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Report No: PAD1351

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A PROPOSED CREDIT

IN THE AMOUNT OF SDR 6.1 MILLION
(US$8.3 MILLION EQUIVALENT)

AND A

PROPOSED GRANT

IN THE AMOUNT OF SDR 5 MILLION
(US$6.8 MILLION EQUIVALENT)

TO THE

REPUBLIC OF GUINEA

FOR A

PRIMARY HEALTH SERVICES IMPROVEMENT PROJECT

May 7, 2015

Health, Nutrition and Population Global Practice
Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective 31/03/2015)

Currency Unit	=	CFAF
CFAF 619.621	=	US$1
US$1.36	=	SDR 1

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
AfD	*Agence Française de Développement* (French Development Agency)
ATS	*Agent Technique de Santé* (Technical Health Worker)
ATS	Nursing Assistants
BEPC	*Brevet d'Études du Premier Cycle* (Diploma of Studies for the first Cycle of Secondary Education)
CBA	Cost-Benefit Analysis
CHW	Community Health Workers
CMU	Country Management Unit
CoGes	Health Facility Management Committee
CP3C	*Cadre Permanent de Concertation des Corps de Contrôle* (Permanent Consultation Framework)
CQS	Consultant's Qualification
DA	Designated account
DHS	Demographic and Health Survey
DL	Disbursement Letter
DPS	*Directions Préfectorales de Santé* (District Health Directorate)
EA	Environmental Assessment
EERP	Emergency Ebola Response Project
EMONC	Emergency Obstetric Care
EPI	Expanded Program on Immunization
EU	European Union
EVD	Ebola virus disease
FM	Financial Management
FP	Family Planning
FY	Fiscal Year
GDP	Gross Domestic Product
GNF	Guinea National currency
GNI	Gross National Income
GRS	Grievance Redress Service
HER	Health Sector Public Expenditure Review
HMIS	National Health Management Information System
HRH	Human Resources for Health

IAS	International Accounting Standards
IBRD	International Bank for Reconstruction and Development
IC	Individual Consultant
ICB	International Competitive Bidding
ICR	Implementation Completion Report
IDA	International Development Agency
IDE	*Infirmier Diplômé d'État* (State Certified Nurse)
IFC	International Finance Corporation
IFRs	Interim Financial Report
IMCI	Integrated Management of Childhood Illness
IMF	International Monetary Fund
ITN	Insecticide Treated Bed Nets
IYCF	Infant and Young Child Feeding
JSI	John Snow International
KPI	Key Performance Indicator
LCS	Least Cost Selection
M&E	Monitoring and Evaluation
MCHN	Maternal, Child Health and Nutrition
MFM	Macro Fiscal Management
MG	*Médecin Généraliste* (General Practitioner)
MHP	Maternal Health Program
MoH	Ministry of Health
MoU	Memorandum of Understanding
MQAS	Model Quality Assurance System
MSHP	Ministry of Public Health and Hygiene
NCB	National Competitive Bidding
NGOs	Non-Governmental Organization
OP BP	Operational Policy/Bank Policy
OP	Operational Policy
ORS	Oral rehydration salts
PAD	Project Appraisal Document
PCG	*Pharmacie Centrale de Guinée* (National Central Medical Store)
PCN	Project Concept Note
PCU	Project Coordination Unit
PDO	Project Development Objective
PECIMNE	Comprehensive Care for Diseases of Newborn and Children
PFS	Project Financial Statement
PMTCT	Prevention of Mother to Child Transmission
PNLOC	National Program for Onchocerciasis and Blindness
PPR	Post Procurement Reviews
QBS	Qualifications-Based Selection
QCBS	Quality-and Cost-Based Selection
RBF	Results-Based Financing
SOE	Statement of Expenditures
TA	Transaction Account
TTL	Task Team Leader

UN	United Nations
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	The United Nations Children's Fund
USAID	The United States Agency for International Development
WB	World Bank
WDI	World Development Indicators
WHO	World Health Organization

Regional Vice President:	Makhtar Diop
Country Director:	Ousmane Diagana
Senior Global Practice Director:	Timothy Grant Evans
Practice Manager:	Trina Haque
Task Team Leaders:	Ibrahim Magazi, Christopher H. Herbst

REPUBLIC OF GUINEA

PRIMARY HEALTH SERVICES IMPROVEMENT PROJECT

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PAD DATA SHEET

Guinea

GN PRIMARY HEALTH SERVICES IMPROVEMENT PROJECT (P147758)

PROJECT APPRAISAL DOCUMENT

AFRICA

Report No.: PAD1351

Basic Information			
Project ID P147758	EA Category B - Partial Assessment		Team Leader(s) Ibrahim Magazi, Christopher H. Herbst
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ ]		
	Financial Intermediaries [ ]		
	Series of Projects [ ]		
Project Implementation Start Date May, 20, 2015	Project Implementation End Date April 30, 2020		
Expected Effectiveness Date 01-Sep-2015	Expected Closing Date September 30, 2020		
Joint IFC No			
Practice Manager/Manager Trina S. Haque	Senior Global Practice Director Timothy Grant Evans	Country Director Ousmane Diagana	Regional Vice President Makhtar Diop
Borrower: Ministry of Finance			
Responsible Agency: Ministry of Health			
Contact: S.E.M. Colonel Remy Lamah		Title:	*Ministre de la Santé et de l'Hygiène Publique* (Ministry of Public Health and Hygiene)
Telephone No.: +224 657 107310		Email:	dremylamah@gmail.com

Project Financing Data(in USD Million)					
[ ]	Loan	[X]	IDA Grant	[ ]	Guarantee
[X]	Credit	[ ]	Grant	[ ]	Other

Total Project Cost:	15.1	Total Bank Financing:	15.1
Financing Gap:	0.00		

Financing Source	Amount
BORROWER/RECIPIENT	0.00
IDA Credit	8.3
IDA Grant	6.8
Total	15.1

Expected Disbursements (in USD Million)

Fiscal Year	2016	2017	2018	2019	2020	2021
Annual	0.75	2.27	4.53	4.53	3.02	0
Cumulative	0.75	3.02	7.55	12.08	15.1	15.1

Institutional Data

Practice Area (Lead)

Health, Nutrition & Population

Contributing Practice Areas

Cross Cutting Topics

[ ] Climate Change
[X] Fragile, Conflict & Violence
[X] Gender
[X] Jobs
[ ] Public Private Partnership

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %

Health and other social services	Health	100		
Total		100		

☑ I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Human development	Child health	20
Human development	Other communicable diseases	20
Human development	Health system performance	20
Human development	Nutrition and food security	20
Human development	Malaria	20
Total		100

Proposed Development Objective(s)

The objective of the Project is to improve the utilization of maternal, child health and nutrition services at the primary level of care in Target Regions**.** This will be achieved by supporting the government (a) strengthen supply, (b) strengthen demand, and (c) strengthen supervision and management capacity, for maternal and child health services, in the poorest regions of Guinea.

The project target regions are two of the poorest in Guinea, Faranah and Labe, which were selected based on a number of criteria detailed in section A of Annex 2 of this Project Appraisal Document (PAD). Both regions cover a total of nine out of 34 districts in Guinea: the Labe Region encompasses five districts (Mali, Koubia, Tougue, Lelouma, Labe) and the Faranah region encompasses four districts (Faranah, Dinguiraye, Dabola, Kissidougou).

The immediate project beneficiaries are women and children dependent on primary health services for their needs. By targeting two of the poorest regions in Guinea, and focusing on service delivery at the primary level of the health system, the project will target the poorest. The Public Expenditure Review (PER) has shown that health facilities at the lower end of the health system (health posts, and health centers), are much more likely to serve females, rural residents, the young, the poor, and less educated than higher level facilities (secondary and tertiary level facilities).

Components

Component Name	**Cost (USD Millions)**[1]
Component 1: Commodities and trained human resources for	6.00

[1] US$ 100,000 will remain unallocated

MCHN services at primary level	
Component 2: Strengthen community-level demand for MCHN services	4.00
Component 3: Strengthen government capacity to plan, implement, monitor and supervise activities	5.00

Systematic Operations Risk- Rating Tool (SORT)	
Risk Category	**Rating**
1. Political and Governance	Substantial
2. Macroeconomic	High
3. Sector Strategies and Policies	Substantial
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Low
8. Stakeholders	Low
9. Other	High
OVERALL	Substantial

Compliance		
Policy		
Does the project depart from the CAS in content or in other significant respects?	Yes [ ]	No [X]
Does the project require any waivers of Bank policies?	Yes []	No [X]
Have these been approved by Bank management?	Yes []	No [ ]
Is approval for any policy waiver sought from the Board?	Yes [ ]	No [X]

Explanation:

There are no waivers required. However, as approved by Bank Management (Acting Regional Vice President, March 20, 2015) the project is applying paragraph 12 of OP 10.00 enabling it to be processed with additional flexible procedures. The project is deferring key fiduciary and environmental requirements to the implementation phase.

The proposed project meets the first criteria i.e., urgent need of assistance because of man-made disaster as well as the second criteria: capacity constraints because of fragility or specific vulnerabilities. The

Ebola crisis and corresponding recovery effort has affected regular maternal and child health services, absorbing much of the funding originally allocated towards such services, and significantly stretching management and service delivery capacity of the Ministry of Health. Preventable deaths of mothers and children are occurring because of the need to focus all financial and human resources on the Ebola response effort and the reluctance of the general population to access the health system (for fear of contamination, lack of trust, lack of affordability due to impoverishment, and lack of available services). Regular medical consultations have declined by more than 50 percent. The proposed project seeks to strengthen maternal and child health service utilization, by making available urgently needed medicines and health workers, generating demand and trust in the public health system, and strengthening overall resilience of the Guinean health system to help prevent any future epidemic outbreak.

Does the project meet the Regional criteria for readiness for implementation?	Yes [X]	No [ ]

Safeguard Policies Triggered by the Project	**Yes**	**No**
Environmental Assessment OP/BP 4.01	X	
Natural Habitats OP/BP 4.04		X
Forests OP/BP 4.36		X
Pest Management OP 4.09		X
Physical Cultural Resources OP/BP 4.11		X
Indigenous Peoples OP/BP 4.10		X
Involuntary Resettlement OP/BP 4.12		X
Safety of Dams OP/BP 4.37		X
Projects on International Waterways OP/BP 7.50		X
Projects in Disputed Areas OP/BP 7.60		X

Legal Covenants

Name	**Recurrent**	**Due Date**	**Frequency**
Establish Project Steering Committee		12/01/2015	Once

Description of Covenant

The Recipient shall, within three (3) months of the Effective Date established, and throughout Project implementation, maintain the Steering Committee, whose mandate, composition, and resources shall be satisfactory to the Association.

Name	**Recurrent**	**Due Date**	**Frequency**
Annual Work Plan	X		Yearly

Description of Covenant

Each calendar year, the Recipient shall prepare a plan of activities (including Training and Operating Costs) proposed for inclusion in the Project during the following calendar year, including: (a) a detailed timetable for the sequencing and implementation of such activities; and (b) a proposed budget and financing plan for such activities. The Recipient shall furnish such program of activities to the Association as soon as available and in any case no later than November 30 each year, for its review and approval by the Association; except for the program of activities for the first year of Project implementation, which shall be furnished no later than one (1) month after the Effective Date.

Name	Recurrent	Due Date	Frequency
Adoption of Waste Management Plan		10/01/2015	

Description of Covenant

The Recipient shall, within one month of the Effective Date, adopt the National Medical Waste Management Plan (NSMWP).

Name	Recurrent	Due Date	Frequency
Recruitment of External Auditor		02/01/2016	

Description of Covenant

The Recipient shall, not later than five (5) months after the Effective Date, recruit the external auditor referred to in Section 4.09 of the General Conditions, in accordance with Section III of Schedule 2 of this Agreement and pursuant to terms of reference satisfactory to the Association.

Name	Recurrent	Due Date	Frequency
Accounting Software		11/01/2015	

Description of Covenant

The Recipient shall, not later than two (2) months after the Effective Date, acquire, install and thereafter maintain during the entire period of implementation, an accounting software acceptable to the Association.

Conditions

Source Of Fund	Name	Type
	Establishment of PCU and adoption of PIM	Effectiveness Conditions

Description of Condition(s)

There are two effectiveness conditions: (1) A Project Coordination Unit (PCU) has been established by the Recipient; and (2) The Project Implementation Manual (PIM) has been adopted by the Recipient. The effectiveness deadline is the date ninety (90) days after the date of

the Financing Agreement.

Conditions

Source Of Fund	Name	Type
		Disbursement Conditions

Description of Condition(s)

The following disbursement conditions have been agreed upon:

No withdrawal shall be made:

(a) for payments made prior to the date of the Financing Agreement.

(b) under Category 2 until the following conditions have been met: (a) a Payment Service Provider has been recruited through a competitive process; (b) the Recipient has concluded a Service Agreement with the Payment Service Provider; and (c) a list of Eligible Beneficiaries has been prepared in a manner satisfactory to the Association and consistent with rules and procedures established in the Project Implementation Manual.

