDs by defined time period (July/Aug)	Percentage	0.00 31-Jan-2011	100.00 30-Jun-2016	100.00 30-Jun-2017	100.00 30-Jun-2017

Comments (achievements against targets): Phase 1: ACHIEVED (100%)
Phase 2: ACHIEVED (100%)
End target extended from June 2016 to June 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Proportion of health	Percentage	66.10	75.00	75.00	78.70

facilities, by type, without stock-outs of essential medicines		31-Dec-2009	30-Jun-2016	30-Jun-2017	30-Jun-2017

Comments (achievements against targets): Phase 1: ACHIEVED (85%)
Phase 2: SURPASSED (142%)
End target extended from June 2016 to June 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Proportion of serious audit objections settled within the last 12 months	Percentage	7.00 31-Dec-2009	80.00 30-Jun-2016	80.00 30-Jun-2017	68.00 30-Jun-2017

Comments (achievements against targets): Phase 1: PARTIALLY ACHIEVED (84%)
Phase 2: PARTIALLY ACHIEVED (84%)
End target extended from June 2016 to June 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Proportion of Operational Plans with expenditure > 80% of ADP allocation (annually)	Percentage	44.70 31-Jan-2011	100.00 30-Jun-2017	100.00 30-Jun-2017	34.00 30-Mar-2017

Comments (achievements against targets): Phase 1: NOT ACHIEVED (44%) - actual achieved lower than baseline

Phase 2: NOT ACHIEVED (34%) - actual achieved lower than baseline
End target extended from June 2016 to June 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Health personnel receiving training (number)	Number	0.00 30-Jun-2016	810000.00 30-Jun-2017	810000.00 30-Jun-2017	558587.00 30-Jun-2017

Comments (achievements against targets): Phase 1: SURPASSED (105%)
Phase 2: SURPASSED (105%)
End target extended from June 2016 to June 2017. The total number of the trained health personnel exceeded to 852, 215 (42,215 above target).

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Number of additional service providers trained in midwifery at district and upazila health facilities	Number	0.00 30-Jun-2016	3000.00 30-Jun-2017		2025.00 30-Jun-2017

Comments (achievements against targets): Phase 1: NOT ACHIEVED (50%)
Phase 2: PARTIALLY ACHIEVED (68%)
End target extended from June 2016 to June 2017.

B. KEY OUTPUTS BY COMPONENT

Objective/Outcome 1 - Improved Health services	
Outcome Indicators	1. Coverage of modern contraceptives in low performing areas of Bangladesh -- Sylhet 2. Coverage of modern contraceptives in low performing areas of Bangladesh – Chittagong 3. Proportion of delivery by skilled birth attendant among the lowest two wealth quintile groups 4. Prevalence of underweight among children under 5 years of age among the lowest two wealth quintile groups
Intermediate Results Indicators	1. Tuberculosis case notification rate for bacteriologically positive cases 2. Proportion of births in health facilities 3. Coverage of Measles Immunization for children under 12 months of age 4. Proportion of infants exclusively breastfed up to 6 months of age 5. Proportion of postnatal care for women within 48 hours (at least 1 visit)
Key Outputs by Component (linked to the achievement of the Objective/Outcome 1)	1. Children immunized (number) 2. Children immunized - under 12 months against DTP3 (number) 3. Children immunized - under 5 years against Polio (number) 4. Births (deliveries) attended by skilled health personnel (number)

Objective/Outcome 2 - Strengthened Health Systems	
Outcome Indicators	No outcome indicators
Intermediate Results Indicators	1. Proportion of physician positions vacant at upazila/district level and below 2. Proportion of nurse positions vacant at upazila/district level and below 3. Proportion of annual work plans with budgets submitted by LDs by defined time period (July/Aug) 4. Proportion of health facilities, by type, without stock-outs of essential medicines 5. Proportion of serious audit objections settled within the last 12 months 6. Proportion of Operational Plans with expenditure > 80% of ADP allocation (annually)
Key Outputs by Component (linked to the achievement of the Objective/Outcome 2)	1. MOHFW's web-based complaint mechanism 2. Health personnel receiving training (number) 3. Number of additional service providers trained in midwifery at district and upazila health facilities 4. Number of functional Community Clinics

ANNEX 1A – RESULTS FRAMEWORK – EFFICACY

Ratings Methodology

1. Levels of Achievement: The methodology to define the level of achievement of each indicator is the following. For quantitative indicators, the actuals registered at the end of the project are compared with their expected targets. If it results, for each indicator, an achievement above 100% of the expected target, the level of achievement is surpassed. If it is between 85% and 100%, it is classified as achieved. If it is between 65% and 84%, it is classified as partially achieved and if it is lower than 65 percent, it is classified as not achieved. For qualitative indicators (such as the issuance of a law or norm, the creation of an institution or contracting a consulting firm) the accomplishment is simply classified as achieved (target accomplished) or not achieved (target not accomplished).

2. Achievement calculation formula: The criteria used to calculate the achievement of each indicator is the following. If the baseline is not zero, the percentage of achievement is the difference between what was intended (baseline) and actuals, divided by the difference between the target and the baseline. If the baseline is zero, the level of achievement is the coefficient between the actual value and the target. If the target is lower than the baseline, it is the coefficient between the actual and the baseline. [20]

Results or the HSDP Efficacy Rating

3. Tables below summarize the results of the HSDP project efficacy, a can be seen, the level of the achievement of the Project PDOs was considered substantial uniformly for each PDO in phase 1 and substantial and high for PDO2, in phases 1 and 2, respectively. As result, *the efficacy of the Project is classified as Substantial*.

Table 1A-1 – Summary Table of Indicators' Achievement (Based on Data from Tables 1A-2 and 1A-3)

Rating Categories and Corresponding Points of Intervals	Phase 1		Phase 2	
	KPIs	IOIs	KPIs	IOIs
Surpassed (>100%)	-	1	-	2
Achieved (85% to 100%)	-	4	-	2
Partially Achieved (65% to 84%)	-	1	-	2
Not Achieved (<65%)	-	2	-	2
Total PDO 1 – Strengthen Health Systems	-	8	-	8
% Achieved, Surpassed and Partially Achieved	**-**	**78%**	**-**	**81%**
Surpassed (>100%)	2	2	3	5
Achieved (85% to 100%)		2	1	2
Partially Achieved (65% to 84%)	-	1	-	1
Not Achieved (<65%)	1	2	-	-
Total PDO 2 – Improving Health Systems	3	7	4	8
% Achieved, Surpassed and Partially Achieved	**100%**	**82%**	**137%**	**128%**

(*1) – Success rate is the percentage of indicators surpassed, achieved or partially achieved as a share of the total project indicators. A weighted average was calculated using the following scale: Surpassed=1.5 times; Achieved=1.0 times and Partially achieved=0.75 times.

Table 1A-2. Status of the Indicators Per Achievement – Phase 1

Indicators	Value and Date of the Indicator Baseline (1)	Value of the Indicator Target (2)	Actual Values of the Indicator (3) Mid-2016	Ratio of Achievement (4)	Indicator Level of Achievement (5)
KPIs					
KP1#1 - Proportion of delivery by skilled birth attendant among the lowest two wealth quintiles **(PDO2)**	11.5%	15.0%	23%	328%	Surpassed
KPI#2A - Coverage of modern contraceptives in the low performing areas of Bangladesh – Sylhet **(PDO2)**	35.7%	50.0%	41%	37%	Not Achieved
KPI#2B - Coverage of modern contraceptives in the low performing areas of Bangladesh – Chittagong **(PDO2)**	46.8%	50.0%	47%	6%	
KPI#3 - Prevalence of underweight among children under 5 years of age among the lowest two wealth income groups **(PDO2)**	48.3%	43.3%	41.6%	134%	Surpassed
IOIs					
IOI#1 - Proportion of births in health facilities **(PDO2)**	23.7%	40.0%	37.4%	84%	Partially Achieved
IOI#2 - Number of functional Community Clinics **(PDO1)**	10323	13500	13194	90%	Achieved
IOI#3 - Coverage of measles immunization for children under 12 months' age **(PDO2)**	82.4%	90.0%	86.1%	51%	Not achieved
IOI#4 - Proportion of infants exclusively breastfed up to 6 months of age **(PDO2)**	43.0%	50.0%	55.3%	176%	Surpassed
IOI#5 - Proportion of postnatal care for women within 48 hours (at least 1 visit) **(PDO2)**	20.9%	50.0%	36%	52%	Not Achieved
IOI#6 - Proportion of annual work plans with budgets submitted by LDs by defined time period (July/Aug). **(PDO1)**	0%	100%	100%	100%	Achieved
IOI#7A - Proportion of physician position vacant at upazila/District level and below **(PDO1)**	45.7%	22.8%	29.9%	69%	Achieved (average between PA and S)
IOI#7B - Proportion of nurse position vacant at upazila/District level and below **(PDO1)**	29.9%	15.3%	12.8%	117%%	
IOI#8 - Proportion of health services by type without stock-outs of essential medicines **(PDO1)**	66.1%	75.0%	73.6%	85%	Achieved
IOI# 9 - Number of additional service providers trained by midwifery at District and upazila health facilities **(PDO1)**	0	3000	1487	50%	Not Achieved
69IOI#10 - Proportion of serious audit objections settled within at least 12 months **(PDO1)**	7%	80%	68%	84%	Partially achieved
IOI#11 - Proportion of OPs with expending > 80% of ADP allocation **(PDO1)**	44.7%	100.0	69%	44%	Not achieved
IOI#12 - Health personal receiving training (number) **(PDO1)**	0	810000	852215	105%	Surpassed

[20] *A= (Ia-Ib)/(It-Ib)*, where *A* is achievement, *Ia* is indicator's actual; *Ib* is indicator's baseline, and *It* is indicator's target.

IOI#13 - Births (delivery) attended by skilled health personnel (number) **(PDO2)**	103229	134647	206458	328%	Surpassed
IOI#14 - Children immunized – under 12 months – against DPT3 (number) **(PDO2)**	3359760	3670254	3670254	100%	Achieved
IOI#15 - Children immunized – under 5 years – against Polio (number) **(PDO2)**	18755207	20488480	20488480	100%	Achieved

Notes: (1) Baselines were obtained from the PADç (2) Value and date of the indicator final targets are obtained from the PAD; (3) According Project ISR 2016; (4) A= (Ia-Ib)/(It-Ib), where A is achievement, Ia is indicator's actual; Ib is indicator's baseline, and It is indicator's target; (5) See rating categories at table 1A-1.