(c) under Category 3 until a list of eligible Community Health Workers (CHWs) has been prepared in a manner satisfactory to the Association and consistent with the applicable rules and procedures established in the Project Implementation Manual, such a list to be updated on an annual basis.

Team Composition

Bank Staff

Name	Role	Title	Unit
Ibrahim Magazi	Team Leader 1 (ADM Responsible)	Senior Health Specialist	GHNDR
Christopher H. Herbst	Team Leader 2 (and HRH Specialist)	Health Specialist	GHNDR
Alpha Mamoudou Bah	Procurement Specialist	Senior Procurement Specialist	GGODR
Celestin Adjalou Niamien	Financial Management Specialist	Sr Financial Management Specialist	GGODR
Aissatou Chipkaou	Team Member (Operations Advice)	Operations Analyst	GHNDR
Dominic S. Haazen	Team Member, Overall Quality Advisor/Costing	Lead Health Policy Specialist	GHNDR
Edson Correia Araujo	Team Member (Economic Analysis)	Senior Economist	GHNDR

Eric Christian Thibaut Mallard	Team Member (Pharmaceutical Specialist)	Senior Health Specialist	GHNDR
Thierno Hamidou Diallo	Team Member	Disbursement Assistant	AFMGN
Haidara Ousmane Diadie	Team Member (Financial Access component Specialist(	Senior Health Specialist	GHNDR
Maman-Sani Issa	Safeguards Specialist	Senior Environmental Specialist	GENDR
Maud Juquois	Team Member (RBF Specialist)	E T Consultant	GHNDR
Safiatou Lamarana Diallo	Team Member (Operations Advice Guinea CMU)	E T Consultant	AFMGN
Salimatou Drame-Bah	Team Member	Program Assistant	AFMGN
Jenny Gold	Team Member (M&E and RF advisor)	Senior Health Specialist	GHNDR
Faly Diallo	Team Member (Finance)	Financial Officer	WFALA
Siobhan McInerney-Lankford	Country Lawyer	Senior Council	LEGAM

Extended Team

Name	Title	Office Phone	Location

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments

Consultants (Will be disclosed in the Monthly Operational Summary)

Consultants Required ? No

I. STRATEGIC CONTEXT

A. Country Context

1. Despite its recent transition to democracy, Guinea remains one of the poorest countries in the world. Emerging from political isolation, instability and military rule, Guinea has recently embarked on a path of long-term development. However, a legacy of political instability, insecurity and governance challenges has limited the potential for shared prosperity with respect to Guinea's vast natural wealth. Guinea's per capita income was approximately US$497 in 2011, less than half the regional average, and the majority of the population continues to live in extreme poverty given elusive and volatile economic growth. Poverty in Guinea has been increasing despite its rich agricultural and mineral resources. In 2012, 55.2 percent of the Guinean population lived under poverty compared with 53 percent in 2007 and 40.3 percent in 1995 respectively. Rural poverty is more widespread (64.7 percent) than urban poverty (32.1 percent). The regions of Nzerekore, Faranah and Labe are the poorest in the country (see poverty analysis by region in Annex 2). Out of 182 countries[2] in the world, Guinea is ranked 170th in 2005 and 178th in 2012 on UNDP Human Development Index.

2. Ebola has taken a major toll on families, communities and the economy and current efforts are geared to help Guinea contain the virus. The Ebola crisis, which first emerged in December 2013, is further escalating poverty and suffering, as livelihoods and businesses are disrupted. The crisis has led to lower-than-projected economic performance, with economic growth revised downward from 4.5 percent to 2.4 percent of GDP in 2014. The Bank has already mobilized funds to help Guinea contain the virus as part of an international support effort. A multi-million dollar Ebola Emergency Response Operation was approved by the World Bank's Executive Board on September 16, 2014, with funds underway to support Guinea finance Ebola-containment efforts and help families and communities cope with the economic impact of the crisis. In addition, a macroeconomic and fiscal support operation was also recently approved and is structured around two pillars: (i) building resilience to combat Ebola and (ii) strengthening budget management to improve government capacity to manage Ebola spending.

3. The Ebola crisis was a direct result of an extremely weak health system, now weakened further by the epidemic itself. The corresponding recovery effort has affected regular maternal and child health services, absorbing much of the funding originally allocated towards such services, and significantly stretching management and service delivery capacity of the Ministry of Health. Preventable deaths of mothers and children are occurring because of the immediate need to focus all financial and human resources on the Ebola response effort and the reluctance of the general population to access the health system (for fear of contamination, lack of trust, lack of affordability due to impoverishment, and lack of available services). Table 1, shows the detrimental impact of Ebola on a number of service delivery indicators in Guinea, with regular consultations for example having declined by more than 50 percent.

[2] Human Development Index, United Nations Development Program.

Table 1 – Impact of Ebola on utilization of select health services

Indicator	Period		2014 as % of 2013
	Jan. – Aug. 2013	Jan. – Aug. 2014	
Consultations	2,939,800	1,224,689	42
Facility based delivery	44,800	39,657	89
Hospitalizations	71,052	32,879	46
Immunization	224,000	157,432	70

Source: MOH, September 2014 (hospital data)

B. Situations of Urgent Need of Assistance or Capacity Constraints

4. Urgent support is needed to address the immediate health service delivery needs for mothers and children in Guinea. The Ebola crisis and corresponding recovery effort has affected regular maternal and child health services, absorbing much of the funding originally allocated towards such services, and significantly stretching management and service delivery capacity of the Ministry of Health**.** Accordingly, this project is applying paragraph 12 of OP 10.00 to be processed through additional flexible procedures. Some of the fiduciary and environmental requirements (as further clarified in the relevant sections of this PAD) will be deferred to the implementation phase.

C. Sectoral and Institutional Context

5. The health system in Guinea is severely capacity constrained and underfunded. Despite a move towards decentralization, sub-national authorities including regional health directorates and district level health authorities (prefectures) lack the funding, incentives and motivation to be effective. Sub-national administrative bodies and health facilities are headed by civil servants, tied to government process rigidities with little capacity. Per capita spending on the health system is extremely low and has varied between 0.2-6.9 percent in 2005, with only 2.7 percent of the national budget allocated to health in 2012 (Public Expenditure Review (PER) 2014). Using 2010 World Development Indicators (WDI) data, which slightly overestimates the total share of the health sector, shows that Guinea is one of the worst performers on per capita spending in the region (Table 2). The 2014 PER highlights the lack of funds invested into the health sector in Guinea as the underlying issue in the delivery of health services. The health system is largely funded by out of pocket expenditures (public facilities largely act like private providers). Some donor contributions towards the delivery of services are channeled through the MOH, however a significant amount is directly channeled to NGOs or the health facilities directly.

6. Combining all sources, health expenditures in Guinea in 2012 were approximately GNF 1.7 trillion, or 4.3 percent of GDP. Of this amount, funds budgeted for the Ministry of Public Health and Hygiene (MSHP, or simply MoH) and other ministries, and paid for by general tax revenue—that is Guinean central government's own sources—was approximately GNF 211 billion. This accounted for only half a percent of the GDP and 13 percent of all health expenditures in Guinea. International funding and technical assistance was the second largest source of resources at GNF 467 billion, which amounted to 28 percent of all health expenditures and 1.2 percent of the GDP. The bulk of these funds were technical assistance going to specific projects and under the control

of the donor entities; only four percent of the international funds were recorded on MSHP's budget as external finance. The lion's share of resources was supported by households as out-of-pocket health expenditures. Households spent nearly GNF 1 trillion on health related expenditures, which is 60 percent of all health expenditures in Guinea in 2012, and 2.6 percent of the GDP (PER, 2014).

Table 2 – International comparisons of per capita health spending for Guinea, 2010

Country	Per capita total spending on health in current US$	Per capita total spending on health in PPP (constant 2005 international $)	Per capita public spending on health in current US$	Per capita public spending on health in PPP (constant 2005 international $)
Benin	31.1	65.4	15.4	32.4
Burkina Faso	39.8	92.6	20.3	47.2
Côte d'Ivoire	59.7	97.6	12.9	21.1
Ghana	67.0	84.9	39.9	50.5
Guinea	**23.0**	**56.3**	**2.6**	**6.4**
Liberia	29.2	49.3	9.5	16.0
Mali	31.7	55.6	14.7	25.9
Mauritania	42.7	79.0	22.7	42.0

Source: WDI, 2012

7. The Ebola crisis has further limited the funding available for critical priority services beyond Ebola: service delivery disruptions and impoverishment have reduced income generation from user fees, and existing limited government and donor funds have been redirected towards the Ebola response effort. Some of the government's most important health programs, such as the Expanded Program on Immunization (EPI), Comprehensive Care for Diseases of Newborn and Children (PECIMNE), as well as the Maternal Health Program (MHP) which have never received much funding and support, are entirely underfunded today. This is particularly problematic, given that maternal health complications, communicable diseases, in particular Malaria, and certain children's diseases including viral and respiratory infections and diarrhea constitute major health problems in Guinea. The private sector picks up some of the non- Ebola related service delivery needs and demands, however is located mainly in urban Conakry, benefiting higher income populations.

8. Funding for health is not only extremely limited, but its use has been highly inequitable and inefficient. Already prior to Ebola, funds were not directed to regions or health programs of greatest need. The 2014 PER found that most of the limited public sector funds are linked to, and spent on, a centralized bureaucracy and health worker salaries[3], largely benefiting Conakry. Since 2005, expenditures for health programs (as listed above) constitute less than seven percent of the Ministry of Health budget. And because cost recovery tends to be much stronger at higher levels of the health pyramid (explaining also why the private sector is mainly in Conakry), lower level facilities are particularly underfunded, and primarily reliant on external support. The potential for mining and aluminum companies to contribute towards financing the health sector, beyond their staff, remains unexplored and untapped. One bottleneck to leveraging of funds, greater equity and efficiency of spending lies in the government's budget nomenclature, which does not allow for adequate tracking of expenditures by source or program areas (PER 2014).

[3] Covering only very few health workers, with the rest funded by the private sector, donors, or resulting in high levels of health worker unemployment as many health workers are not covered at all

9. Despite some improvements, Guinea is among the lowest performers in the region in terms of health outcomes. Life expectancy at birth increased from 43 years to 53 years by the end of 2010, linked to improved access to medication and vaccinations. The 2013 maternal mortality ratio per 100,000 births for Guinea was 650, compared with 859.9 in 2008 and 964.7 in 1990.[4]Although the child mortality rate has decreased from 154 per 1,000 live births in 2002 to 101 per 1,000 live births in 2013, the rate remains high when compared with the rest of the region. Improvements in health outcomes are often linked to the 1990s when Guinea experimented with community based development of health services[5], through the Bamako initiative. A period of macro-economic and fiscal instability that followed stifled some of this progress. By 2013, Guinea was amongst the worst performers in the region on key health outcomes (Table 3), all of which are likely to have significantly worsened under Ebola.

Table 3 – Comparison of basic health outcome indicators across West African countries

Country	Life Expectancy at Birth	Mortality rate per 1,000 births	Mortality Rate, Under-5 (per 1000)	Maternal Mortality Ratio (per 100,000)
Benin	59.1	56.2	85.3	340
Burkina Faso	55.9	64.1	97.6	400
Cote d'Ivoire	50.4	71.3	100.0	720
Ghana	60.9	52.3	78.4	380
Guinea	**55.8**	**64.9**	**100.7**	**650**
Guinea-Bissau	54.0	77.9	123.9	560
Liberia	60.2	53.6	71.1	640
Mali	54.6	77.6	122.7	550
Mauritania	61.4	67.1	90.1	320
Nigeria	52.1	74.3	117.4	560
Senegal	63.2	43.9	55.3	320
Sierra Leone	45.3	107.2	160.6	1,100
Togo	56.2	55.8	84.7	450

Source: The World Bank Databank (downloaded December 1, 2014, database updated November 7, 2014)

10. Child mortality is predominantly linked to low complete vaccination coverage, low Insecticide Treated Nets (ITN) coverage and high rates of malnutrition. Although vaccination coverage rates have improved - national Vaccination against measles is a relatively high (61. Percent), - the percentage of children who have been completely vaccinated nationally is only 36.1 percent. The prevalence of Malaria parasites is another significant problem, with Malaria the leading cause of morbidity and mortality in health facilities today. In general, only 47 percent of households have access to ITNs with only 26 percent of under-five children reported to have slept under a mosquito net (or under an ITN) the night before a recent DHS survey. The situation is made worse by the fact that nearly 31 percent of children under the age of five are showing signs of chronic malnourishment (weight for height <2SD), and nearly half of this group, about 13.7 percent, are severely stunted (Table 4). Seventy-seven percent of children aged between 6-59

[4] United Nations Population Fund (2011) The State of World's Midwifery 2011: Delivering Health, Saving Lives. Subsequent reports by the MoH suggest maternal mortality to be as high as 724.

[5] For further details, see a series of articles written by Daniel Levy-Bruhl et.al. that appeared in the International Journal of Health Planning and Management, Special Issue: Sustainability of Primary Health Care including Immunizations in Bamako Initiative Programs in West Africa: An Assessment of 5 Year's Field Experience in Benin and Guinea, published in 1997.

months old are anemic. Acute respiratory infections, fever and dehydration caused by severe diarrhea all contribute to child mortality rates.

11. Maternal health and mortality is linked to low levels of birth attendance and low quality pre-natal care. The Maternal mortality ratio in Guinea is high with 650 deaths per 100,000 live births, compared to the average of 510 in the SSA region. Nationally only 45 percent of births are attended by a health worker, and only half of those mothers report having delivered their baby in a health facility (PER, 2014). Although about 85 percent of mothers in 2012 reported having some form of pre-natal health consultations (at least one visit), up from about 57 percent in 1992, the quality of such consultations, follow up activities, and complementary activities remains to be assessed.

12. Mothers and children in rural areas are significantly worse off than their urban counterparts. Measles vaccination rates are 74.7 percent in urban areas and 57.2 percent in rural areas respectively. In the rural areas only 33.5 percent of children have been completely vaccinated compared with 45 percent in the urban areas. The prevalence of malaria among children also varies according to geographical location of a child, with rates more pronounced in rural areas (53 percent) than in urban areas (18 percent). In Conakry, less than five percent of children have tested positive for Malaria in a recent survey, compared with 66 percent in the Faranah region (PER 2014). Lack of access to mosquito nets and inadequate diagnosis and treatment within 24 hours is a key problem. On nutrition, comparison across provinces also shows that 79 percent of rural children against 69 percent of urban children are affected by anemia. And the weight for height ratio is more than twice as problematic in rural areas as urban areas. On maternal health, whilst 81.9 percent of births in urban areas attended by skilled personnel, attendance in rural areas is only 31.6 percent.

Table 4 – Select Service Delivery indicators by Place of Residence in Guinea, 2012

	Maternal Health		**Child Health**		
	Rate of prenatal visits with a trained professional	**Rate of births attended by a trained professional**	**Weight-for-Height (<-2SD)**	**Measles immunization coverage**	**Fully immunized children**
Aggregate	***85.2***	***45.3***	***31.2***	***61.8***	***36.5***
Place of residence					
Urban	96.3	83.9	17.5	74.7	45
Rural	**80.8**	**31.6**	**35.9**	**57.2**	**33.5**
Urban/rural ratio	***1.2***	***2.7***	***0.5***	***1.3***	***1.3***
Administrative region					
Boké	85.1	39.9	28.1	60.6	41.0
Conakry	96.1	91.1	14.5	80.5	43.5
Faranah	89.6	29.1	30.7	53.8	29.4
Kankan	79.4	43.5	31.9	54.0	39.8
Kindia	82.0	41.1	30.5	64.8	36.3
Labé	73.3	31.9	36.9	42.8	23.9
Mamou	72.5	20.7	40.8	47.0	19.3
Nzerekore	92.7	42.5	37.9	73.0	43.3

Source: 2012 DHS

13. A key bottleneck to the delivery of services is the shortage of sufficiently skilled health workers, particularly at the primary level. Guinea has long had an insufficient and inequitable distribution of skilled health workers to carry out facility-based and outreach activities especially in the prevention and management of childhood illnesses, midwifery, and obstetric complications (Table 5). Whilst physicians, midwives and nurses are few in number, and largely produced for, and employed in, secondary, tertiary and private facilities in urban areas[6], the majority of the population and the poor depend on nursing assistants (ATS) and community health workers which are better represented at health center and community levels[7]. ATS hold great potential to fill key gaps of higher level cadres: Guinea has produced a large number of ATS, however the limited absorption capacity of the public sector (in terms of fiscal space) means many of them remain unemployed (or work outside the public sector). Moreover, their training and thus competency remains sub-optimal particular with regards to maternal health (they lack competencies in skilled birth attendance). Similarly, community Health Workers, despite their acceptance and respect within their communities (PER, 2014), do not receive standardized training, and their roles are not adequately optimized to support Maternal, Child Health and Nutrition (MCHN) (in terms of supporting a horizontal package of health promotion and basic services).

14. The human resource challenge is compounded by the frequent shortages of MCHN commodities and supplies, primarily because of limited fiscal space allocated towards health, and because of constrained income generation of primary health facilities in rural areas vis a vis larger facilities in urban areas (and now further under Ebola). The National Central Medical Store (PCG), which has received significant TA from donors in recent years, holds promise to carry out its functions with regards to procurement and delivery. It is well connected to decentralized warehouses across the country (including one in Faranah and Labe Regions, connected by new roads). The key and critical bottleneck for the provision of medicines and supplies lies with the lack of funding for procurement (both at the PCG and the facility level drug revolving funds) and distribution.

Table 5: Select Health Worker to Population Ratio (2012- MOH)

Category	Conakry	Interior
Physicians	1 :2 675	1 :13 240
Pharmacists	1 :10 484	1 :262 297
Nurses	1 :2 025	1 :10 607
Midwives	1 :8 298	1 :85 132
Nursing Assistants (ATS)	1 :1 227	1 :3 257

Note: 17 percent of health professionals in the public sector are in rural areas to cover 70 percent of the population, against 83 percent in urban areas to cover 30 percent of the population.

15. Supportive supervision of the primary level largely only happens on theory. Regular supportive supervision is globally linked to improved service delivery performance. In Guinea, despite their mandate, the district health authority, staffed with a small team of health professionals, face a number of key bottlenecks preventing them from actively and regularly carrying out supportive supervision, including: (a) Lack of clear action plans on supervision: there is no clear action plan on supportive supervision at district level despite the general consensus about its importance. (b) Budgetary constraints: no specific budget allocation for

[6] Doctors and nurses receive their training largely in urban environments.
[7] Nursing assistants are trained in 4 decentralized training institutions, and community health workers usually within their community around vertical competencies.

supervision is available; (c) Inadequate skills for supportive supervision: most district managers with clinical, medical or nursing training have not had adequate training in health management to enable them to carry out effective supportive supervision; (d) Low motivation: most district health managers, like other health workers, are not sufficiently motivated to carry out supervisory functions due to low salaries, limited incentives and limited opportunities for career development as a manager; (e) Lack of transport and logistics: district health managers often have limited access to transport and other logistics required to enable them to undertake frequent supervisory visits in their districts; (f) Heavy workload*:* many of the district managers actually perform clinical roles (as they have clinical backgrounds), which leaves them with very little time to perform their managerial and administrative functions.

16. On the demand side, lack of information, long distances to health centers, and the inability to pay for care all further constrain the utilization of services. The low level of education (33 percent of women and 60 percent of men), literacy (24 percent women, 54 percent men) and low levels of income and cultural taboos, particularly amongst remote communities, promote the reluctance to behavioral changes conducive to good health. Although often used to support vertical programs (most recently Ebola response efforts), community health workers are insufficiently used as agents of wider, horizontal health promotion for the poor. Another problem is the long distances to functioning health facilities, and lack of transportation that often limit access to services. In total, already prior to the Ebola epidemic, seven percent of health centers and nine percent of health posts across the country were non-operational: all of them outside of Conakry. Today this number is likely to be much bigger. Private sector facilities (309 medical facilities and 274 pharmacies) are predominantly located in urban areas and cater to the demands of the urban rich. Despite the heavy reliance on user fees and cost recovery, little support is provided to cover or subsidize care for the poor. In the absence of universal insurance coverage, few exemption schemes are available for the poor to cover them for critical maternal and child health services. Although several communities are relying on Community Based Health Insurance Scheme to cover them, these schemes are often underfunded or non-functional and their annual premium remains unaffordable to the poorest of the poor.

17. The proposed project intends to address the supply and demand side bottlenecks to utilization of MCHN services, and provide support towards a transition from Ebola response to Ebola recovery. Guinea was just emerging from a period of macroeconomic and fiscal instability prior to Ebola, with a renewed focus on poverty reduction. Guinea's Poverty Reduction Strategy Paper adopted in 2013, as well as its new draft national health strategy, [8] both prioritize improvements in service delivery, in particular primary based health service delivery, to the poorest people, especially in maternal and child healthcare. Ebola has set Guinea back on all fronts, left large segments of the population even more vulnerable than before, and made primary level service delivery strengthening, as identified in the Poverty Reduction Strategy Paper (PRSP) and strategic document, ever more important. With the expectation that Ebola cases will have further declined at the time of project effectiveness (September 2015), the project will provide urgent support towards strengthening the delivery and utilization of maternal and child health services in the poorest regions in Guinea, whilst simultaneously informing broader health systems and service delivery reform strategies. Whilst project support is limited to two target regions only, the cost

[8] The government has not yet finalized the new and updated national health strategy, only an initial draft exists at this stage. The last Strategy was the *Plan Du Development Sanitaire- 2005-2014*.

effective and high impact interventions and analyses supported under this project will provide new data and information to guide the government towards broader, longer term service delivery and health systems strengthening strategies at the primary level, particularly in the area of human resources for health, pharmaceuticals and supplies, and health financing.

D. Higher Level Objectives to which the Project Contributes

18. The proposed project is consistent with, and aligned to, the strategic area of the World Bank Group's Country Partnership Strategy (FY14-FY17), which focuses on improving human development indicators in Guinea, and which also covers basic education, social protection and health. The proposed project would support the CPS health targets of strengthening the capacity of the health sector to provide services and quality care accessible to the entire population to reduce infant and maternal mortality, malnutrition, including intensifying the fight against communicable and non-communicable diseases. The proposed project is also fully aligned with the the government's post –Ebola Health System Strategy and Plan, and will ultimately contribute towards the twin goals of the World Bank Group to 1) end extreme poverty and 2) promote shared prosperity of the bottom 40 percent. This will be done by specifically targeting the interventions at the poor and vulnerable, as well as acting as a catalyst to leverage additional funding and promote future scale up of the proposed service delivery model supported under the project.

I. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

19. The development objective of the proposed project is to **improve the utilization of maternal, child health and nutrition services at the primary level of care in Target Regions**. The project target regions are two of the poorest in Guinea, Faranah and Labe, which were selected based on a number of criteria detailed in section A of Annex 2.

B. Project Beneficiaries

20. The immediate project beneficiaries are women and children dependent on primary health services for their needs, in particular pregnant women and children under five. Faranah and Labe are home to around 1.9 million people, which account for approximately one fifth of the total population. Of those 997,769 (52 percent) are female, 498,885 (26 percent) are of child rearing age, 95,939 (five percent) are pregnant women, and 383,757 (20 percent) are children under five.

C. PDO Level Results Indicators

21. The following outcome indicators will be used to measure the achievement of the PDOs in the targeted regions/districts (refer to Results Framework Annex for definitions).

- Number of deliveries assisted by trained health personnel[9]
- Percentage of children (0-11months) fully vaccinated
- Percentage of pregnant women receiving at least 4 antenatal care visits from health provider

[9] refers to a minimum level of nursing assistants (ATS) with enhanced competencies

- Number of children under 5 with confirmed malaria who received antimalarial treatment
- Percentage of Children (0-1 years) receiving Vitamin A supplementation every 6 months
- Cumulative number of direct project beneficiaries, of which (percentage) female

II. PROJECT DESCRIPTION

22. The project will help the government improve utilization of primary health care services by strengthening the supply, demand, and management capacity for maternal and child health services delivered at health post and health centers to meet immediate needs of mothers and children. At the same time, the project will lay the foundation for more comprehensive health system reform in the medium to long run by supporting evidence generation to inform more wide ranging health systems strengthening.

23. Whilst the project will focus on the community and health center level in the two target regions, it will complement the plans of other Development Partners to provide support towards the District and Regional Hospital level, and other regions, in Guinea (see section on "role of partners" in Annex A).

A. Project Components

24. To achieve its project objective, proposed interventions are organized around three complementary components:

Component 1: Commodities and trained human resources for MCHN services at primary level (US$6.0 million)

25. Funding under the component will focus on (1) improving the availability of MNCH commodities and supplies required to implement neglected maternal and child health programs of the Ministry (sub-component 1.1), and (2) enhancing the numbers and competencies of health workers that are available for service delivery in rural areas (sub-component 1.2). Annex 2 provides more detail on each sub-component.

26. ***Sub-component 1.1*: *Strengthen the availability of maternal and child health commodities and supplies at primary health level (US$2.0 million)*.** Already before Ebola, stock outs of essential medicines were a major constraint to service delivery, particularly at smaller facilities. With the Ebola crisis, health facilities are experiencing shortages as never before, as most donor as well as government funding is used for Ebola services, demand for services is low because of lack of trust, and income generating opportunity to replenish stock is affected accordingly. The sub-component will aim at improving the availability of medicines, essential supplies and equipment to support maternal and child health at the health post and health center level. Support will be provided to (i) initially replenish the stocks of medicines and supplies for health facilities in the targeted areas, (ii) restore a functional revolving drug fund within the health facilities, (iii) cover any financial gap to procure medicines in subsequent years, (iv) support the training of facility managers in drug management. The sub-component will fund and rely mainly on the

national central medical store for procurement and distribution of essential generic medicines (and the provision of basic facility training on drug management to health facilities) and on development partners (MSH, Global Fund, UNICEF, UNFPA) which will provide key commodities and supplies for immunization, family planning, treatment of malaria. The sub-component will draw on a mix of cost-consciousness, agility and smart investments to achieve the expected outcome.