Table 1A-3. Status of the Indicators Per Achievement – Phase 2

Indicators	Value and Date of the Indicator Baseline (1)	Value of the Indicator Target (2)	Actual Values of the Indicator (3) Mid-2017	Ratio of Achievement (4)	Indicator Level of Achievement (5)
KPIs					
KP1#1 - Proportion of delivery by skilled birth attendant among the lowest two wealth quintiles **(PDO2)**	11.5%	15.0%	33.6%	631%	Surpassed
KPI#2A - Coverage of modern contraceptives in the low performing areas of Bangladesh – Sylhet **(PDO2)**	35.7%	42.0%	42.6%	110%	Surpassed
KPI#2B - Coverage of modern contraceptives in the low performing areas of Bangladesh – Chittagong **(PDO2)**	46.8%	48.0%	48.5%	142%	Surpassed
KPI#3 - Prevalence of underweight among children under 5 years of age among the lowest two wealth income groups **(PDO2)**	48.3%	43.3%	43.3%	100.0%	Achieved
IOIs					
IOI#1 - Proportion of births in health facilities **(PDO2)**	23.7%	40.0%	45.0%	131%	Surpassed
IOI#2 - Number of functional Community Clinics **(PDO1)**	10323	13500	13006	85%	Achieved
IOI#3 - Coverage of measles immunization for children under 12 months' age **(PDO2)**	82.4%	86.1%	86.6%	114%	Surpassed
IOI#4 - Proportion of infants exclusively breastfed up to 6 months of age **(PDO2)**	43.0%	50.0%	60.0%	243%	Surpassed
IOI#5 - Proportion of postnatal care for women within 48 hours (at least 1 visit) **(PDO2)**	20.9%	50.0%	43.0%	76%	Partially Achieved
IOI#6 - Proportion of annual work plans with budgets submitted by LDs by defined time period (July/Aug). **(PDO1)**	0%	100%	100%	100%	Achieved
IOI#7A - Proportion of physician position vacant at upazila/District level and below **(PDO1)**	45.7%	22.8%	37.8%	34%	Not Achieved
IOI#7B - Proportion of nurse position vacant at upazila/District level and below **(PDO1)**	29.9%	15.3%	19.3%	73%	Partially Achieved
IOI#8 - Proportion of health services by type without stock-outs of essential medicines **(PDO1)**	66.1%	75.0%	78.7%	142%	Surpassed
IOI# 9 - Number of additional service providers trained by midwifery at District and upazila health facilities **(PDO1)**	0	3000	2025	68%	Partially Achieved
69IOI#10 - Proportion of serious audit objections settled within at least 12 months **(PDO1)**	7%	80%	68%	84%	Partially achieved
IOI#11 - Proportion of OPs with expending > 80% of ADP allocation **(PDO1)**	44.7%	100.0	34%	Negative	Not achieved

IOI#12 - MOHFW's web-based complaint mechanism **(PDO1)**	Web-based complaint mechanism established (2016)	Web-based complaint mechanisms maintained by DGHS	Web-based complaint mechanisms maintained by DGHS	100%	Achieved
IOI#13 - Tuberculosis case notification rate for bacteriologically positive cases **(PDO2)**	68%	69%	77%	900%	Surpassed
IOI#14 - Health personal receiving training (number) **(PDO1)**	0	810000	852215	105%	Surpassed
IOI#15 - Births (delivery) attended by skilled health personnel (number) **(PDO2)**	103229	134647	206458	329%	Surpassed
IOI#16 - Children immunized – under 12 months – against DPT3 (number) **(PDO2)**	3359760	3670254	3670254	100%	Achieved
IOI#17 - Children immunized – under 5 years – against Polio (number) **(PDO2)**	18755207	20488480	20488480	100%	Achieved

Notes: (1) Baselines were obtained from the PADç (2) Value and date of the indicator final targets are obtained from the PAD; (3) According last Project ISR; (4) A= (Ia-Ib)/(It-Ib), where A is achievement, Ia is indicator's actual; Ib is indicator's baseline, and It is indicator's target; (5) See rating categories at table 1A-1.

Table 1A.4 – Changes in the HSDP Results Framework Introduced by the AF

Original Project Indicators According the PAD (2011)	Project Indicators after AF and Restructuring (2016)	Comments
KEY PERFORMANCE INDICATORS (KPIs)		
Proportion of delivery by skilled birth attendant among the lowest two wealth quintiles	Proportion of delivery by skilled birth attendant among the lowest two wealth quintiles	End target extended from June 2016 to June 2017.
Coverage of modern contraceptives in the low performing areas of Sylhet and Chittagong	A. Coverage of modern contraceptives in the low performing areas of Bangladesh – Sylhet B. Coverage of modern contraceptives in the low performing areas of Bangladesh – Chittagong.	The original indicator was split in two indicators after AF and restructuring covering separately the same areas. End target extended from June 2016 to June 2017. End targets were reduced from 50% to 42% in Sylhet and to 48% in Chittagong.
Prevalence of underweight among children under 5 years of age among the lowest two wealth income groups	Prevalence of underweight among children under 5 years of age among the lowest two wealth income groups	End target extended from June 2016 to June 2017
INTERMEDIATE OUTCOME INDICATORS (IOIs)		
Proportion of births in health facilities	Proportion of births in health facilities	End target extended from June 2016 to June 2017
Number of functional Community Clinics	Number of functional Community Clinics	End target extended from June 2016 to June 2017
Coverage of measles immunization for children under 12 months' age	Coverage of measles immunization for children under 12 months' age	End target extended from June 2016 to June 2017. End target reduced from 90 to 86.1 to be compatible with Project DLIs agreed with GOB.
Proportion of infants exclusively breastfed up to 6 months of age	Proportion of infants exclusively breastfed up to 6 months of age	End target extended from June 2016 to June 2017
Proportion of postnatal care for women within 48 hours (at least 1 visit)	Proportion of postnatal care for women within 48 hours (at least 1 visit)	End target extended from June 2016 to June 2017
Proportion of annual work plans with budgets submitted by LDs by defined time period (July/Aug)	Proportion of annual work plans with budgets submitted by LDs by defined time period (July/Aug)	End target extended from June 2016 to June 2017
Proportion of vacant service provider positions at upazila/District level and below, by category	A. Proportion of physician position vacant at upazila/District level and below B. Proportion of nurse position vacant at upazila/District level and below	The original indicator was split in two indicators after AF and restructuring covering separately the same areas. End target extended from June 2016 to June 2017

Proportion of health services by type without stock-outs of essential medicines	Proportion of health services by type without stock-outs of essential medicines	End target extended from June 2016 to June 2017
Number of additional service providers trained by midwifery at District and upazila health facilities	Number of additional service providers trained by midwifery at District and upazila health facilities	End target extended from June 2016 to June 2017
Proportion of serious audit objections settled within at least 12 months	Proportion of serious audit objections settled within at least 12 months	End target extended from June 2016 to June 2017
Proportion of OPs with expending > 80% of ADP allocation	Proportion of OPs with expending > 80% of ADP allocation	End target extended from June 2016 to June 2017
	MOHFW's web-based complaint mechanism	New Indicator
	Tuberculosis case notification rate for bacteriologically positive cases	New Indicator
Health personal receiving training (number)	Health personal receiving training (number)	No change
Births (delivery) attended by skilled health personnel (number)	Births (delivery) attended by skilled health personnel (number)	No change
Children immunized – under 12 months – against DPT3 (number)	Children immunized – under 12 months – against DPT3 (number)	No change
Children immunized – under 5 years – against Polio (number)	Children immunized – under 5 years – against Polio (number)	No change

Source: PAD and Additional Financing Documents

ANNEX 2. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION

A. TASK TEAM MEMBERS

Name	Role
Preparation	
Supervision/ICR	
Bushra Binte Alam	Task Team Leader(s)
Ishtiak Siddique	Procurement Specialist(s)
Suraiya Zannath	Financial Management Specialist
Andre C. Medici	Team Member
Maria E. Gracheva	Team Member
Shahadat Hossain Chowdhury	Team Member
Hasib Ehsan Chowdhury	Team Member
Hisham A. Abdo Kahin	Counsel
Naoko Ohno	Team Member
Nkosinathi Vusizihlobo Mbuya	Team Member
Iffat Mahmud	Team Member
Sabah Moyeen	Social Safeguards Specialist
Ajay Ram Dass	Team Member
Manav Bhattarai	Team Member
Tanvir Ahmed	Environmental Safeguards Specialist
Shakil Ahmed	Team Member

B. STAFF TIME AND COST

Stage of Project Cycle	Staff Time and Cost	
	No. of staff weeks	US$ (including travel and consultant costs)
Preparation		
FY10	4.125	24,587.68
FY11	38.413	254,192.42
FY12	.400	4,736.67
Total	**42.94**	**283,516.77**
Supervision/ICR		
FY12	39.108	167,171.57
FY13	57.025	213,720.36
FY14	13.714	82,835.31
FY15	64.827	319,390.93
FY16	0	3,544.78
FY17	7.367	31,826.65
Total	**182.04**	**818,489.60**

ANNEX 3. PROJECT COST BY COMPONENT

Components	Amount at Approval (US$M)	Amount at Approval with Additional Financing	Actual at Project Closing (US$M)	Percentage of Approval with AF (US$M)
Improving Health Services	251.20	291.20	291.20	100%
Strengthening health systems	107.70	217.70	217.70	100%
Total	**358.90**	**508.90**	**508.90**	**100%**

ANNEX 4. EFFICIENCY ANALYSIS

Methodology to Assess the Project Efficiency

1. **The economic analysis in the Project Appraisal Document (PAD) was presented in Annex 6.** It comprised two analytical sections in the macro and socio-economic context and health context, highlighting the project implications for equity. The main section in that annex is the cost-benefit analysis, which highlighted the direct benefits of the program (reduction of out-of-pocket expenditure in medicines) and the indirect benefits (calculated as the increase in productivity due to fewer days lost from illness, premature death and caring for the sick).