27. ***Sub-component 1.2*: *Expand the number and competencies of health workers to deliver enhanced, high impact maternal and child health services at the primary level (US$4.0 million).*** Whereas nurses, midwives and doctors largely staff higher level facilities in urban areas, the rural poor mainly rely on nursing assistants (agent technique de santé - ATS) to deliver maternal and child services. ATSs are trained (over a period of three years) in primary health care provision in decentralized community schools (including one in Faranah and one in Labe), for specific deployment at the community and primary level (not the case with nurses and midwives). Ebola has reduced the number working on MCHN however, and those that remain and any new recruits could benefit from continuous training and supervision to maximize their service delivery potential (particularly in maternal health – insufficiently addressed in their pre-service education). Whilst long term strategies should address the need to deploy more nurses and midwives to the health center level (which will require comprehensive training, fiscal and management reform), investments under this sub-component will address immediate need for HRH in target areas, mainly by (a) Recruiting unemployed ATSs for deployment at the health center and health post level (- as consultants, with the expectation that they will be full absorbed by the government and into the civil service upon project end) , (b) providing training and continuous mentoring to ATSs and other health workers that are present, by means of a district level training model (See Annex for detailed description).

Component 2: Strengthen community-level demand for MCHN services (US$4.0 million)

28. The PER (2014) identified that aside from critical supply side constraints, utilization of MCHN services is also affected by demand side constraints, partly because of the inability of the poor to pay for services and insufficient knowledge on prevention and care seeking by the poor. This component seeks to build on the government's efforts to (1) exempt indigent populations from costs they cannot afford for health care), and (2) engage community health workers in generating demand and service delivery uptake on maternal and child health.

29. ***Sub-Component 2.1: Strengthen financial access to essential health services for indigent populations (US$2.0 million).*** The project will introduce mechanisms to improve financial access to essential health services at the community and health facility level among poor and vulnerable households (the poorest 10% of pregnant women and children in the target regions). The mechanism that will be used to identify the poor will follow a rigorous and verifiable approach which will cover health care for indigents provided at health facility levels. The project will introduce fee-waivers for certain essential services for the systematically identified vulnerable households. In order to fill the financial gap caused by this loss in facility revenue through the absence of direct payments, facilities will be reimbursed for services provided free to the indigent. The support provided under this project will focus on the selection and verification of indigents, the provision of free health services, and reimbursement to health facilities.

30. ***Sub-Component 2.2: Institutionalize the training and deployment of community health workers to generate demand and deliver basic services in maternal and child health (US$2.0 million).*** This would involve the engagement of community health workers, including those mobilized during the Ebola response effort, in demand generation activities alongside basic service delivery functions[10]. The project would support the development and institutionalization of standardized maternal and child health training programs for community health workers, building capacity of the District Health Team to deliver new short programs for community health workers as guided by WHO standards on task shifting. This would allow Guinea to move away from the sporadic, non-standardized and vertical training programs currently provided by different NGOs, and institutionalize the horizontal training of community lay workers in MCHN promotion and basic service delivery at the community level. The component will fund costs linked to the training of CHWs, and for their recruitment and supervision.

Component 3: Strengthen government capacity to plan, implement, monitor and supervise activities (US$5.0 million)

31. This component would ensure that the above inputs translate into actual services delivered, largely by (1) strengthening supportive supervision at district level and below, (2) supporting evidence generation to inform post Ebola health systems strengthening, and (3) strengthening capacity for project management and implementation. All interventions will ensure that inputs and concepts are adequately translated into services.

32. ***Sub-Component 3.1: Strengthen capacity to carry out district level supportive supervision of health centers and posts and in target regions (US$1.5 million).*** Support will be provided to District Health Directorates to strengthen their supportive supervision and monitoring of health centers and health posts (within their broader mandate of responsibility[11]). Supervision visits to the health facilities within the project target districts will be incentivized and performed by the District Health Directorates to improve the performance of personnel in the health centers, and quality of services, under their authority. The districts will rely on supportive supervision methods including the use quality checklists for supervision and mentorship. Funding will include development of the supportive supervision strategies, training of district health teams, and key costs linked to carrying out the supervision. District Health Teams will also be provided all-terrain vehicles to carry out their supervision, although these will be allocated largely from those provided during the Ebola response.

33. ***Sub-Component 3.2: Support evidence generation to inform post Ebola health systems strengthening (US$1.0 million).*** This sub-component will support Guinea's efforts to better plan health systems strengthening activities in the medium to longer term by providing technical assistance to carry out a Results Based Financing experiment in one district (See Annex 2, Box 6 for details) and provide funding for other evidence-based analytical studies in health and

[10] Paid during the Ebola response phase, ignoring community health workers post Ebola is likely to significantly demotivate them, with demands for integration and pay, disrupting existing community level services, and further eroding trust in the health system. Global evidence suggests that they can play a significant role in reducing key maternal and child health deaths if adequately trained, supervised and integrated into the health system (WHO, 2014).

[11] The MOH's Institutional and Organizational framework specifies the responsibilities of different actors within the health system in the context of decentralization.

nutrition, including health financing, planning and budgeting, human resources for health, and drugs and medical supplies. The overall focus of these studies will be to determine the status of the health system in light of the Ebola crisis, and produce evidence to inform the development of policies, medium and long term strategic plans, and annual plans and budgets.

34. ***Sub-Component 3.3: Strengthen the capacity of the government to supervise, plan, implement and monitor activities at district level and below (US$2.5 million)***. This sub-component seeks to strengthen project implementation capacity of MoH at all levels, to address technical gaps and building capacity for the development of the various interventions proposed, the day-to-day administration of project activities (monitoring resource use, procurement processing activities, administering withdrawal and disbursement procedures, consolidating the financial management aspects of project implementation, project reporting; as well as coordinating all relevant sector ministries, Government departments, health professional training institutions and associations, civil society organizations and the private sector); and (ii) strengthening the M&E/HMIS capacity and functioning to obtain quality primary level MCHN information at district/regional level in the two target regions, as well as at central level. Specifically, funding will be used towards recruiting personnel to staff the Project Coordination Unit (PCU) to carry out these functions, and to support their incremental operating costs.

B. Project Financing

35. Based on the latest reconciliation of FY15 IDA flows, the proposed project will be a mixed instrument – composed of US$6.8 million in grant funding and US$8.3 million in credit funding, amounting to a total of US$15.1 million. US$ 100,000 will remain unallocated (hence not budgeted against specific components), and can be used as a contingency fund towards any component as needed. The project will be implemented over a five year period (September 2015 – September, 2020).

C. Project Cost and Financing

36. The Table 7 below presents a summary of the project costs per component.

Table 7: Project costs and financing by component in US$ million

Project Components	Project cost	IDA Financing	% Financing
1. Commodities and trained human resources for MCHN services at primary level	**6.0**	**6.0**	100
1.2. Strengthen availability of MCHN commodities and supplies	2.0	2.0	100
1.2. Strengthen number and competencies of trained HRH	4.0	4.0	100
2. Strengthen community level demand for MCHN services	**4.0**	**4.0**	**100**
2.1 Financial coverage for indigent poor	2.0	2.0	100
2.2. Institutionalize the training and deployment of CHWs	2.0	2.0	100
3. Strengthen capacity to plan, implement, monitor and supervise activities	**5.0**	**5.0**	100
3.1 Strengthen supportive supervision capacity	1.5	1.5	100
3.2 Support evidence generation for post Ebola systems strengthening	1.0	1.0	100
3.3 Strengthen Project management and Implementation capacity	2.5	2.5	100
Total Project Costs	**15.0**	**15.0**	100

D. Lessons Learned and Reflected in the Project Design

37. The HIV and AIDS epidemic has taught us valuable lessons in terms of how it has negatively impacted health systems and the types of responses needed. As during the HIV/AIDS crisis, Ebola has left the health system reeling. The HIV/AIDS crisis has taught us to focus on critical demand and supply generating activities, targeting in particular communities and those most in need, to kick-start life-saving services, and to focus on generating renewed trust in the public health system.

38. The use of auxiliary level cadres as change agents, and for the delivery of maternal and child health services at the lower level of the health system, is commonly promoted in Human Resources for Health (HRH) literature. In the absence of higher level cadres in remote areas, a common solution is to "task shift" key competencies to lower level cadres who are often present in these areas. Key additional lessons that have been incorporated into the design of the HRH intervention include (a) focus on cadres that have been trained at decentralized level, (b) focus on a training program that emphasizes practical and applied training over theory, (c) a focus on strong supervision and accountability arrangements, (d) continuous mentoring and training once in the field (WHO, 2014), and (e) availability of adequate equipment and supplies to ensure quality service delivery. Component 1.1 and 1.2 take this into account.

39. The proposed use of Community Health Workers (CHW) at the village level for the delivery of services and commodities distribution is also based on global evidence. A global review of Global CHW programs (2012)[12] noted that services offered by CHWs have contributed to the decline of maternal and child mortality rates and assisted in decreasing the burden and costs of Tuberculosis (TB) and malaria. The requirements for successful CHW utilization, which will be incorporated into the design, include a careful selection of the agent and realistic and appropriate levels of expected services, taking into account cultural context; high quality training, regular remuneration, adequate supervision, and a reliable supply chain[13]. Component 2.2 takes this into account.

40. The global literature[14],[15] on supportive supervision is clear on the premise that if carried out properly, supportive supervision can lead to: higher health worker motivation; increased and sustained job satisfaction; increased health worker retention[16]; improved service quality, as staff learn and improve skills on-the-job; efficient use of resources, as staff are supported to prioritize activities and allocate resources accordingly; enhanced equity in access to services, as staff are reminded of the health needs of the population and encouraged to work towards meeting these needs. As such supportive supervision complements the supply and demand side interventions

[12] (Zulfiqar A. Bhutta, Zohra S. Lassi, George Pariyo* and Luis Huicho (2012) Global Experience of Community Health Workers for Delivery of Health Related Millennium Development Goals: a Systematic Review, Country Case studies, and Recommendations for Scaling Up: A systematic Review, Country Case Studies, and Recommendations for Integration into National Health Systems. GHWA/WHO Publication.
[13] WHO (2007) *Community Health Workers: What do we know about them? The state of evidence on programs, activities, costs and impact on health outcomes of using community health workers*, WHO 2007. Geneva,Switzerland.
[14] Guidelines for Implementing Supportive Supervision: A step-by-step guide with tools to support immunization. Seattle: PATH (2003).
[15] C. John Clements*,1, Pieter H. Streefland2 and Clement Malau1 Supervision in Primary Health Care – Can it be Carried Out Effectively in Developing Countries? http://www.benthamscience.com/cds/samples/cds2-1/0004CDS.pdf
[16] Studies have shown a clear relationship between job satisfaction and retention (Lu et al., 2005).

supported under component 1 and 2, respectively, and is an integral aspect of strengthening service delivery and ultimately utilization of services in the project target areas.

41. The Implementation Completion Report (ICR) of the previous "Health Sector Support" Project" (P065126) in Guinea which closed on December 31, 2013, highlighted that investments in human resources (particularly their contracting) for health and strengthening management arrangements had the most significant impact on improving health outcomes. The key lessons of the ICR can be summarized as the following: (a) keeping the design of the project simple; (b) not underestimating risks; (c) identifying and relying on key champions to implement the project where ministry leadership may be inadequate; (d) relying on the Bank's comparative advantages in the design of a project including in the areas of Human Resources for Health (HRH), strengthening decentralization arrangements and health financing schemes including community health insurance; and (e) working towards identifying suitable new business models, including identifying, leveraging and targeting the use of scarce resources as best as possible towards results. The overall design of the project takes these lessons into account.

III. IMPLEMENTATION

A. Institutional and Implementation Arrangements

42. The proposed institutional and implementation arrangements draw on the implementation experience from the past project. Generally, the experience has been that the capacity to manage and coordinate the project will have to be created from scratch (including for Procurement and Financial Management (FM)) – by hiring relevant technical and fiduciary consultants to function within a Project Coordination Unit (PCU).

43. The PCU will be comprised of a technical unit and fiduciary unit, and will be headed by a full time project coordinator and relevant technical staff. The PCU will be the responsibility of the day to day management of the project. The PCU will report directly to the Secretary General, and coordinate the project activities; (ii) carry out financial management for project activities under the 3 components; (iii) prepare consolidated annual work plans, budgets, M&E report, and the project execution report for submission to the Steering Committee and the Association (IDA).

44. In addition, a Steering Committee, will provide strategic direction and monitor the overall progress of the project. It will approve the annual work plans, as well as the annual and quarterly reports. It will be chaired by the Secretary General of the MoH and composed of MoH Department Directors, UNICEF, UNFPA, and WHO. Each directorate in the Ministry of health will play its administrative role regarding the project.

45. By extension to the PCU, the national central medical store, the *Pharmacie Centrale de Guinée* (PCG), will carry out key procurement and distribution functions related to key pharmaceuticals and commodities funded under component. The PCG is currently benefitting from technical support from the European Union and MSH/SIAPS until end of 2016, and according to the Model Quality Assurance System (MQAS) established and recently revised by WHO and partners.