2. **During implementation, the Project investments were spent in two components: (1) strengthening health systems (US$217.7 million) and (2) improving health services (US$291.2 million) by enhancing health programs and service provision.** The first component was supposed to generate mostly direct benefits (reduction of illness and improvement of wellbeing), while the second component could create indirect benefits to the population (productivity gains by the reduction of illness time). Considering the project commitment to target these benefits to the poor, part of the efficiency analysis will evaluate the equity dimensions of the project investments. This annex will discuss the project efficiency in four dimensions: *(a) technical efficiency*[21]*; (b) allocative efficiency*[22]*; (c) cost-benefits analysis; and, (d) equity analysis.* All tables and graphics associated with the analysis are at the end of the annex.

Technical efficiency

3. **Technical efficiency achieved by the project is substantial. The program financed activities that contributed to improve the supply and the coverage of a set of health, nutrition and reproductive health services**. These services increased the access to skilled maternal and obstetric care coverage, unmet family planning needs, child/infant health and nutrition and adult health among other benefits. Table 4-1 shows substantial gains, between 2010-2016, in supplying services such as antenatal and obstetric care, skilled birth, integrated management of childhood illnesses, screening for NCDs such as hypertension and diabetes, safe blood transfusion and child hospital care. Consequently, *coverage and quality of health services for women and children were substantially improved*. Services such as postnatal care received within 48 hours after delivery doubled during the project life, contributing to reduce the risk of maternal mortality. Other improved indicators, such as birth deliveries attended by trained providers and average number of patients in community clinics per day reflect substantial gains in the technical efficiency on service delivery.

4. **The increase in the total supply and services coverage was effectively driven by investments in medical equipment and human resources provided by the Program.** The total public health budget as a share of government budget in

[21] Technical efficiency is the effectiveness with which a given set of inputs is used to produce an output. Technical efficiency in health increases when a set of integrated health services are produced with less input costs. It comprises scale economies brought by increased coverage and integrated healthcare management.

[22] Allocative efficiency occurs when there is an optimal distribution of goods and services, considering consumer's needs, meaning spending on the right things. This concept applies to public health investments, when the budgetary allocation per capita for a set of health services equals the marginal costs of production of these target health services. This happens when the government budget spent is lower or equivalent to the marginal utility got by the beneficiaries. Therefore, the optimal distribution is achieved when the marginal utility of the good equals or is bigger than the marginal cost.

Bangladesh increased from 4.8% (2012-2013) to 5.1% (2016-2017) during the project life. On the supply side, the Program's effectiveness was achieved by providing medical equipment and better trained personnel at district levels. Investment in health has important economic implications at population level, especially where health services are not available. Health status gained from the Project investments contributed to social well-being through its impact on economic development and productivity. Training activities strengthened quality of care and the link between outputs and outcomes. Approximately 558,000 health personnel were trained throughout the program, as way to increase quality and productivity. An additional 2,000 service providers trained in midwifery were posted at district and upazila health centers (UHCs).

5. **The Project reduced the average expected costs of health services due to economies of scale.** The HSDP contributed to substantial improvements in health outcomes and had a positive impact in reducing the cost of the essential health services package (ESP) per beneficiary. As per the studies developed by the MOHFW[23], the yearly average per-capita costs to deliver the ESP in 2015, by type of health unit, would be US$3.96 (UHCs); US$3.00 (UHFWC) and from US$1.35 to US$2.18 (CC). Given that these costs were additive, the total average per-capita cost (without considering the per-capita costs associated to district hospitals - DH) varied from US$8.31 to US$9.14. According the World Bank (2004)[24], the project cost of the essential package of services in Bangladesh was forecasted from US$16.90 to US$20.60 in the period 2005-2015. Given that, the MOHWF estimations represent a cost reduction of more than 50% than expected[25].

Allocative efficiency

6. **Allocative efficiency of the program (spending on right things) is substantial, given better budget allocations on health priorities, generating impressive progress in achieving the Program outcomes with reduction of DALYs with the amount of resources spent.** The Project reduced the Burden of Diseases (BoD) targeted by the Program. An indirect way to create evidence on this is comparing the estimation of the BoD, in terms of DALY losses between 2010 and 2015[26]. Considering this, the project target interventions on maternal diseases, neonatal diseases, nutritional deficient, diarrhea, neglected diseases, malaria, TB and HIV-AIDS had an estimated benefit of 3.2 million of DALY averted along the project life. The Program contributed to a reduction of these causes' participation in the total DALY's losses from 34.5% to 30.0%, between 2010 and 2011. Table 4.2 shows the DALYs averted from 2010 and 2015 according the diseases targeted by the Program.

[23] Government of the People's Republic of Bangladesh, MOHFW, "*Estimating costs of providing the ESP in Bangladesh*", unpublished document, Ed. MOHFW, Dhaka, 2015.
[24] The World Bank, "*Health Financing Revisited*", chapter 7, "Financing Health in Low Income Countries", The World Bank, Washington (DC), 1994.
[25] All EPS costs estimations are based in a set of services composed by TB treatment, sick-child cluster, prenatal and delivery cluster, STD treatment, family planning, EPI interventions, school-health, tobacco and alcohol control, aids prevention and other public health services and primary care treatments. These interventions are based in a EPS calculated by the World Bank in 1994 for low-income countries. See BOBADILLA, J.L, COWLEY, P, MUSGROVE, P and SAXENIEN, H., *"The Essential Package of Health Services in Developing Countries*" The World Bank, 1994.
[26] Data from the Institute of Health Metrics and Evaluation of the University of Washington State. The data could be consulted in *http://ghdxhealthdata.org/gbdresultstool*.

7. **The health interventions supported by the program were prioritized based on the international evidence of their cost-effectiveness**[27]. Most of the health integrated interventions provided by upazila health complexes (UHC), union health and family welfare centers (UHFWC) and community clinics (CC) were focused on reducing maternal, newborn and child morbidity and mortality[28]. The program also included health interventions in communicable diseases such as TB, malaria, HIV-AIDS, leprosy, kalazar and awareness campaigns on injuries and occupational health besides other health promotive and preventive and cost-effective approaches to achieve health gains[29]. The program registered improvements in TB notification and an increase in trend of successful treatments (from 92% to 94% between 2012-2015). It also increased the number of patients identified and managed with multidrug resistant TB (from 390 to 904 cases between 2012 and 2015). The number of health personnel yearly trained to attend HIV-AIDS cases increased from 400 to 2550 between 2011 and 2015. The number of HIV-AIDS testing centers providing regular services increased to 76 to 100 in the same period.

8. **To improve the allocative efficiency of the Program funds, MOHFW also began formulating criteria to distribute resources among health facilities**. The Health Economics Unit of the MOHFW in 2013, developed a mathematical formula to allocate incremental budget per health care needs, major approaches to resource allocation and negotiation and political compromise. This formula will shift the allocation method towards a need based approach. MOHFW is working with the MOF to implement this approach for a synchronized planning and budgeting at local levels.[30]

9. **Another contribution of the Project towards improved allocative efficiency was brought by investing in priority areas which were lagging**. For instance, the weak fiduciary environment and environmental safeguards received due attention. The Project Additional Financing (AF) had DLIs to improve governance and environment safety in the health sector. The AF supported improvement in medical waste management at public health facilities and strengthening of district hospitals by increasing the number of functioning community clinics submitting routine data to these hospitals in a timely manner. Besides, there was focus on areas such as health staff training, management improvement, and efficient drugs supply chain management and equipment maintenance which increased the availability, quality and access of the essential health services delivery in public health facilities.

10. **Given improved criteria to resource allocation, there was substantial improvement in priority health conditions in the country, such as maternal and child health status and reduction of the prevalence of life-threatening communicable diseases**. The Program interventions contributed to the reduction of maternal and infant mortality

[27] Black, Robert E., Ramanan Laxminarayan, Marleen Temmerman, and Neff Walker, Editors. 2016., *Reproductive, Maternal, Newborn, and child Health*, Disease Control Priorities, Third Edition (Volume 2), Ed. Washington (DC): The International Bank for Reconstruction and Development/World Bank; Apr 5, 2016. ISBN-13: 978-1-4648-0348-2ISBN-13: 978-1-4648-0368-0.

[28] An essential package of health interventions (ESP) associated with these three kinds of facilities is composed by antenatal care (ANC), Postnatal care (PNC), birth deliveries, immunization, integrated managed of childhood illnesses (IMCI), growth monitoring, family planning adolescent health and monitoring of non-communicable diseases (NCDs).

[29] Immunization and preventing infectious diseases have been established as highly cost-effective interventions in international literature.

[30] See MPHFW, Health Economics Unit, "Need Based Resource Allocation Formula for HPN Sector", Unpublished by the MPHFW, October 23, 2013.

rates in Bangladesh, from 194 to 176 per 100,000 live births and from 52 to 38 per 100,000 live births between 2010 and 2014 respectively[31], reflecting improvements in the health status.

11. **Technical and allocative efficiency also improved after the Project additional financing (AF).** The implementation progress of the entire GOB sector program with sector wide approach support, was successful. Having achieved several critical health outcome indicators (8 sector priority indicators), all proceeds from the original IDA credit and the two trust funds have been disbursed fully (US$0.01 million left undisbursed under the original credit). All 15 DLIs of the AF (US$150 million of IDA credit) were achieved and by the end of the 4-month grace period, 100% of IDA credit was disbursed.

12. **The Project was efficient on reducing transactional costs associated with coordination**. Seven DPs pooled the resources together for sector Program, strengthened policy dialogue and regular coordination through thematic task groups that comprised GOB and DPs representatives. Reliance on existing structures avoided the creation of new set-ups and their associated costs. The pooled funding arrangement was effective. This arrangement also ensured that the DPs financing was coordinated and geared to provide support to the GOB's health sector program to achieve the results outlined in the program. Pool funders meetings were held regularly providing updates on utilization of resources and fiduciary and implementation issues requiring co-financiers' interventions. With IDA credit of US$509 million and trust funds of US$366 million, the pooled fund contributed 43.6% of the total development budget of the Program and played an important role in achievement of the outcome as well as health care financing. The broad earmarking of funds has helped ensure that the program proceeds were utilized for the purposes intended.

13. **Identified irregularities in fiduciary procedures did not affect the overall allocative efficiency of the project.** Approximately, US$2.2 million was declared as ineligible expenditure during the implementation period due to financial irregularities identified by the Government and Bank audits. However, this represented only 0.26% of the total Project financing (of US$873 million in IDA credit and grant from trust funds). Given these irregularities, the Government has refunded the full amount and the Bank trained the MOHFW staff on financial and fiduciary management procedures increasing MOHFW´s team skills to avoid future similar problems.

Project Cost-Benefit Analysis

14. **The Program benefit was measured by a cost-benefit analysis, considering the impact of the Program on health outcomes, household spending on drugs and increase in productivity due to fewer days lost from illness.** The gains were calculated as reduction in total days of morbidity and mortality multiplied by average daily per capita GDP. The PAD describes both direct and indirect benefits arising from improving health services and strengthening health systems. The same framework is used in this ICR's economic and financial analysis. This section of this annex presents the ex post economic evaluation of HPNSDP Program (July 2011-June 2016) and restructuring for AF (July 2016-December 2016). Internal rate of return (IRR) and net present value (NPV) were estimated.

15. **Cost-benefit considerations.** Same methodological approaches and indicators were considered in both ex ante and ex post assessments. Table 4.4 presents the total sector program costs considered by this economic analysis.

[31] Bangladesh Demographic and Health Survey Reports 2011 and 2014

16. **The cost of implementation of the MOHFW's Program (HPNSDP) has two elements: (i) the GOB's contribution and (ii) the Development Partners' contribution.** The total Program cost was estimated as US$8,011 million over five years and six months in the PAD. This economic analysis used the same Program's total cost estimated during preparation of PAD and AF.

17. **Direct benefit.** This was computed as reduced out-of-pocket (OOP) expenditure on medicines. Per capita OOP expenditure data from the Bangladesh National Health Accounts 1997–2012 and 2015 (draft report) were used. The savings in expenditures were calculated as the total number of cases of treatment averted multiplied by the cost of treatment.

18. **Indirect benefit.** This benefit was calculated as the increase in productivity due to fewer days lost from illness, premature death, and caring for the sick. The gains were calculated as the reduction in the total days of morbidity and/or mortality multiplied by the average daily per capita GDP.

19. **The Project would grant high economic return.** Based on the assumptions expressed in Table 4.4, and with benefits accruing over a 20-year period, the results of economic analysis are a net present value (NPV) of US$14.88 billion, representing and internal return rate (IRR) of 19 percent.

Equity Analysis

20. **Methodology for the equity analysis.** The equity analysis is focused on the access to services. It did not evaluate the trends associated with catastrophic and out-of-pocket spending due to limited data for this analysis during the project life. The analysis considered how the equity was improved between 2011 and 2016 in variables such as: (a) women who had a live birth and received antenatal care during pregnancy; (b) birth deliveries in health facilities; (c) birth deliveries assisted by a medically trained provider; (d) use of modern methods of contraception by women; (e) breast-feeding within one hour of birth among last born children and (f) vitamin A intake among children age 6-59 months. *The indicators used to measure equity are the following: poorest quintile-richest quintile ratio and Gini coefficient.* The comparison was also done by presenting Lorenz Curves for 2011 and 2016 for those variables. Table 4.5 present the data and equity results related to all the variables listed above.

21. **There were two groups of variables to consider: (i) with high inequality and (ii) with little or no inequality.** The variables included in the first group were access to antenatal care, birth deliveries in health facilities and birth delivered by medically trained professional. The population in the poorest quintiles are in great disadvantage regarding the access to these kind of health services. In the second group the variables were use of modern methods of contraception, breast-feeding within one hour of birth and vitamin A intake among children. In these variables, the poorest quintiles have equal or sometime more access to the services, even though the scores are behind the adequate standards for all population income quintiles.

22. **The HSDP improved equity for all considered variables along the project life, but in different proportions**. Table 4.5 shows the distribution of the access to these variables among income quintiles and the results of the three considered indicators. All variables presented improvements in the poorest-richest quintiles ratios (PRQR), showing progress in reducing the access gap to health and nutrition goods and services. The gap was reduced in the variables

of the first group in greater proportion than the variables of the second group where equity levels were high since 2011. For example, between 2011 and 2016 the PRQR increased in 29%, 88% and 106% in the access to antenatal care, birth delivery in health facilities and birth assisted by medically trained professionals but only 13%, 12% and 12% in the use of modern methods of contraception, breast-feeding within one hour of birth and vitamin A intake among children, respectively.

23. **In the variables of group 1, Gini Coefficient[32] was reduced substantially.** Table 4.4 shows reductions of 40%, 54% and 29% in the Gini related to the access to antenatal care, birth delivery in health facilities and birth assisted by medically trained professionals, between 2011 and 2016, respectively, which confirms the contribution of the project to the increase in equity to crucial services for mother and baby care. Graphics 1, 2 and 3 shows the progress on equity of the Lorenz curves associated with these variables.

24. **However, in the variables of group 2, Gini Coefficient does not show progress given that these variables already achieved high levels of equity in 2010**. Table 4.5 also shows that Gini coefficients for the use of modern methods of contraception, breast-feeding within one hour of birth and vitamin A intake among children are kept very low (sometimes negative), demonstrating that, despite the increase in the access of these goods, behavior and services in all income quintiles between 2011 and 2016, there is some room to improve these indicators for the whole population in Bangladesh.

25. **Summing up the evidence, significant equity achievement has been documented in improvement of health, nutrition and population (HNP) services for the poor, which was the aim of the Program.** The evidence is based on the summary publication of the UESD 2016, which has a limited number of comparable variables with other previous household surveys. However, similar analysis should be extended to other variables improved by the HSDP when the full publication of the UESD 2016 results will be available.

Final Considerations

26. **The present economic analysis demonstrated that the HSDP provided gains on efficiency (technical and allocative) and equity.** The technical efficiency (effectiveness) was achieved by increases in the utilization of cost-effective health care services, especially by poor, whose previous levels of health care utilization were considerably lower than those of other social groups in the country. The Program allocative efficiency led to important reductions in the targeted BoD in Bangladesh, averting 3.2 million of DALYs lost between 2010-2015. With regards to value for money, the Program added value by increasing access and utilization of health services. The overall cost-benefit analysis of the Program showed an estimated positive IRR of 19%. HPNSDP equity target was to increase the poorest-richest ratio for some essential antenatal care and trained birth delivery by 2016. The analysis of the DHS 2011 and UESD (2016) data showed that this was achieved in some relevant variables related to health goods and services provision.

[32] The Gini Coefficient is an equity indicator to measure the progressivity or regressivity of a variable (access to services, for example) regarding its distribution by income. For example, considering income quintiles, the variable is totally regressive, when the richest quintile has all access to services and all other quintiles don't have any access. In this case, the Gini Coefficient achieves its maximum value of 1. If the variable is distributed in a total equitable way (all quintiles have de same access to services in the same proportion) the Gini Coefficient is 0. If the services distribution is totally progressive (the poorest quintile has the total access to services but the other quintiles don't have any access), the Gini Coefficient assumes its minimum value of minus 1.

The benefits had a strong equity dimension. Efficient program interventions contributed to reducing maternal and infant mortality and improved the equity in accessing health care.

Table 4-1: Main Improvements in the Supply and Coverage to Health Service Indicators in Bangladesh: 2010-2016

Indicator	2010	2016	Improvement
Health supply improvement indicators			
Health facilities providing antenatal and obstetric care 24 hours a day/7 days a week (number)	78	170	217.9%
Community skilled birth attendant trained (number)	7089	11330	59.8%
Upazila Health Complexes (UHCs) having integrated managed of childhood illnesses (number)	350	487	39,1%
UHCs providing hypertension and diabetes screening (number)	1	300	-
UHCs having trained personal and forms of report on nutrition services (number)	0	482	-
Facilities (UHC and above) with safe blood transfusion services (number)	191	219	14.6%
Hospitals under revitalization for the baby friendly health initiative (number)	63	592	839.7%
Health coverage improvement indicators			
Pregnant women receiving at least 4 prenatal care visits (%)	20	32	60.0%
Birth deliveries attended by trained provider (%)	26	49	88.5%
Pregnant women receiving tetanus vaccine (5 doses) (%)	42	57	35.4%
Mothers receiving postnatal care within 2 days of delivery (%)	21	43	104.8%
Women using modern contraceptive methods – low performing areas (Sylhet Division) (%)	36	43	19.4%
Women using modern contraceptive methods – low performing areas (Chittagong Division (%)	47	49	4.2%
Children (12-23 months) vaccinated by all scheduled vaccines by 12 months' age (%)	80	90	12,5%
Children (6-59 months) receiving A vitamin supplements (%)	62	77	24.2%
Children (6-23 months) fed in appropriate practices feeding practices (%)	21	30	42.9%
School children of age 5-12 years treated with deworming drugs (%)	68	99	45.6%
Average number of patients in community clinics per day (number)	19	38	100.0%

Source: UESD Surveys (2010 and 2016) and MOHFW (administrative records according APIR 2006).