B. Results Monitoring and Evaluation

46. A comprehensive description of the Project's results framework and the arrangements for monitoring and evaluation (M&E) are described in Annexes 1 (Results Framework and Monitoring) and 3 (Implementation Arrangements), respectively. A decision was reached with the government that the pre-Ebola 2012 baseline data (the most recent data available) would not be used to guide progress on targets in the results framework (for the PDO indicators as well as the one IOI indicator on stock outs). In addition to reflecting a pre-Ebola context, the 2012 data likely reflected support provided by other donors at the time, thus making it highly unreliable to use as the baseline. Rather than risk an early restructuring, it was decided to leave these indicator fields blank, and collect new baseline data in the first quarter of project implementation (coordinated by the M&E specialist hired into the PCU)[17].

47. The results framework will be tracked and a mid-term review will provide the opportunity to assess progress and make appropriate mid-course corrections. The PCU will be responsible for monitoring the agreed PDO indicators, and a set of intermediate outcome indicators, during the life of the Project.

48. The National Health Management Information System (HMIS) will be primarily used to collect monitoring data, with additional support provided by the Project to integrate primary level information. The M&E Consultant in the PCU (hired specifically under this project) will work with his counterparts to strengthen and secure the collection of required data at all levels. He will also carry out an assessment of all baseline indicators of the results framework in the first quarter of the project, to understand and better capture the post-Ebola situation and review the targets and M&E capacity accordingly. The current baseline data and targets are based on 2012 data and considered unreliable.

49. The project will verify that the poorest 10 percent of pregnant mothers and children under five in the two target regions, will ultimately be reached under component 2.1, actually receive fee exemption, rather than other populations. Verification of indigents exempted will be carried out as part of the quality checklist supervision visits, combined with independent spot checks, by the District Health Team. The survey on satisfaction of indigents with the exemption mechanisms (tracked by an indicator), coordinated and organized by the M&E specialist in the PCU, will provide additional information.

C. Sustainability

50. Sustainability of any project intervention in Guinea is a significant risk (and highlighted as such in the risk section) and will require a significant shift in commitment towards the health sector of the government. The health system in Guinea is marred by serious weaknesses, in large part brought about by the historic under financing of the health sector, since weakened further with Ebola. To ensure the sustainability and scale up of the project interventions, government commitment to increase overall fiscal space to the health sector, streamline and strengthen

[17] The ability not to have baseline data prior to board approval is allowed under exceptional circumstances as detailed in the 2014 OPSPQ "Investment Project Financing Projects in Situations of Urgent Need or Capacity Constraints Guidance Note" (page 7, paragraph 22), and the 2014 OPSPQ " Results Framework and M&E guidance note" (page 10, paragraph 39 footnote).

management and administration (in particular on HRH), and better target the periphery and the poor, will be critical. The Macro Fiscal Management (MFM) team and the CMU will need to lead policy discussions covering these aspects.

51. Within this constraint, the project design aims to ensure sustainability as much as possible. The proposed interventions are deeply embedded into existing public sector service provision structures. Moreover, they are closely linked to the activities outlined in the new draft national health policy, and also reflect the wider Global discussions on interventions to be prioritized in a post Ebola setting. This maximizes the potential for complementary and subsequent government and partner funding to become available to sustain the interventions.

52. The consideration to strengthen and focus on ATS to deliver key maternal and child health interventions, and supervise community health workers below them, was also largely driven by sustainability arguments. ATS are specifically trained for service delivery at the primary and community level. They are cheaper and more likely to be retained and absorbed at that level than midwives or nurses, who are currently trained in urban settings, more expensive to employ, and unlikely to remain in rural areas.

53. All in all, this project is one initial contribution to provide support beyond Ebola. It is not expected to bring the system to full sustainability, but will serve to meet the immediate health service needs of populations in two of the poorest regions in Guinea, while developing some of the knowledge and foundations that can be allied in future health systems reform.

IV. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risk

54. **Overall project risk is rated as "*substantial*"**, as summarized in Table 8 below: (i) with regards to political and governance risks, Guinea still suffers from limited transparency and accountability; weak health budget, procurement, and financial management processes; (ii) macro-economic risks are high, with the risk of emerging or continuing external and/or domestic imbalances a real possibility; (iii) there is also a substantial risk of adverse impact on the PDO stemming from inadequate sector strategies and policies, which remain unclear and lack formal endorsement; (iv) although the technical design of the project has been kept moderately complex given the capacity constraints and have taken into account capacities built and lessons learned under the previous project, the capacity constrains brought about from Ebola, and the bottlenecks inherent in the health system could constrain the effective delivery of services; (v) there is a substantial likelihood that weak institutional capacity for implementing and sustaining the operation or operational engagement may adversely impact the PDO. Capacity of the Ministry is perceived to be weak, particularly at district and regional levels due to a system that remains very centralized (capacity wise), top heavy and bureaucratic, and sustainability is a real risk given the historical lack of public spending on health (see detailed discussion on that below); (vi) environmental and social risks are low, the project will not trigger OP (category B) 4.01 Environmental Assessment; and (vii) stakeholder risks are also low given that there is strong support from partners.

55. One significant other risk to the PDO stems from the effects of Ebola: The current effort to contain Ebola is stretching government and donor capacity to a maximum, creating a risk to the implementation of the project. The risk of Ebola not contained during project effectiveness can constrain implementation and supervision because technical teams will be less willing to visit the more remote and affected parts of Guinea where this project is being implemented. Under such a scenario moreover, it is unlikely that the government will be prepared to fully commit their time to work on the project if they remain engaged in the Ebola response effort. The priority of the government health team is first and foremost Ebola.

Table 8: Overview of Risk Ratings

Risk Category	**Rating**
1. Political and Governance	**Substantial**
2. Macroeconomic	**High**
3. Sector Strategies and Policies	**Substantial**
4. Technical Design of Project or Program	**Substantial**
5. Institutional Capacity for Implementation and Sustainability	**Substantial**
6. Fiduciary	**Substantial**
7. Environment and Social	**Low**
8. Stakeholders	**Low**
9. Other: EBOLA	**High**
OVERALL	**Substantial**

V. APPRAISAL SUMMARY

A. Economic and Financial Analysis

56. The expected economic benefits of investing into the health sector in Guinea are noticeably large. The Ebola crisis has occurred exactly because of the weak health system, disrupting livelihoods and businesses and resulting in lower-than-projected macro-level economic performance: from 4.5 percent to 0.4 percent of GDP in 2014. Investments into the health sector are thus absolutely critical in order to reestablish trust in the economy and guide Guinea towards recovery.

57. The benefits of investing in maternal and child health care vis-a-vis other services in Guinea are particularly large. These outcomes are usually linked to incapacity of the health system to deliver basic interventions such as pre-natal visits, assisted deliveries, vaccination and insecticide treated bed nets (ITN) and nutrition services. Most of the determinants moreover that affect maternal and child health complications can be addressed at community and primary level, at considerably lower cost than at the secondary or tertiary level.

58. Since the project aims to improve the utilization of maternal, child health and nutrition services at community level in target districts, it is expected that there will be impacts on health outcomes for women and children in the targeted districts. Therefore, the impact of the project can be modeled as a series of interventions that affect the following health indicators applicable to the beneficiaries of the project: infant mortality rate and maternal mortality rate.

59. As detailed in Annex 5, the discounted total benefits of the project, estimated in productive life years gained, is US$45.41 million. The net present value of the project costs, assuming a constant rate of disbursement, is estimated as US$14.15 million. This results in a benefit-cost ratio equal to US$3.21, i.e. for each US$1 invested through the project there will be an expected return of US$3.21. Although significantly high, this result is based on conservative assumptions adopted and likely underestimates the total project benefits. For example, health care costs (for health systems and households) saved due to reduced morbidity and mortality are not take into account, efficiency gains are not included, and the effect of project interventions on health outcomes are considered low (from one percent to 2.5 percent reduction in mortality rates).

B. Technical

60. The demand and supply side, and management strengthening approaches proposed in this project are well known and tested in a number of countries around the world, including many in Africa. In addition to reflecting the priority needs identified in the national health plan, the proposed interventions closely reflect international consensus on priority needs in post Ebola contexts more generally. The immediate focus on rebuilding maternal and child health and nutrition services at the lowest level of the health system, followed by the mid-term need to ensure functioning services at higher levels of the health system, and longer term need for health systems strengthening more generally, has been widely discussed and acknowledged. The project will support a significant amount of technical assistance to bring international lessons to Guinea and increase the capacity and knowledge of local counterparts in international best practices.

C. Financial Management

61. A Financial Management (FM) assessment was conducted at the MoH, the implementing entity of the Project to ensure it has acceptable financial management arrangements in place to handle the Project activities that satisfy the Bank's Operation Policy/Bank Procedure (OP/BP) 10.00. The day to day management of the Project including financial management will be the responsibility of a Project Coordination Unit reporting directly to the Secretary General of the MoH.

62. The MoH has experience with World Bank-funded operations. The assessment revealed that the experience gained within the Ministry in managing previous World Bank-financed projects has not been maintained with regards especially to financial management. In fact, the last project closed in 2013 and was implemented through an implementation unit and the financial management activities were carried out by a fiduciary agent. As a result, at the Project closing, no FM capacity was left in the Ministry to properly handle the Project with regard to staffing, accounting, reporting and control and the ongoing Emergency Ebola Response Project (EERP) is being implemented by a Project coordination Unit in which fiduciary capacity is being built. Therefore**,** with regards to the country's weak PFM system in general and in particular in the Health sector as substantiated by the recent PER, financial management is subject to significant risk and the project will not be implemented using national systems. Furthermore the MoH will take the following additional measures set as dated covenants (in application of OP BP 10 para 12) to build up the PCU FM capacity:

- a Financial Management Officer and an accountant will be competitively recruited,
- a manual of procedures for the project will be elaborated and will include procurement, financial management and disbursement arrangements; institutional administration, coordination and day-to-day execution of Project activities; monitoring and evaluation, reporting, communication arrangements of Project activities;
- an accounting software will be set up including provision of necessary trainings to the FM team.

Box 1. Application of OP/BP 10, Paragraph 12

With regards to the application of OP/BP 10, paragraph 12, the MoH shall rely on the FM team of the EERP Coordination Unit during the first two months of effectiveness or more if needed to take care of the recruitment process and Financial and accounting management of the Project until the Project team is in place. Therefore, MoH will enter into a MoU with the EERP Coordination team. The FM performance of the EERP is currently rated moderately satisfactory and would improve following complete set up of FM arrangements (manual, accountant, software) currently at a satisfactory stage. The Coordination team will then be able to handle the Project activities.

Governance measures

63. Some systemic inefficiencies regarding service delivery are acknowledged as being issues in the Health sector in Guinea due among other to inherent poor governance practices and weak PFM environment as substantiated by the last PER. This is accentuated by the specific large number of involved entities, the lack of trust of the community to the public health system, following neglect, dilapidation, Ebola risk and the need to build on accurate data. In addition to training and information of the communities, the following measures will be considered to contribute to mitigate the related risks.

64. Monitoring: the National Health Management Information System (HMIS) will be primarily used to collect monitoring data, with additional support provided by the PCU M&E A specialist will work with counterparts at the central, regional, and district levels to strengthen the M&E system for accurate and timely data provision to the MoH for analysis and decision making especially regarding the selection of districts and beneficiaries to ensure support is provided to the right beneficiaries.

65. Internal control: Building on the ongoing support of the Bank to internal audit bodies with regards to risk based internal audit approach, an internal audit function will be set up and be coordinated by the *Cadre Permanent de Concertation des Corps de Contrôle*, CP3C. Internal audit activities of the Project would be carried out by a team comprising mainly of IGF and technical auditors of the MoH. Therefore a formal agreement will be reached.

66. Taking into account the support that will be provided to the MoH by the EERP coordination team, the overall risk for the project for which the implementing unit is being set up along with the internal control system is rated as Substantial (S). The assessment has concluded that the financial management arrangements for the project will satisfy the Bank's minimum requirements under OP/BP10.00 once the proposed mitigation measures are implemented. The

implementing entity will ensure that the Bank's Guidelines: Preventing and Combating Fraud and Corruption in Projects financed by IBRD Loans and IDA Credits and Grants (revised January 2011) are followed under the project. Details on the financial management and disbursement arrangements for this project are included under Annex 3.

D. Procurement

67. Procurement for the proposed project will be carried out in accordance with the World Bank's "Guidelines: Procurement of Goods, Works and Non-consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011 (revised July 2014); and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011 (revised July 2014), and the provisions stipulated in the legal agreement.

68. The project will be under the Ministry of Health (MOH) which has a long track record in implementing Bank-financed projects, with the most recent project closing in 2013. The proposed institutional and implementation arrangements draw on the implementation experience from the past project. The day-to-day management of the project will be the responsibility of a Project Coordinating Unit (PCU), hired newly under the project, which will include a fiduciary unit that will report directly to the Secretary General of the MOH.