Table 4-2 – Disability-Adjusted Life Years (DALY) losses in Bangladesh According the Targeted HSDP Causes of Mortality and Morbidity: 2010-2015

Main HSDP Targeted Causes of Mortality and Morbidity	Number of DALY losses in 2010 (thousands)	Number of DALY losses in 2015 (thousands)	DALY losses averted along the Program Life
Maternal Disorders	577.2	454.1	-123.1
Neonatal Disorders	6621.2	5206.5	-1414.7
Nutritional Deficiencies	1949.2	1656.5	-292.7
Neglected Diseases, Malaria and Tuberculosis	859,0	743,8	-115.2
Diarrhea	6131.5	4815.7	-1315.8
HIV-AIDS	623.5	688.0	+64.5
TOTAL TARGET CAUSES	**16761.6**	**13564.6**	**-3197.0**
TOTAL BURDEN OF DISEASES (BoD)	**48515.2**	**45147.8**	**-3367.4**
TARGET CAUSES AS PERCENTAGE OF TOTAL BoD	**34.5%**	**30.0%**	**94.9%**

Table 4-3 – HSDP - Program Costs

Cost by source	Program Cost (US$ million)
MOHFW financing	6,264
DPs (Pooled and parallel financing)	1,747
Total costs	8,011

Table 4-4. Parameters of Cost-Benefit Analysis

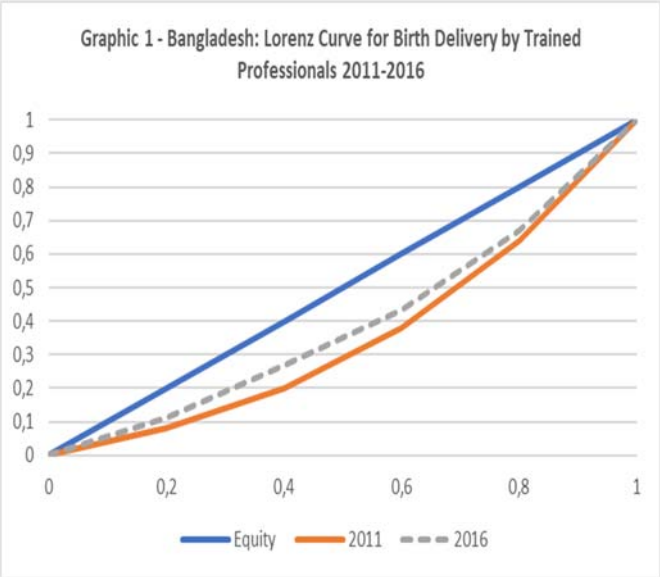
Key Parameters and Assumptions	Value	Source
Discount rate for life	3%	WHO Guide to Cost-Effectiveness Analysis http://www.who.int/choice/publications/p_2003_generalised_cea.pdf World Bank Disease Control Priorities Study and the Global Burden of Diseases Project both used a 3% discount rate. World Development Report 1993 also used a 3% discount rate.
Discount rate for monetary value	3%	
GDP per capita growth (annual %)	5.22% (2015) increased to 6.75% (2032)	GDP and GDP per capita were taken from World Development Indicators for earlier years. GDP was projected based on the assumed 7.2% growth rate. Per capita GDP was estimated dividing the projected GDP by the projected population figure taken from world population estimates. Per capita GDP growth was calculated based on that.
GDP per capita (2011–2032)	800 (2011) increased to 2,716 (2032)	Per capita GDP was estimated by dividing the projected GDP by projected population figure taken from World Population estimates. Per capita GDP growth was calculated based on that.
Annual GDP growth over 20 years	7.20%	GDP growth rate was taken from World Development Indicators 2015 for available years and then assumed to be 7.2% based on the current trends.
Value of Statistical Life in US$	US$65,000	Consultancy Services for "Technical Feasibility Studies and Detailed Design for Coastal Embankment Improvement Program (CEIP)" Contract Package No. BWDB/D2.2/S-3 (IDA CR. No. 4507). Final Report Volume I. June 2013, Coastal Embankment Improvement Project, Phase-I (CEIP-I) Bangladesh Water Development Board, Ministry of Water Resources, Government of the People's Republic of Bangladesh
MOHFW Budget Growth	5% (2016) increased to 9% (2032)	Assumption
Efficiency gain from DLI (a)	0.50%	Assumption
Average length of stay in hospitals at the district level and below (b)	4 days to reduce by 1 day	Health Bulletin DGHS for actual admission figures. Projected admission figures are based on assumed annual growth rate at 2%.
Increased productivity from each outpatient visit	0.5 day	Assumption
Public sector contribution to infants' lives saved	80%	Assumption
Public sector contribution to reduced maternal mortality	60%	Assumption
Of ill people, % seeking treatment	89.60% (2011) increased to 91.50% (2032)	Based on trends from Household Income and Expenditure Survey (HIES) 2000, 2005, and 2010
Of people seeking treatment, % going to public facilities	9.64% (2011) increased to 40% (2032)	Based on HIES 2010 and assumed
Per capita OOP spending on health	US$17 (2012) and US$24.84 (2015) and to US$69.27 (2032)	Bangladesh NHA figures up to 2012 and WHO (2013–2014); estimated based on past trends
Per capita OOP spending on medicine	US$11 (2012) and US$16 (2015) and to US$42.80 (2032)	Bangladesh NHA up to 2012, estimated keeping OOP spending on medicine as constant at 65%
Morbidity reduction among children due to vaccination	30%	Assumption
Percentage of OOP spending for children	10%	Chandrasiri, J., C. Anuranga, R. Wickramasinghe, R. P. Rannan-Eliya. 2012. *The Impact of Out-of-pocket Expenditures on Poverty and Inequalities in Use of Maternal and Child Health Services in Bangladesh: Evidence from the Household Income and Expenditure Surveys 2000–2010*. Country Brief. Mandaluyong City, Philippines: ADB.
Maternal mortality ratio per 100,000 live births	187 (2012) to176 (2015) reduced to 121 by 2021 (fourth sector program target) and then to 70 by 2032 (SDG target)	Bangladesh Maternal Mortality and Health Care Survey 2010 and Maternal Mortality Estimation Inter-Agency Group for actual figures.
Infant mortality rate per 1,000 live births	38 (2014) reduced to 20 (2032)	Figures are based on Bangladesh Demographic and Health Survey 2014 (figures between the years are interpolated)

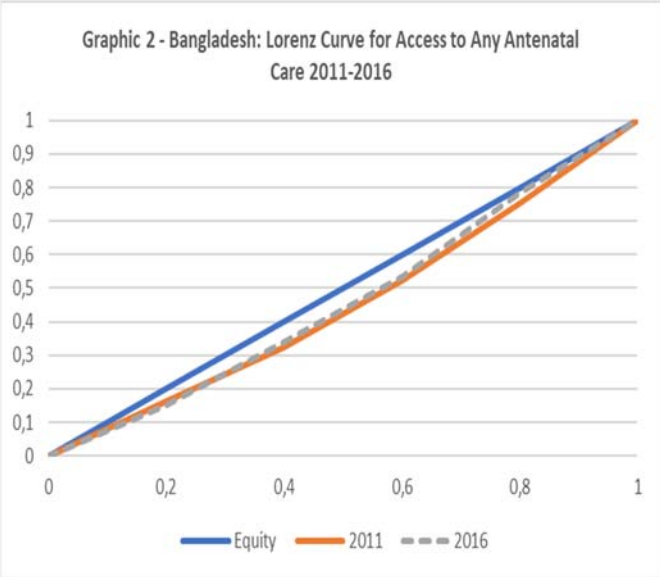
Notes: a. Government health budget that is assumed to be US$2.67 billion per year and 5% growth rate for budget. Efficiency gain 0.5% for first five years from 2017, then 1% for the next five years, and then 1.5% until 2032 and 2% for the remaining years. b. Saved productivity loss through reducing hospital stay by one day for the patient and for one attendant.

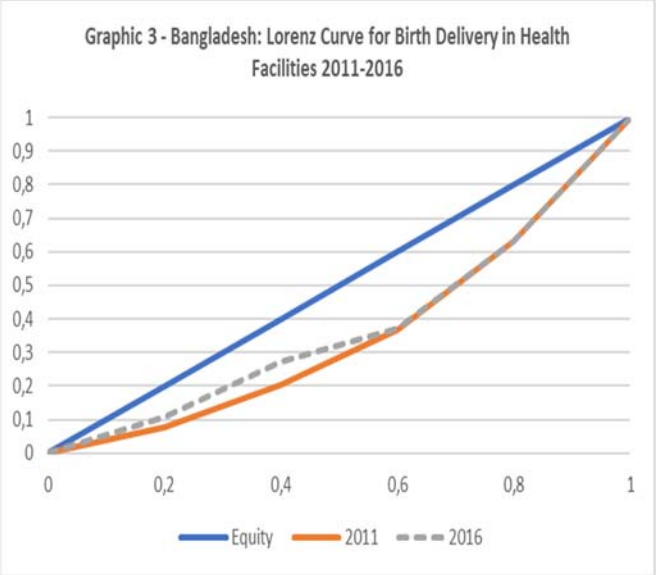
Table 4-5 – Equity Results of the HSDP Project: 2011-2017

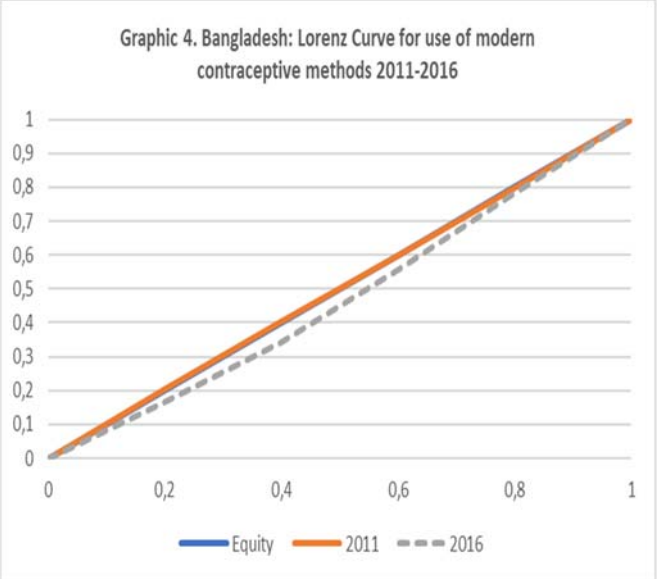
Quintiles and Equity Indicators	2011	2016	Increase or Decrease (%)
Percentage of women who had a live birth and receive any antenatal care during pregnancy			
Poorest	48.4	62.6	29
Poor	55.5	74.1	33
Middle	68.2	79.3	16
Rich	79.4	88.1	11
Richest	93.0	93.8	1
Average	**67.9**	**79.8**	**18**
Ratio poorest/richest	**0.52**	**0.67**	**29**
Gini Coefficient	**0.321**	**0.192**	**-40**
Percentage of birth deliveries in health facilities			
Poorest	9.9	23.5	137
Poor	17.6	34.2	94
Middle	24.4	37.3	53
Rich	39.8	54.9	38
Richest	60.0	72.8	21
Average	**29.0**	**43.4**	**50**
Ratio poorest/richest	**0.17**	**0.32**	**88**
Gini Coefficient	**0.139**	**0.064**	**-54**
Percentage of birth deliveries assisted by medically trained provider			
Poorest	11.5	28.3	146
Poor	18.6	38.8	109
Middle	28.2	40.6	44
Rich	43.2	59.0	37
Richest	63.8	76.5	20
Average	**22.2**	**49.1**	**121**
Ratio poorest/richest	**0.18**	**0.37**	**106**
Gini Coefficient	**0.329**	**0.232**	**-29**
Percentage of use of modern methods of contraception by women			
Poorest	52.9	67.3	27
Poor	53.8	67.1	25
Middle	52.1	66.5	28
Rich	50.6	60.5	20
Richest	51.1	57.9	13
Average	**52.1**	**63.7**	**22**
Ratio poorest/richest	**1.03**	**1.16**	**13**
Gini Coefficient	**-0.033**	**0.023**	**-**
Percentage of breast-feeding within one hour of birth among last born children			
Poorest	49.9	52.3	5
Poor	46.6	57.7	24
Middle	49.1	58.0	18
Rich	48.0	50.6	5
Richest	40.6	37.7	-7
Average	**47.1**	**51.0**	**8.2**
Ratio poorest/richest	**1.23**	**1.38**	**12**
Gini Coefficient	**-0,032**	**-0,102**	**-**
Percentage of vitamin A intake among children age 6-59 months			
Poorest	53.2	68.8	29
Poor	60.6	76.6	26
Middle	69.6	79.4	14
Rich	68.3	78.6	15
Richest	69.6	80.6	16
Average	**63.8**	**76.8**	**20**
Ration poorest/richest	**0.76**	**0.85**	**12**
Gini Coefficient	**0,000**	**0,031**	**-**

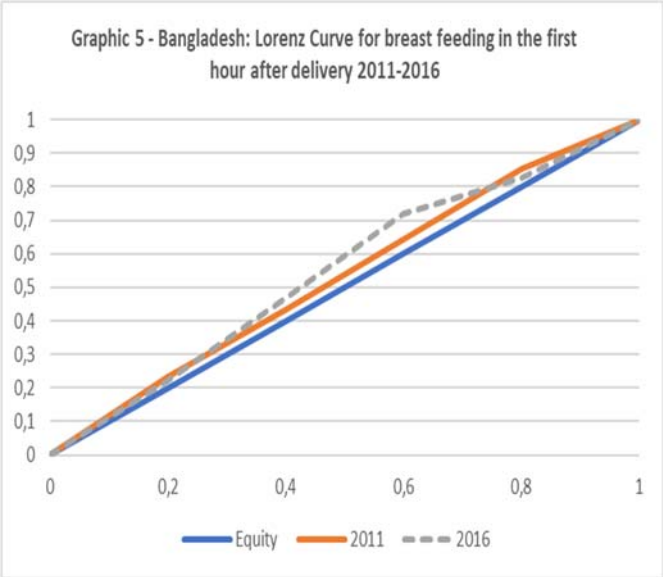
Source: BDHS 2011 and UESD 2016

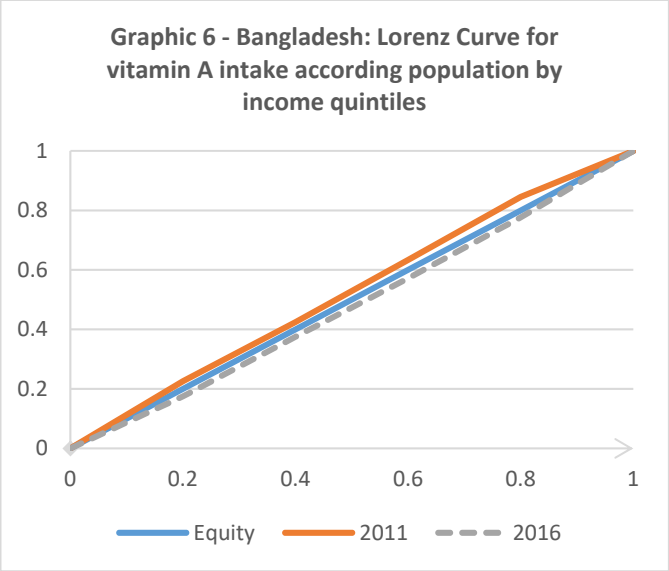

Graphic 1 - Bangladesh: Lorenz Curve for Birth Delivery by Trained Professionals 2011-2016
1
0,9
0,8
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
0
0,2
0,4
0,6
0,8
1
Equity
2011
2016


Graphic 2 - Bangladesh: Lorenz Curve for Access to Any Antenatal Care 2011-2016
1
0,9
0,8
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
0
0,2
0,4
0,6
0,8
1
Equity
2011
2016


Graphic 3 - Bangladesh: Lorenz Curve for Birth Delivery in Health Facilities 2011-2016
1
0,9
0,8
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
0
0,2
0,4
0,6
0,8
1
Equity
2011
2016


Graphic 4. Bangladesh: Lorenz Curve for use of modern contraceptive methods 2011-2016
1
0,9
0,8
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
0
0,2
0,4
0,6
0,8
1
Equity
2011
2016


Graphic 5 - Bangladesh: Lorenz Curve for breast feeding in the first hour after delivery 2011-2016
1
0,9
0,8
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
0
0,2
0,4
0,6
0,8
1
Equity
2011
2016


Graphic 6 - Bangladesh: Lorenz Curve for vitamin A intake according population by income quintiles
1
0.8
0.6
0.4
0.2
0
0
0.2
0.4
0.6
0.8
1
Equity
2011
2016

ANNEX 5. BORROWER, CO-FINANCIER AND OTHER PARTNER/STAKEHOLDER COMMENTS

Introduction

1. **This Annex has three parts. The first part describes the summary of the *MOHFW's Report on End-Line Evaluation of Health, Population and Nutrition Sector Development Program (HPNSDP), July 2011- December 2016*. The second part includes client's (MOHFW) comments on Bank's performance and the last part provides the Development Partners' comments on HPNSDP/HSDP implementation and Bank's performance.**

Part 1: MOHFW's Summary Evaluation of the HPNSDP

2. **At the end of the implementation, the GOB contracted a consultant firm to assess the progress and performance of the sector-wide health program and to identify successes and challenges to assist in the planning and implementation of the next health sector program**. The Evaluation Committee, composed of representatives from different ministries and departments, conducted the evaluation of HPNSDP. The evaluation was based on extensive document reviews and field site visits for this evaluation. Several meetings of the Evaluation Committee were held to discuss and agree on different issues to be addressed in the evaluation. The evaluation team reviewed the Operational Plan (OP) level indicators to ascertain progress and performances of the 32 OPs as well reviewed the RF indicators. The report is mainly based on the outcome of the document review of available technical reports including all the Annual Program Implementation Reports (APIRs), Annual Program Reviews (APRs), and Mid-term Reports (MTRs) conducted during the implementation of HPNSDP.

3. **Overall, there were noticeable improvements in health indicators during HPNSDP as a majority of the relevant RF goal level indicators were either achieved or on track to be achieved.** Bangladesh has made progress in achieving the Millennium Development Goal (MDG) targets, especially those related to maternal and child health, family planning and nutrition. Progress of HPNSDP in maternal health was impressive. Bangladesh is on track to achieve MDG 5. The Maternal Mortality Ratio (MMR) fell 47% between 2001 and 2013, i.e., MMR reduced from 194/100,000 live births to 170/100,000 live births. Skilled health professionals were attending more births (births by skilled birth attendants increased from 21% in 2007 to 42% in 2014). The number of women receiving antenatal care (ANC) improved from 53.4% in 2007 to 64% in 2014 and women receiving ANC+4 visits improved from 22% to 31% during the same period**.**

4. **There has been significant progress in child health in terms of child mortality rates (CMR) and infant mortality rates (IMR) during the HPNSDP period.** The under five-child mortality rate declined from 116/1000 live births in 1996-97 to 65/1000 in 2007 to 46/1000 in 2014. Similarly, the IMR also declined considerably, from 82/1000 live births in 1996-97 and to 52/1000 in 2007 and to 38/1000 in 2014. Bangladesh is on the track to achieve Millennium Development Goal (MDG)-4, but further progress is necessary in child health in order to fulfill the MDG-4 or SDG 3.2.

5. **The HPNSDP also achieved notable progress in implementing effective family planning services. The use of family planning continued to increase during the HNPNSDP period**. The Contraceptive Prevalence Rate (CPR) increased from 56% in 2007 to 62.2% in 2011 and to 64.2% in 2014. The Total Fertility Rate (TFR) also decreased

remarkably from the HPNSP period (2.7 in 2007) to the HPNSDP period (2.3 in 2011), although the TFR did not decrease according to the most recent Bangladesh Demographic and Health Survey (BDHS) in 2014.

6. **Substantial progress was also made in nutrition. HPNSDP targets for both stunting and wasting (38% and 33% respectively) were achieved and the level of stunting is now below the World Health Organization (WHO) 'critical' threshold of 40**%. Stunting (height-for-age) of children decreased from 51% in 2004 to 43% in 2007 to 41% in 2011 to 36% in 2014, while the proportion of underweight (weight-for-age) children decreased from 43% in 2004 to 41% in 2007 and to 36% in 2011 and to 33% in 2014. Progress on reaching the MDG target for underweight appears to be on-track while there is a slowing down in the reduction of stunting.

7. **The analysis of the cumulative progress of the 158 indicators of the 32 OPs for HPNSDP 2011-16 period showed that 65% of OP-level indicators were fully achieved.** Another 32 indicators (or 20%) were partially achieved and 24 (15%) indicators were not achieved at all. Nearly one-third of OPs were able to achieve 76% or more OP indicators fully during the HPNSDP period. The majority of the OPs (47%) fully achieved 56%-75% of their respective OP indicators. OPs with weak progress included Human Resource Management (HRM), Physical Facilities Development (PED), Essential Service Delivery (ESD), Alternative Medical Care (AMC), Health Economics and Financing (HEF), Health Education and Promotion (HEP), Management Information System-Family Planning (MIS-FP) with 55% or less of their respective OP-indicators fully achieved.