69. Bank conducted an assessment of the procurement capacity of the Ministry of Health (MoH) on February 2015 in accordance with Bank's procurement Risk Assessment and Management System. The objective of the assessment was to determine whether the MoH and the implementing agency have acceptable procurement capacity and arrangements in place that satisfy the Bank's Operation Policy and Procurement Procedures. The assessment reviewed the organizational structure for implementing the project taking into account the interaction between staff responsible for procurement and other relevant technical units of the entities that will be involved of project activities. The assessment identified that the Ministry of Health has a long experience in the implementation of projects financed by IDA, the last of which closed in December 2013. However, the implementation Unit that managed the last project funded by IDA is no longer in place. It is planned to create a new coordination unit for the management of this project. It has identified a number of critical areas which have potential risk.

70. The potential risks identified are: (i) a large number of actors; (ii) the need to put in place a new coordination Unit which comprises one Procurement officer who is familiar with Bank procurement procedures; (iii) the need to elaborate an implementation manual which includes the procurement procedures for the project.

71. Based on the assessment of the system in place, the Overall project risk for procurement is rated High. It may be lowered to Substantial once the mitigations measures are implemented. Detailed procurement risk mitigation measures are presented in Annex 3 of the PAD.

E. Social (including Safeguards)

72. The project will not finance any activities necessitating involuntary land acquisition resulting in (i) involuntary resettlement of people and/or loss of (or access to) assets, means of livelihoods

or resources and (ii) the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.

73. The project is expected to have a positive social impact on improving utilization of health care services by the poorest households. The project will also have a positive impact on gender in Guinea. In terms of ensuring community engagement and buy-in for the activities, the project will put emphasis on the importance of training and engaging community lay workers around community needs and concerns. The community will benefit from the extension of services delivered to them through the community lay workers, and from activities that will rebuild the trust of the community into the public health system, following neglect and further dilapidation since Ebola.

F. Environment (including Safeguards)

74. The project will mostly fund consulting, communication costs, training services, as well as fund drugs, medical supplies, and some equipment. The project will not support any investment (including civil works) that is likely to harm the environment. However, since the project activities are expected to increase the use of health services, as a result, the project is likely to increase the generation of biomedical waste. Consequently the project is classified as category B.

75. Apart from the National Medical Waste Management Plan (NSMWP), which is currently being reviewed and updated, and which will serve to prevent the project environmental and social risks, no other specific instrument is required. The Plan will be approved on, then disclosed both in-country and the Bank InfoShop not later than a month after the Board approval, because the project is being processed under the provisions of OP 10.00 paragraphs 11 and 12 a.

G. Other Safeguards Policies Triggered

Not Applicable.

H. World Bank Grievance Redress

76. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org

Annex 1: Results Framework and Monitoring

GUINEA: PRIMARY HEALTH SERVICES IMPROVEMENT PROJECT (P147758)

Table 1.1: Results Framework

Project Development Objectives

PDO Statement: **Improve the utilization of maternal, child health and nutrition services at the primary level of care in target regions**

These results are at	Project Level

Project Development Objective Indicators

Indicator Name	Core	Unit of Measure	Baseline*	Cumulative Target Values[18]					Frequency	Data Source/ Methodology	Responsibility for Data Collection
				YR1	YR2	YR3	YR4	YR5			
1. Number of deliveries assisted by a trained health personnel	☒	number	tbd						Annual	HMIS	MOH
2. Percentage of children 0-11momths fully vaccinated	☐	%	tbd						Annual	HMIS	MOH
3. Percentage of pregnant women receiving at least 4 antenatal care visits from health provider	☐	%	tbd						Annual	HMIS	MOH
4. Number of children under 5 with confirmed malaria who received antimalarial treatment	☐	number	tbd						Annual	HMIS	MOH
5.Percentage of Children (0-1) receiving Vitamin A supplementation every 6 months	☐	%	tbd						Annual	HMIS	MOH
6. Cumulative number of direct project beneficiaries, of which (percentage) female	☒	Number, %	0	0	400,456 (75%)	500,000(75%)	700,000(75%)	930,456 (75%)	Annual	MOH	MOH,

* As agreed with partners and the government, the project will identify the baselines (and targets) in the first quarter of the first year of implementation to capture the post-Ebola reality (using the M&E Specialist who will be hired under the project). The most recent baselines are from 2012 (pre-Ebola) and are no longer deemed accurate. In addition, 2012 baselines reflect the support provided by various donors at the time, and are thus skewed the actual situation. The ability not to have baseline data prior to board approval is allowed under exceptional circumstances as detailed in the 2014 OPSPQ "Investment Project Financing Projects in Situations of Urgent Need or Capacity Constraints Guidance Note" (page 7, paragraph 22), and the 2014 OPSPQ " Results Framework and M&E guidance note" (page 10, paragraph 39 footnote).

Intermediate Outcome Indicators				Target Values					Data Collection and Reporting		
Indicator Name (by component)		Unit of Measure	Baseline	2016	2017	2018	2019	2020	Frequency	Data Collection Instruments	Responsibility for Data Collection
Improve availability of commodities and Human resources	Percentage stock outs of tracer drugs* in health centers	%	Tbd*						Annual	Supervision Checklist	MOH
	Number of new health workers recruited and in service at health centers and posts	number (cumulative)	0	0	150	300	450	450	Annual	HMIS	MOH
	Number of Health Worker trained	Number	0	0	150	300	450	450	Annual	Routine training reports	MOH
	Health Centers offering Integrated Management of Childhood illnesses (percent)	Percent (cumulative)	0	0	20	40	60	80	Annual	Supervision Checklists	MOH
Improve the Demand for MCHN services	Number of new indigents covered under exemption mechanisms	Number (cumulative)	0	0	5,000	20,000	30,000	50,000	Annual	Community selection committee enrolment register, survey	MOH
	Percentage of indigents satisfied with exemption mechanisms	Percent	0	0	40	50	60	70	Annual	Survey	MOH
	Number of newly trained community health workers engaged in health promotion and basic service delivery	Number (cumulative)	0	0	100	300	530	530	Annual	Supervision Checklist	MOH
Strengthening supervision and management	Percent of health facilities and posts assessed monthly (by district team) meeting minimum checklist score	Percent	0	0	40	50	60	70	Annual	Supervision Checklist	MOH
	Percent of community workers and health workers at health center that receive monthly supportive supervision	Percent	0	0	40	50	60	70	Bi-Annual	Facility and district reports	MOH
	Standardized MNCH District training program developed and implemented (Y/N)	(Y/N)	none	N	Y	Y	Y	Y	Once	Program manual	MOH
	Work plan Budget execution rate	Percent	0	30	60	80	85	85	Annual	Annual Work Plans	MOH
	Health facilities reporting health management data on time	Percent	0	0	50	60	70	80	Quaterly	HMIS reports	MOH

****** The tracer drugs will include Oxytocin, Iron Folic Acid tablets, Fansider (for IPT), Vitamin A, Zinc, Oral Rehydration Salt, Pentavalent vaccine and Depo-Provera/Norplant

Table 1.2: Definition and Interpretation of PDO and Intermediate Indicators

Indicator Name	Description (Definition etc.)
PDO indicators	
1. Number of deliveries assisted by a trained health personnel	The number of women 15-49 years who had births attended by skilled health personnel in a health center or district hospital (doctors, nurses or midwives or trained ATS).
2. Percentage of children fully vaccinated 0-11momths	The numerator is the number of children under 1 year who have received full immunization according to national immunization policies for the age group. The denominator is the number of infants surviving to age one in the same area and time period. X100
3. Percentage of pregnant women receiving at least 4 Antenatal care visits from health provider	The numerator is the number of all pregnant women in the target regions who have received at least 4 antenatal care visits from a health provider during their pregnancy. The denominator is the number of pregnancies expected in women 15-49 in the same area and time period. X100
4. Number of children under 5 with confirmed malaria who received antimalarial treatment	Number of children under five years old who have had their malaria confirmed with a finger prick test, and who have received the standard recommended treatment package for malaria
5. Percentage of Children (0-1year) receiving Vitamin A supplementation every 6 months	Numerator: The number of children (0-1year) who received an age-appropriate dose of vitamin A in the 6 month reporting period. Denominator: Total number of children 0-1 years old in the same area and time period. X100
6. Cumulative number of direct project beneficiaries, of which (percentage) female	Direct beneficiaries are people or groups who directly derive benefits from an intervention. Supplemental value will be collected for the indicator: Female beneficiaries. The percentage will specify what percent of the beneficiaries are female.
Intermediate outcomes indicators	
Component 1	
Stock-out of tracer drugs at the health center level (Percent)	Numerator: Health facilities reporting stock-out of tracer medicines and medical supplies for the facility type at the time of the health facility quality of care assessment" Denominator: Total number of health facilities of the same type and reporting in the same time period. X100
Number of health workers recruited and in service at health centers (cumulative)	This is the total number of new health workers who are newly recruited and deployed at the health center level in project target regions.
Number of health workers trained	Numerator: The number of health workers at health center and health post level in target regions who have completed new training in MNCH (including from district level training program supported by project)
Health Centers offering Integrated Management of Childhood illnesses (percent)	Numerator: Number of Health Centers offering integrated Management of Childhood Illnesses in project areas. Denominator: Total number of Health Centers in project areas in the same time period. X100
Component 2	
Number of indigents covered under exemption schemes	The number of indigents newly covered by the exemption scheme annually and enrolled by Community selection committees. This number will be totaled annually across all exemption schemes supported by the project. Indigents will be identified using criteria described in the project annex.
Percent of indigents satisfied with exemption mechanisms	Numerator: The number of indigents enrolled to receive support under the project who report that they are satisfied with the exemption mechanism (as per a survey). Denominator: Number of indigents surveyed in the same area and time period. X100
Number of newly trained community health workers engaged in health promotion and basic service delivery	The number of community health workers who have completed their training modules and are confirmed to be working at the community level on MNCH services (as confirmed by the ATS at health center level)
Component 3	
Percentage of health facilities and posts assessed quarterly (by district team) meeting minimum checklist score	The numerator is the number of health facilitates in a district receiving a minimum checklist score on a quarterly assessment of MNCHN services they are required to provide as per the facility type. The denominator is the total number of operational facilities in the district in the same time period. X100
Percent of community workers and health workers at health center level that receive monthly supportive supervision	The numerator is the number of community health workers and ATS that received monthly supervision visits to observe their on the job performance. The denominator is the numeric of community workers and health workers in the same area and time period. X100
Standardized MNCH training program developed and implemented as envisaged (Y/N)	This is the finalized development of district level ATS and Community Health worker training strategy.
Work Plan execution Rate (percent)	The work plan execution rate at central/project level. The numerator is the number of budgeted work plan items expensed during the time period. The denominator is the total number of work items targeted in the same period. X100
Health Facilities reporting health management data on time (percent)	Numerator: Number of health facilities that send a complete quarterly report (to the districts) on time. Denominator: Total number of health facilitates expected to report in the time period. X100

Annex 2: Detailed Project Description

GUINEA: PRIMARY HEALTH SERVICES IMPROVEMENT PROJECT

1. The proposed project aims to "**Improve the utilization of maternal, child health and nutrition services at primary level in Target Regions".** The target regions are the two poorest regions in Guinea: Labe and Faranah, home to two million people (about 1/5th of the population of Guinea). Both regions cover a total of none out of 34 districts in Guinea: The Labe Region encompasses five districts (Mali, Koubia, Tougue, Lelouma, and Labe) and the Faranah region encompasses four districts (Faranah, Dinguiraye, Dabola, Kissidougou).

2. Within the target regions, the proposed Project seeks to strengthen maternal and child health service utilization at the primary level, by making available urgently needed medicines and health workers, generating demand and trust in the public health system, and strengthening overall resilience and capacity of the Guinean health system to help prevent any future epidemic outbreak.

3. The immediate project beneficiaries are women and children dependent on primary health services for their needs. Faranah and Labe are home to around 1.9 million people, which account for approximately one fifth of the total population. Of those 997,769.24 (52 percent) are female, 498,884.62 (26 percent) are of child rearing age, 95,939.35 (5 percent) are pregnant women, and 383,757.4 (20 percent) are children under five. They are dependent on primary health services provided by total of 106 health centers and 339 health posts in the two target regions.

Table 2.1: Districts and Primary Health Structures in Target Regions

DISTRICT	Population	Health Centers	Health Posts
LABE REGION			
Koubia	91,889	6	29
Lelouma	227251	11	32
Mali	246000	13	88
Togue	114377	10	28
Labe	251,504	18	20
FARANAH REGION			
Dabole	193445	10	18
Dinguiraye	224241	8	33
Faranah	223907	13	28
Kissidougou	346173	17	63
Total	**1,918,787**	**106**	**339**

4. Whilst the proposed project will focus on the community and health center level, the project recognizes the importance of simultaneously strengthening higher levels of care. Accordingly, the design takes into account that other Development Partners are planning to provide support towards the District and Regional Hospital level (see section on "role of partners" in Annex 3).

5. The following provides more detail on A) the rationale for selection of the target regions, and B) the three components of the project.

A) Rationale for the selection of Target Regions/Districts

6. The selection of the regions was based on the following considerations (1) high poverty levels, which was followed by (2) low health outcomes, (3) human resource shortage, and (4) partner complementarity. Information and data on each is provided below.