8. **Financial Progress:** The increasing trend in the Revised Annual Development Program (RADP) allocation and expenditure over the allocation during the HPNSDP period reflects better budget planning and re-appropriation of funds by the Planning Wing of the MOHFW. The average RADP utilization rate against RADP allocation during the HPNSDP implementation period stood at 85% while utilization rate over released fund was 93%. The percentage spent over RADP allocation in different financial years varied from 81% to 91% while the percentage of spent over fund released in different financial years varied from 90% to 96%. The spending rate against fund allocation was substantially higher for the Government of Bangladesh (GOB) fund than for the PA fund. The GOB fund expenditure varied from 94% to 98% in different financial years while Project Aid (PA) fund expenditure varied from 84% to 90%.

9. **Technical Support:** The Program Management and Monitoring Unit (PMMU) with the help of Technical Assistance Support Team (TAST) performed a significant role in performance monitoring and evaluation (M & E), coordination and tracking for identification of achievements and shortfalls of the program at various stages of HPNSDP.A great achievement of HPNSDP was the commitment of the MOHFW to ensure (for the first time) a functioning M&E unit led by the GOB (with external donor support, e.g., TAST) and as such, was able to have and use data to regularly assess program performance and make program and policy related decisions based on evidence. In particular, the periodic reviews and preparation of six-monthly, annual, and mid-term program implementation reports at regular intervals contributed substantially for the preparation of independent APRs and MTR of the program**.**

10. **Unlike the technical assistance through DPs, the Joint Donor Technical Assistance Fund (JDTAF) was more effective and responsive to the demands for technical assistance from different Line Directors (LDs) through the technical assistance committee (TAC) of the MOHFW.**

11. **Areas for Special Consideration under the next Sector Wide Approach (SWAp):** In spite of the remarkable achievements, the study revealed many challenges and opportunities for the Health, Nutrition and Population (HNP) sector program of Bangladesh. These are mostly related to: a non-functionality of logistics; a weak system of repair and maintenance of physical facilities and assets; a need for strengthening procurement, budget execution and internal audit control systems; the need to ensure availability of skill-mix among service providers and of medicines for imparting key HNP services; a lack of appropriate Behavior Change Communication (BCC) campaigns on healthy behaviors; the need to ensure quality of care for different health services; the need to develop functional linkages among different information systems; and the need to improve functional coordination between the OPs, directorates and ministries. The details and recommendations for addressing these challenges and opportunities are in the *MOHFW's Report on End-Line Evaluation of the HPNSDP*.

Part 2: Borrower's Comments

12. **During the design of both GOB's HPNSDP and the World Bank's HSDP, there was good coordination between the DPs and the GOB.** It was a participatory exercise for aid harmonization including financial and technical assistance for realizing the goals and targets set forth in the Program and the Project. USAID's role was instrumental, together with the World Bank and DFID, in developing the M&E framework for the Program and its implementation. There was a financing gap during the period of the HPNSDP Program, partly because the GOB did not receive the full amount originally committed by some donors and partly because of exchange rate fluctuations reducing the expected amount of resources. As per the request made by the GOB, the World Bank could provide additional US$150 million with an extension of the HSDP.

13. **During the implementation of the HPNSDP/HSDP, the World Bank had conducted fiduciary oversight of the pooled funds on behalf of the donors.** Overall, this helped to build the capacity of the GOB staff but at times it had a high transaction cost because of back and forth between the GOB and the World Bank while retrieving no objection at each step in the procurement process. During the last six months of the Program extension, DLIs were introduced as part of the preparation of the Additional Financing (AF), to improve the procurement and financial management functions of the Program. This was a sudden change by the World Bank of the financing modality to DLIs for which the government was not well prepared as the Program was extended for just a period of six months. The reasons given by the Bank for this change in modality, which included concerns raised by the IFA report to be addressed, was well understood but the government was skeptical about whether the DLIs could be achieved in the short period remaining in the HPNSDP. However, the government and Bank negotiated and agreed on the DLIs which could be practically achieved during this short period. All the results associated with the DLIs were achieved and the AF was fully disbursed.

14. **DLIs achievement is contingent on the provision of adequate technical assistance (TA) from the partners including the Bank.** TA would be required specifically for capacity building of the focal units responsible for achieving the DLIs, including the MOHFW's structural reforms, and for the third-party verification agency. The government would need a strong technical support in the current new program to realize the DLRs achievement. There is still a resource gap in the Fourth Health, Population and Nutrition Sector Program. The government is seeking additional funds from the partners to contribute to the Development Budget.

Part 3: Development Partners' Comments[33]

Embassy of Sweden (International Development Section Bangladesh)

15. Initially the Government was a bit disorganized and started the preparation process with the PIP. The WB along with DPs recruited a consultant to prepare the SIP which is the primary document. Based on the SIP a new PIP was developed. The Government was also at the beginning a bit confused about aid modality, whether they should go for treasury model or MDTF.

16. We have witnessed improvements of health indicators and also achieving health related MDGs so we considered that government is doing well when it comes to service delivery. The challenges are the poor quality in services and slow progress in hard-to-reach area and marginalized population, including LGBT and tribal/minority populations. Changes in the structure of the health system are slower but we see progress on for example developing IT-based information systems. The use of information in decision-making, planning and budgeting are still in progress. Human resources and incentives to retain staff in hard to reach areas and strategies to address absenteeism in the public system are still a matter of concern. Other areas of concerns are: Fragmentation and poor coordination of family planning division and health division needs to be improved; Regulation and accreditation of the private sector.

17. In general, we think the WB has performed well. The SWAp is a very complex, consultation heavy with multiple actors involved and we consider that the WB Bangladesh has played a key role bringing different stakeholders together and has with a very competent staff. Although, information sharing with the DPs is still not satisfactory, especially during the last year (January 2017 until now). No meetings of the MDTF have been held during this year. It is Important to keep the leadership for the next program country based and we welcome the decision to place the Task Team Leader in Dhaka.

Department for International Development -UK Aid

18. During preparation or design phase the then Secretary of Health took leadership of the process and the Planning Wing engaged closely with stakeholders. MOHFW managed to well utilize the TA offered by various donors especially DFID and the World Bank. A number of studies were carried out to set the baseline and ascertain TA need while consultant teams were assigned to develop the program design in consultation with the GoB officials. All the reports were widely shared with all concerned.

19. The government's performance was quite commendable during the first three years. The opening up of the over 13,000 Community Clinics with necessary drugs and supplies and providers greatly increased access to health services. In terms of health systems, several important digital information systems (HMIS, FP LMIS, HRMIS etc.) were established and are still functioning; some commendable milestones were also achieved in

[33] During the two ICR's missions, the ICR team interviewed development partners of the following agencies: USAID, DFID, GTZ, SIDA, CIDA, UNFPA and UNDP. Some of the DPs (SIDA, DFID, CIDA and UNFPA) sent written comments which are reproduced here "in verbatim".

the area of procurement while budget execution also improved greatly.

20. This was largely due to the strong leadership of the Secretary, Health; support provided by the PMMU composed of ex-senior GoB officials to the Planning Wing as well as strong donor leadership through the health consortium Chair. The LCG meetings, held quarterly, provided space for raising issues and increasing accountability of the line directors. The TA Committee chaired by the JC, Planning Wing, and initiated mainly by DFID was introduced as a platform for better coordination, complementation and accountability of all parties. The mechanism was well contributed by the World Bank and other donors and became quite successful. The TA request (ToRs) of the line directors were reviewed by government and donor members, endorsed or modified and then sent to the Secretary for approval.

21. The M&E Task group met regularly and developed a national strategy and action plan. The annual reviews were organized jointly and joint field visits were made; independent consultants where engaged while the process itself was a learning event for all concerned. The priority action plans (PAP) following each AR became the crux of monitoring for all. These jointly agreed actions provided a clear direction to the most priority issues that enhanced effectiveness, efficiency and sustainability of the sector reforms. Implementation of the PAP was well supported by TA especially by DFID. The intra MOHFW program and budget review meetings were held by the Planning Wing regularly and necessary recommendations were made following the Secretary's approval. It greatly helped in addressing priorities, improving performance, and re allocating budget in areas of need/ demand. The process was well supported by the PMMU.

22. However, fiduciary risks could not be well mitigated due to a number of wider issues. The deeper reforms in FM of the health ministry depend on GoB's commitment to update and modernize its FM system which varied with the wider political context over the five years. The multi donor project SPEMP with the MoF was seen as a panacea for improving the FM but it had to be stopped. HSDP as such had to depend on a number of ad hoc mitigation actions like providing FM consultants to LDs with large budgets. In response to the Bank's audit in 2015, a 'FM improvement action plan' was developed by the Bank engaging all donors (MDTF). Many of the actions were supported by DFID TA however these again were rather largely short term measures. Lack of adequate assurance led to a change in aid modality of the sector program, for the first time, from input to 'results' based performance which the health ministry accepted with reluctance. This somehow changed the entire MoHFW-donor coordination environment and partners seemed to drift away in different directions!

23. The overall performance of the World Bank was commendable. On the borrower's need, the Bank carried out extensive discussions, consultations, offered solutions and options time and again. It worked quite closely with the government leading the program financing and procurement task groups, which created opportunity for all to engage and have dialogue with the relevant government counter parts. A number of capacity building activities were also carried out but these were mostly for better understanding of the Bank's systems and procedures. World Bank's experts on PFM were also brought in as and when needed. In the area of procurement, Bank, UASID and DFID worked very closely with the MoHFW counterparts. Besides specific improvements (not seen before in the history of sector programs here) in the procurement and supply chain management, the issues raised by Bank's post procurement audit were responded to through TA provided by USAID and DFID.

24. A key observation in this regard is that the TA provided by the Bank were mostly on issues concerning Bank operations while it depended heavily on other donors especially DFID and USAID for TA on capacity building of the MoHFW. A reasonable provision should ideally be made for carrying out essential TA while approving IDA to fragile governments.

25. It is important to consider the time factor while developing any action plan especially where public reforms are involved. As such, fiduciary action plans developed at the outset of the project should clearly mention, which issues will be dealt with realistically and which will be addressed through stop gap arrangements; this will increase donor confidence in Bank's operations. Educating partners on Bank's perspective and operations, especially language/ terminology, is also very important and helpful.

26. While reviewing project performance, it is very important to take note of evolution of the wider political environment. The HSDP started in 2011 when a new government had taken over, after years of being in the opposition. The commitment for 'doing something great' for the people was quite strong in the first few years which benefitted the HSDP. However, it became more important to hang on to power rather than other things, in the later years. With frequent change of officials and leadership, accountability and engagement with donors varied from time to time, which adversely affected sector program performance. Such 'risks' could be flagged better while designing the program.