7. **Poverty:** The project is expected to target the poor. The two selected regions are the poorest regions in Guinea after Nzerekore, according to a nationwide poverty mapping exercise of 2012. The table provides information on key poverty indicators by region. Nzerekore is supported quite heavily by the EU and AfD (see partner complementarity).

Table 2.2: Poverty Indicators by Region

Région	Population (%)	**Incidence de la pauvreté (%)**	Contribution à la pauvreté (%)	Dépense par tête (FG)
Boké	10,1	**58,9**	10,7	3 285 413
Conakry	17,4	**27,4**	8,7	5 183 357
Faranah	8,1	**64,8**	9,5	2 963 846
Kankan	13,6	**48,7**	12,0	3 725 699
Kindia	15,9	**62,5**	18,0	3 192 636
Labe	9,3	**65,0**	10,9	3 140 259
Mamou	8,0	**60,8**	8,8	3 221 060
Nzerekore	17,7	**66,9**	21,4	3 052 875
Ensemble	100	**55,2**	100,0	3 575 515

Source: Poverte et Inequalite en Guinea, 1994-2012 (2012)

8. **Select Health Outcome indicators.** Labe and Faranah also have some of the worst health outcome indicators amongst all the regions. Indicators related to the provision of vitamin A, antenatal care visits, and mosquito net coverage (not listed below) were much better in Labe and Faranah in 2012 than many of the other regions, primarily because these services were supported by the previous WB project (which closed in 2014) and other donors at the time. Support is now required to continue this.

Table 2.3: Select Health Indicators by Region

	Maternal Mortality Per 100,000	Under 5 Mortality per 1000	% of births delivered in health facility	% children fully vaccinated
LABE	650 (not disaggregated in Guinea)	141	21.9	16.2
FARANNAH		163	21	19.7
MAMOU		129	13.8	12.6
NZEREKORE		120	24.5	35.7
KANKAN		194	30.7	31.5
KINDIA		135	27.6	25.4
BOKE		104	28.9	29.1
CONAKRY		70	74.2	33.2

Source: "Further DHS Analysis Report", 2012 DHS data (2014) (Lower CI)

9. **Human Resources Shortage:** With the exception of Kankan, Faranah and Labe in 2011 had the lowest health worker per population ratios amongst the regions, at 0.40/1000 and 0.43/1000 population. The benchmark associated with improved maternal and child health outcomes is 2.5 SBAs per 1000 population (WHO).

Table 2.4: Human Resources for Health Numbers, by Region (2011)

Région	Population	Doctors	(Nurses)	Midwives	ATS	Total MNCH HRH	HRH per 1000 pop
LABE	995,717	32	51	13	335	431	0.43
FARANAH	942,733	34	60	22	268	384	0.40
MAMOU	732,117	55	57	18	203	333	0.45
NZEREKORE	1,663,582	61	208	32	516	817	0.49
KANKAN	1,986,329	63	60	17	533	673	0.33
KINDIA	1,559,185	109	171	64	485	829	0.53
BOKE	1,081,445	41	75	19	352	487	0.45
CONAKRY	1,667,864	645	696	203	991	2535	1.51
TOTAL	**10,628,972**	**1040**	**1378**	**388**	**3683**	**6489**	**0.61**

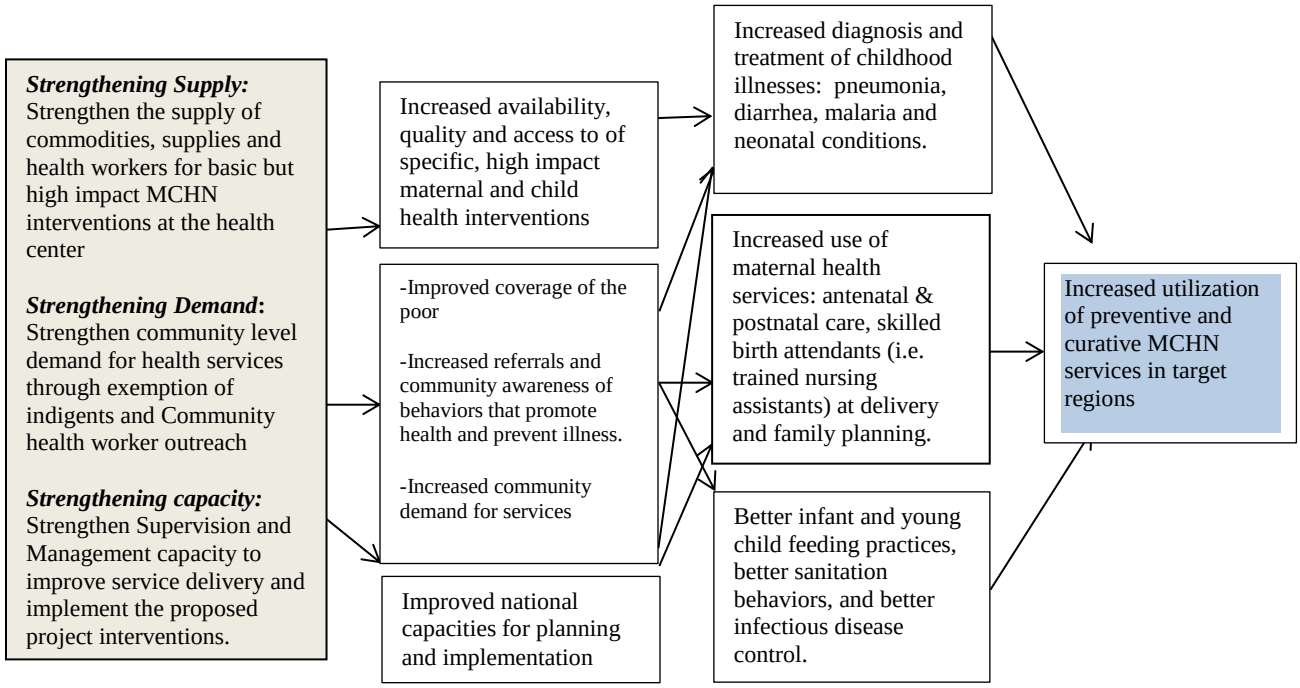
Source: Population numbers MoH 2012. HRH numbers; HRH numbers MoH 2011

10. **Complementarity with Partner efforts:** Given that the WB project will focus on community and health center level, additional donor funding would be needed to strengthen other parts of the health system in the target regions, including district and regional hospitals, and with it the continuum of care. Furthermore, because the Bank project will focus on two out of eight regions, other regions will have to be covered by partner agencies to ensure progress beyond the WB target regions. Finally, the existing interventions supported under the Project could be further reinforced and supported by additional funding from partners. All these aspects were taken into consideration in the selection of the project regions and districts. Discussions were carried out with the client and partners to ensure that any of the proposed post Ebola partner activity in Guinea is complementary to the proposed interventions. The table in Annex 3 "The Role of Partners" provides detail on how the Bank intervention fits into the overall picture of partner support on MNCH in the post Ebola phase, including support towards secondary and tertiary levels of care in the targeted project regions.

B) Detailed Component Description

11. To achieve its project objective, proposed interventions are organized around three complementary components: (1) Commodities and trained human resources for MCHN services at primary level. This component will focus on strengthening the supply of MCHN services at primary level, by ensuring availability of commodities and supplies and relevant health worker competencies to deliver MCHN services. (2) Strengthen community level demand for MCHN services. This component will focus on strengthening the demand for services, by supporting the financial coverage of indigents, and community demand creation by community health workers. and (3) Strengthen government capacity to plan, implement, monitor and supervise activities. This component will focus on strengthening supervision, management and implementation capacity, and evidence generation to guide implementation and more wide ranging future reform. The following Figure outlines the theory of change.

Figure 2.2: Theory of Change between intervention and outcome



12. **Sub-components are closely interlinked and follow a logical flow to increase utilization of services in the target regions.** Component 1.1 will make available MCHN relevant commodities and supplies at the health center and health posts level to be used by the health workers which will be newly recruited and trained under Component 1.2. Component 2.1 will exempt the poor from any fees for critical health services delivered at health post and health center level, whilst newly trained and incentivized community health workers under Component 2.2 will encourage the poor to utilize health services, spreading the word on availability of staff and medicines at health post and health center level. Component 3.1 will strengthen overall management and supervision capacity of district health authorities to ensure that newly available medicines and health workers translate into actual services. And Component 3.2 will generate knowledge to inform possible scale up and broader health systems strengthening, whilst Component 3.3 will build overall government capacity to implement and monitor all of the above interventions. The following discusses each component and sub-component in greater detail.

Component 1: Commodities and trained human resources for MCHN services at primary level (US$6.0 million)

13. This component will strengthen the delivery of services at the health center and health post level in target areas by improving the availability of critical commodities and supplies as well as human resources for health for maternal and child health. The component is organized into two sub-components: Sub-component 1.1: Strengthen the availability of maternal and child health commodities and supplies at primary health level; and sub-component 1.2 Expand the number and competencies of health workers to deliver enhanced, high impact maternal and child health services at primary level.

Sub-component 1.1: Strengthen the availability of maternal and child health commodities and supplies at primary health level (US$2 million)

14. Stock-outs of critical Maternal and Child health medicines and supplies at the health center and health post level in Guinea are a critical supply side constraint, particularly in more remote parts of Guinea (PER 2014). With Ebola, this constraint has grown, as existing resources (from donors and government) have been absorbed by the Ebola response effort. Moreover, the slowdown in health service utilization has affected cost recovery and the drug revolving funds at the facility levels used to purchase and sell drugs. In Guinea, under the current conditions, the most immediate bottleneck to reducing stock outs is the lack of funding available for the procurement and distribution of drugs, followed by adequate drug management practice at the health facility level.

15. The sub-component will finance procurement and distribution of a stock of essential supplies to health facilities, and support the training of health facilities in the management of pharmaceuticals and supplies. Specifically, the sub-component will (i) initially replenish the stocks of medicines and supplies for health facilities in the targeted areas, (ii) restore a functional revolving drug fund within the health facilities, (iii) cover any financial gap to procure medicines the subsequent years, and (iv) support the training of facility managers in drug management. The sub-component will rely mainly on the national central medical store for procurement and distribution of essential generic medicines (and provide relevant training on drug management to health facilities) and on development partners (MSH, Global Fund, UNICEF, UNFPA) which will provide key commodities and supplies for immunization, family planning, treatment of malaria. The sub-component will draw on a mix of cost-consciousness, agility and smart investments to achieve the expected outcome. The procurement, distribution and training will be carried out by the National Central Medical Store (currently benefiting from significant partner support), which is well connected to regional warehouses in Labe and Faranah from where supplies will be delivered to the health centers (and posts). The following provides additional details on the intervention.

16. Selection of medicines and other essential supplies will be based on the list of essential RMNCH interventions at the community and primary level established by the MOH, following WHO guidelines[19] (with significant attention paid to the 13 life-saving commodities endorsed by the UN Commission on Life-Saving Commodities for Women and Children) and taking into account the existing in-kind contributions by other donors and agencies. For instance, malaria commodities (ACTs and bed nets) are expected to be mostly provided by PMI in the Labe region and by Global Fund in the Faranah region. Family planning commodities are financed by UNFPA or USAID and their in-country distribution is supported by JSI, while vaccines are managed by GAVI/UNICEF as in many other countries. The project is also expected to leverage the mass drug administration campaigns for neglected tropical diseases such as river blindness and schistosomiasis and to work with the corresponding government agencies (PNLOC) to tackle these diseases which have a high burden on children. While a gap identification exercise will be finalized during the early implementation phase, the project is projected to mostly finance antibiotics, maternal health medicines such as uterotonics, oral rehydration salts (ORS), zinc, vitamin A and micronutrients, newborn health commodities, anti-inflammatory drugs and pain

[19] http://www.who.int/pmnch/knowledge/publications/201112_essential_interventions/en/

killers, medical supplies which is compatible with the limited budget as most of these commodities are relatively inexpensive compared to those brought by the other donors.

17. Procurement of medicines will be generally done by the central medical store, the *Pharmacie Centrale de Guinée* (PCG), which is benefitting from technical support from the European Union and MSH/SIAPS until end of 2016, and according to the Model Quality Assurance System (MQAS) established and recently revised by WHO and partners. As mentioned above, procurement of specific medical products nevertheless remains with key partners. After the initial procurement and delivery to health facilities, health facilities will use their own drug revolving funds to finance subsequent medicines and supplies, which they may order from the PCG or other avenues.

18. Distribution of medicines will be done by the PCG until the dispensing point (the health center). Essential medicines procured by the PCG are usually transported to the regional hubs where they are picked up by the *Directions Préfectorales de Santé* (DPS). A few vertical programs (malaria, family planning) ensure distribution of commodities until the delivery point. This project will promote an integrated approach to the last mile delivery, building upon the existing approaches adopted by the aforementioned vertical programs.

19. In addition to the procurement and supply of critical pharmaceuticals, the PCG will also be funded to provide advice and training to health facilities with respect to medicines storage and inventory management, which should mitigate the risk of product diversion at the facility level. This will be included as part of the contract with the PCG. All this is expected to complement efforts by other development partners who are planning to strengthen good pharmaceutical management practices, including innovative systems to manage pharmaceutical cost recovery and the use of treatment algorithms and flowcharts to promote rational use of medicines.