United Nations Population Fund (UNFPA)

27. The government's performance during the preparation of the HSDP/HPNSDP was exemplified by consultation, debate and consensus building. This consultative process was done at the behest of the Bank with active support of all Development Partners. The implementation of the third sector program though delayed initially in lieu of the protracted approval process of PIP and operation plans, picked considerable momentum once implementation started. The Government supported by the Bank demonstrated willingness to strengthen its fiduciary practices and pursuit for greater transparency. This willingness manifested in the development of PLMC (procurement and logistics management cell) in the Ministry, roll out of web based procurement process and the formation of different task groups to review performance.

28. HPNSDP introduced OP-level indicators and bi-annual program implementation reporting to improve monitoring and accountability within the SWAp. The birth of the Program Management and Monitoring Unit (PMMU) further demonstrated the government's commitment in monitoring performance of the sector program. The MOH&FW reached important milestones by shortening the procurement lead time with tracking arrangements, online and by utilizing need based procurement planning, among others. During the implementation period the MOH&FW arranged GOB-DP policy dialogues following every APR, which fostered partnerships and demonstrated ownership and mutual commitment.

29. The World Bank requires special mention for directly contributing to strengthening of fiduciary practices, improving overall financial management of the ministry of health, establishing need based transparent procurement systems, creating different discussion platforms between the DPs and the government and in

conducting APR to improve sector governance.

Canadian International Development Agency

30. During HSDP/HPNSDP preparation phase the then Health Secretary of Ministry of Health took leadership of the process and the Planning Wing of MOHFW, PMMU (Program management and Monitoring Unit) was engaged remarkably with stakeholders including all DPs. The SWAp development process was quite participatory and Canada was very much involved in the process. A number of TA was engaged to support the preparation and the MOHFW utilized those TAs offered by various donors, especially through DFID, World Bank and USAID. Although Canada was not directly providing TA support we were actively involved with the TA committee of MOHFW. A team of consultants was assigned to develop the program design in consultation with the GoB officials, and all these reports were widely shared with all concerned. The Government and DPs (including the Bank) were satisfied with the results achieved but were concerned about the audit reports and GoB responses to the audit observations which have not yet all been resolved.

31. GoB was spending more than anticipated outside the HPNSDP which was an issue donors raised on multiple occasions in policy dialogue fora. GoB spending on health in general was below expectations. PFM was not as strong as donors would have liked and during implementation, several audits reflected these weaknesses. Actions on PFM that were part of the HPNSDP were not implemented as per the agreed timelines (new organogram for internal audit, etc.) In light of audits, Donor, WB and GOB agreed on a Fiduciary Risk Management Action Plan to address these weaknesses, but PFM remained an area of significant concern for GAC and having WB as administrator for the donor's funds was a critical mitigation. DPs depended on the Bank's guidance and advice during the implementation of the SWAp.

32. There was strong performance and good results in many areas but overly centralized planning and implementation, along with the division in the Ministry between health services and family planning, continued to result in inefficiencies. Limited Human resources was a major bottleneck with very limited progress during implementation. In terms of health systems, digital information systems (HMIS, FP LMIS, HRMIS, etc.) were quite commendable during HPNSDP implementation. Midterm Review of HPNSDP also shows some commendable milestones achievement in the area of procurement and budget execution. The fiduciary risk mitigation was very weak. The GoB used World Bank system of procurement. The financial accounts system is not computerized.

33. Regarding the management of fiduciary risk and for the follow-up of audit observations, there was concern about the level of government commitment to reply or to do follow-up to the audit observations on funds mismanagement and to do an enquiry. The GoB continued to express unwillingness to accuse people without verification, but their investigations did not reach any conclusions.

34. DPs visited some District and Dhaka Hospitals as part of DLI verification to assist the Bank. DPs were generally satisfied with the progress of achievements.

35. Regarding the World Bank performance, the experience was positive. The WB kept us informed through the

regularly scheduled Pooled Fund Donor meetings and through ad hoc meetings when issues arose that required more extensive discussion. The World Bank's oversight (including on procurement) was a critical part of GAC's fiduciary risk management. Coordination was through the donor consortium which was not chaired by the WB during a certain period but by WHO and USAID. WB was a regular presence at DP coordination meetings and provided excellent technical input to discussions (particularly Bushra).

36. WB also provided much needed technical support to GoB and was viewed by Gov't as a critical partner. WB had one of the strongest voices at policy dialogue tables with GoB. Overall, Canada had a very good relationship with the World Bank on the HPNSDP.

37. There were deficiencies and delays in implementation, and in the last year of implementation of the 3rd Health SWAp, the Bank provided an additional US$150 million, extended the period of implementation by one year, and unilaterally changed the implementation modality to Disbursement Linked Indicators (DLIs). Canada and other Development Partners were not happy about this unilateral change (without or with very little consultation). Canada wrote a letter to the Bank to this effect.

38. We also had some concerns related to the initial planning of the next phase of the health sector SWAP. In that instance, there were problems with WB communication with both DPs and the GoB around the move to performance based financing. World Bank Dhaka office did their best – the lack of communication came from the Washington design team. For the 4th HPN there seems to be a lack of willingness by the WB to document and follow-up on the resolution of the audit observations from the 3rd Swap and to inform DPs on what is happening and how these will be resolved. We want to ensure that there is due diligence on the follow-up and the resolution of the audit information.

39. The WB should continue to focus on: 1) Improving the governance of the health systems; 2) improving the financial and audit systems, including the process for dealing with audit observations; and 3) improving the MOHFW procurement systems. The Banks has been a key player during the implementation of the 3 Health SWAps, which is over 15 years.

ANNEX 6. SUPPORTING DOCUMENTS (IF ANY)

Bangladesh Demographic and Health Survey Reports 2011 and 2014.

Black, Robert E., Ramanan Laxminarayan, Marleen Temmerman, and Neff Walker, Editors. (2016), *Reproductive, Maternal, Newborn, and child Health*, Disease Control Priorities, Third Edition (Volume 2), Ed. Washington (DC): The International Bank for Reconstruction and Development/World Bank; Apr 5, 2016. ISBN-13: 978-1-4648-0348-2ISBN-13: 978-1-4648-0368-0.

Bobadilla, J.L, Cowley, P, Musgrove, P and Saxenian, H. (1994), *The Essential Package of Health Services in Developing Countries*, The World Bank, 1994.

Government of the People's Republic of Bangladesh, MOHFW – Health Economic Unit (2012) *Expanding Social Protection for Health Towards Universal Coverage – Health Financing Strategy 2012-2032, Ed.* MOHFW, Dhaka, September 2012.

Government of the People's Republic of Bangladesh, MOHFW (2015). Bangladesh National Health Accounts 1997 – 2012. Dhaka: Research Paper No. 42a. Dhaka: Health Economics Unit, Ministry of Health and Family Welfare, Government of the People's Republic of Bangladesh.

Government of the People's Republic of Bangladesh, MOHFW (2017), *Report on End-Line Evaluation of the Health, Population and Nutrition Sector Development Program (HPNSDP): July 2011- December 2016, Ed. MOHFW, Dhaka, March, 2017.*

Government of the People's Republic of Bangladesh, MOHFW (2015), Estimating costs of providing the ESP in Bangladesh, unpublished document, Ed. MOHFW, Dhaka, 2015.

Government of the People's Republic of Bangladesh, MOHFW (2016), *Annual Program Implementation Report (APIR) of the HSDP Project,* Dhaka, 2016.

WHO, UNICEF, UNFPA, World Bank Group, and the United Nations Population Division (2015). *Trends in Maternal Mortality: 1990 to 2015*. Geneva, World Health Organization, 2015.

World Bank (1994), *Health Financing Revisited, chapter 7, Financing Health in Low Income Countries*, The World Bank, Washington (DC), 1994

World Bank (2009), *Country Assistance Strategy for the People's Republic of Bangladesh – FY10-12*, Report No. 54615-BD, The World Bank, Washington (DC), 2009.

World Bank (2011), *Health Sector Development Project (HSDP) Project Appraisal Document (PAD),* Report No. 59979–BD, The World Bank, Washington (DC), May 3, 2011.

World Bank/IEG (2013), *Implementation Completion and Results Report Review* (ICRR No. 14043), Washington (DC), March 10, 2013.

World Bank (2013), *Country Assistance Strategy Progress Report (CASPR) for the People's Republic of Bangladesh for the*

Period FY11-15, Report No. 73983-BD, The World Bank, Washington (DC), 2013

World Bank (2016), *Country Partnership Framework for Bangladesh for the Period FY16-FY20*, Report No. 103723-BD, March 8, 2016.

World Bank (2016), *HSDP Additional Financing, Report* No. PAD1383, The World Bank, Washington (DC) June 8, 2016.

World Bank (2017), Health Systems Strengthening Project (HSSP), Report No: PAD2355, The World Bank, Washington (DC), July 7, 2017.

World Health Organization – WHO (2015), *Bangladesh Health System Review*, Ed. WHO, Geneva, 2015.

United Nations (UN) Inter-Agency Group for Child Mortality Estimation (UNICEF, WHO, World Bank, UN DESA Population Division) at *www.childmortality.org*.

UN – Population Projections *https://esa.un.org/unpd/wpp/Publications/Files/WPP2017_KeyFindings.pdf*)

Institute of Health Metrics and Evaluation – IHME (2017), Burden of Diseases Data *http://ghdxhealthdata.org/gbdresultstool*, University of Washington State (assessed in October, 2017)

ANNEX 7. MAP


BANGLADESH
HEALTH SECTOR SUPPORT PROJECT
DIVISIONS OF SPECIAL FOCUS
DISTRICT CAPITALS
DIVISION CAPITALS
NATIONAL CAPITAL
DISTRICT (ZILA) BOUNDARIES
DIVISION BOUNDARIES
INTERNATIONAL BOUNDARIES
BHUTAN
INDIA
INDIA
INDIA
MYANMAR
BANGLADESH
RAJSHAHI
DHAKA
KHULNA
BARISAL
SYLHET
CHITTAGONG
DHAKA
Mouths of the Ganges
Bay of Bengal
IBRD 43006 | JUNE 2017