20. A few key success factors have been identified to ensure maximum impact of limited funds under this sub-component:

(i) **Cost-consciousness** will be critical to get the best value for money from the investment. PCG will have to confirm its international bidding capacity and its ability to buy at prices equivalent to international reference ones. Warehousing, distribution and training services should be provided at a fair price.
(ii) **Collaboration** will be instrumental to optimize distribution and training costs. The more integrated the last mile distribution will be, the more savings the project will be able to achieve.
(iii) **Smart investments** will be prioritized. Investments in securing the supply chain or strengthening the facility revolving drug funds can have a sustainable impact over the course of the project and reduce the need for additional funding to purchase medicines.
(iv) **Agility** will be required to manage the budget according to the needs that will surface during the course of the project and grasp any opportunity to piggy back on partners' new projects and initiatives.

21. The implementation arrangements, and in particular the competences required (and recruited by the project) within the Project Coordination Unit (PCU), have taken into account these success factors.

Sub-component 1.2 Expand the number and competencies of health workers to deliver enhanced, high impact maternal and child health services at primary level (US$4 million)

22. Already prior to the Ebola Crisis, in early 2014, only 44 percent of the nurses and 18 percent of the midwives required for maternal and neonatal health services were available in the Republic of Guinea[20]. Moreover, most of them were concentrated in urban centers only. Since Ebola, the available numbers of nurses and midwives is likely to have declined even more. In the absence of nurses or midwives particularly from more remote parts of Guinea, the high number of auxiliary nurses who are currently employed (called *Agents Technique de Santé* – ATS), as well as those who are currently unemployed (a significant number) provide an opportunity for improving the availability, accessibility, and performance of the health workforce for maternal and neonatal health in Guinea, especially in rural areas.

23. The health worker cadre most represented at the primary level and in rural areas, are the auxiliary nurses (ATS). "*Agents Techniques de Santé*" (ATS) are a critical cadre serving the primary level in Guinea. Originally produced to staff the heath post level, and assist a nurse or midwife at the health center level, ATS today in reality are some of the only health workers found in rural areas at both the health post and/or the health center level. Whereas nurses, midwives and doctors largely staff higher level facilities in urban areas, the rural poor thus largely rely on the ATS to deliver services, attend births, and supervise Community Health Workers. In the reality of absence of other health workers, such as midwives and nurses, ATS carry out all the functions expected of midwives, Medical officers and nurses at that level in Guinea.

24. ATS are the only health worker cadre specifically trained for deployment at the primary level across the country. Whilst nurses and midwives in Guinea receive their training largely in urban settings across the country (in several private schools in Conakry, but also some private schools in Labe, Kindia And Nzerekore, and one public not well performing school in Kindia) ATSs are trained in a number of decentralized community training schools across the country over a period of three years (ATS schools exist in Boke, Faranah, Labe, Nzerekore, Kankan). Unlike nurses and midwives, they are specifically trained for community/primary health service delivery, and for deployment at the health post level. In actual fact ATS today are often the only clinical cadre working at the health center level in rural areas across the country. Whilst the vast majority of nurses, midwives and doctors are found working in urban areas following their deployment, the cadre most represented in rural areas at the primary level is the ATS.

25. The Ebola crisis as well as the government's limited budget to hire health workers has impacted the number of ATS available for service delivery in the public sector. With Ebola, funding was redirected from the provision of basic MNCH services towards Ebola containment, which meant many health workers including ATS were drawn into the Ebola response effort.

[20] Jansen C, et al (2014). Realizing universal health coverage for maternal health services in the Republic of Guinea: the use of workforce projections to design health labor market interventions

Given the government's lack of funding, few are expected to be absorbed following their Ebola work. And the large number of health workers, in particular ATS, who have not been drawn into the Ebola response effort, are already currently unemployed or working in different sectors. They represent a lost resource at a time when human resources are urgently needed, particularly at the primary level.

26. Furthermore, even where available today, ATS fall short in key midwifery competencies and function without support structures to maximize their performance on MNCH. Over their three year training, ATS are equipped with competencies to carry out all major MNCH services at the primary level, however they fall just short of being considered a skilled birth attendant (see box 2 below). In addition they often lack continued refresher training, mentoring and supervision to maximize their effectiveness for broader MNCH service delivery. Their performance is further affected by the lack of commodities and supplies they have at their disposal, needed to deliver adequate services.

BOX 2: Birth attendance and ATSs

In Guinea, assisted births are attended by a physician (Médecin-Généraliste [MG]); a nurse (*Infirmier Diplômé d'Etat* [IDE]); a midwife (*Sage-Femme* [SF]); or an auxiliary nurse (*Agent Technique en Santé* [ATS]). These cadres are called "trained providers." Of all births, 40 percent are assisted in a health facility, and 88 percent of these births take place in the public sector. This is lower in rural areas, where only 32 percent of all births are assisted by a MG, IDE, SF, or ATS. In these rural areas, 29 percent of all births take place in a health facility, of which 97 percent are in the public sector. SFs provide most of the trained birth assistance however in rural areas, in the absence of fully qualified staff, ATS assist in the deliveries as well traditional birth attendants, or family members and friends assist in deliveries. Indeed, ATS are not fully qualified SBAs. Auxiliary nurses (or ATS) have received 3 years of training after their *Brevet d'Études du Premier Cycle (BEPC)*, first secondary education cycle, or junior high school), and this training includes limited attention to Maternal and Neonatal Health (MNH). As opposed to the MG, IDE, and SF, ATSs lack key maternal and neonatal health (MNH) competencies in Guinea. Currently no formal document exists that prohibits or allows ATS to assist during birth.

27. This sub-component will aim to address the immediate need for health workers at the health post and health center level in the poorest regions in Guinea. Whilst fundamental longer term reform is needed to improve the distribution of nurses and midwives (including decentralizing the training of nurses and midwives to rural areas – potentially transforming the decentralized ATS training centers into nursing and midwifery training centers) in the shorter term shifting midwifery and child health and nutrition related **competencies** on auxiliary cadres recruited and deployed for work in rural areas will be more effective than shifting nursing or midwifery **cadres** to rural areas, given their inadequate profiles, lack of willingness, and higher expense and opportunity cost linked to such a move in the Guinea context[21]. Accordingly, the sub-component will focus on the following two objectives:

[21] Evidence on shifting higher level cadres to rural areas is very mixed, with success often directly linked to the opportunity cost associated with loss of income that can be generated in urban areas: in Guinea, this would be substantial. Over the long run, implementing rural pipeline approaches (in particular public sector production of midwives) or significantly improving working conditions through monetary and non-monetary incentives could improve the distribution of higher level cadres. The introduction of RBF in the future holds potential to improve working conditions and incentives in rural areas.

a) Increase numbers of ATS (or other health workers) at health center and health post level: Investments will be geared primarily towards hiring unemployed[22] ATSs (as contractors or consultants) and placing them into health centers and health posts in project target districts. According to the norms, a minimum of three ATS should be available at the health center (in addition ideally to one midwife and one nurse) and 1 ATS at health post level. If no nurse or midwife can be found willing to work at that level, the health center should be staffed with 5 ATS. This will fill a massive health worker gap at the primary health care level, which was made worse by the Ebola crisis. The hiring of additional ATSs will complement the number of ATSs and other health workers already present in the target districts. Whilst the project will cover the initial cost of deployment of additional ATSs (a total of 450 by year, three across the nine districts), dialogue will be carried out to ensure that the cost will be incrementally transferred to the government, until absorbed fully by the end of the project period. The recruitment of ATSs at the health center level would benefit from donor efforts to deploy voluntary midwives to the district hospital level (for example supported by USAID) to secure a continuum of care upwards and provide an additional basis for overall supervision.

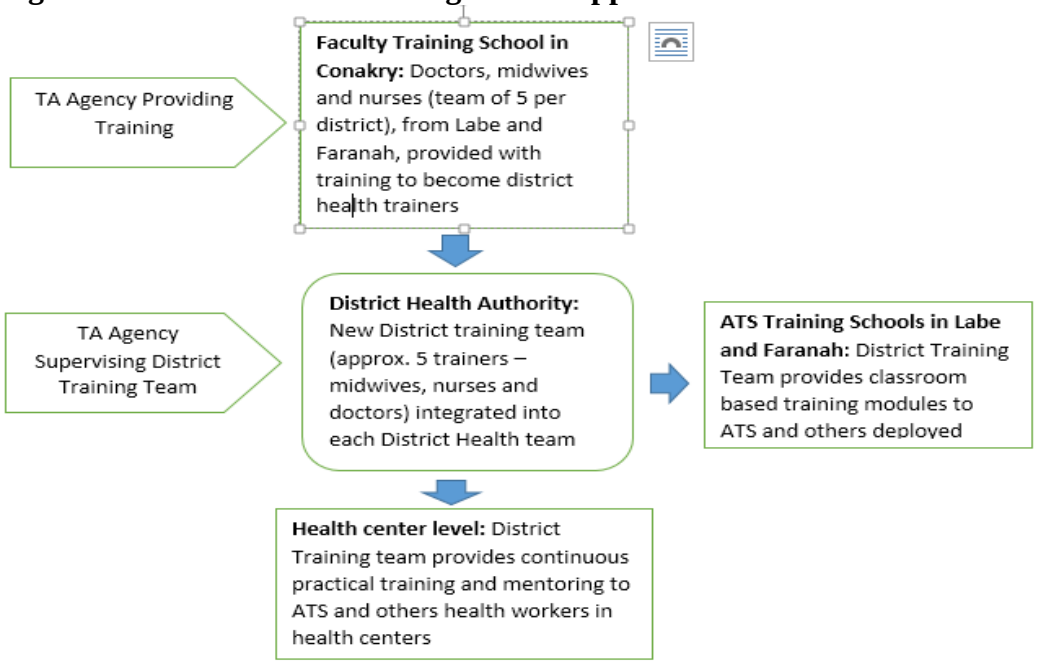
Table 2.5: Estimated number of HRH (ATS) to be recruited in target regions

	Yr1	**Yr2**	**Yr3**	**Yr4**	**Yr5**	**TOAL COST (US$)**
Number to be hired	0	150 (16.6 per district)	300 (33.3 per district)	450 (50 per district)	450 (50 per district)	
Cost (based on ATS salary of US$1680 per year)	0	252,000	504,000	756,000	756,000	2,268,000

b) Improve Child and particularly maternal health Competencies of ATSs and other health workers at health center level: The project will support the government develop and implement an appropriate district level training model and curricula to address the lack of continuous skills development and mentoring for ATS, and key weaknesses in their competencies particularly in the area of maternal health (not adequately covered in their curricula). Specifically, the project will fund (i) Training of trainers (from district) in the national health worker training center in Conakry: i.e. training of trainers, selected from the target district, will be carried out in Conakry after which they will be placed back into their district level administrative units as District Trainers. The project will fund the training of trainer's costs as well as the initial salaries of any additional district level trainers produced (to be subsequently absorbed by the government), (ii) Training of ATSs and other health workers at district level. The District level trainers (integrated within the district health team) will be responsible for delivering an ongoing training curriculum and mentorship program to ATSs and other health workers available at the health center and health post level. The training will be a combination of theoretical training (making use of existing district ATS training school facilities in the target regions of Labe and Faranah), and practical training, which will be on the job training at health post and health center level, with some modules on maternal health carried out also at the district hospital level (in maternity wards). Once the minimum training has been carried out, the ATSs and other health staff will be continually mentored by the district level trainers (and supervisors) throughout their practice.

[22] A large proportion of ATSs are unemployed due to the limited fiscal space of the government to hire them.

Figure 2.3: District Level training model supported



28. The district level training curricula and modules on MCHN, which will be supported under the project and finalized during early implementation, will guide the district level training of ATSs and others. The training is not expected to occur back to back (and thus disrupt service delivery), but broken up into manageable smaller training segments, focusing on practical training in clinical settings, with continuous follow up and mentorship from the district. An example of training modules spanning an initial total of 3 months include competency building in the following areas include: Expanded applied program of Immunization (EPI) – (five days), Applied Integrated Management of Childhood Illness (IMCI) – (six days); Applied Emergency Obstetric care EMONC – (21 days); Applied Adolescent health – (10 days); Applied Family Planning (FP) – (12 days); Applied Reproductive Health cancers – (10 days); Applied Infant and Young Child Feeding (IYCF) – (five days); Applied Sexual and Gender Based Violence – (seven days); Applied Prevention of Mother to Child Transmission (PMTCT) – (12 days); Working as a Team: Supervision and management of Community Health Workers (five days); Ebola response and containment (three days). Particular focus on the continuous training of ATS will be placed on strengthening their maternal health competencies (considered particularly weak), based on recent evidence on optimizing such competencies for Auxiliary Nurses (See Box 3).

Box 3: Example of optimizing maternal health competencies of ATS in Rural areas

The WHO recommends the use of Auxiliary nurses to deliver the following interventions currently not fully addressed, including: (1) systematic IM administration of Oxytocyn to prevent postpartum hemorrhage using (a) a standard syringe, and (b) a compact, prefilled auto disable device; (2) administration of oral misoprostol to prevent and treat postpartum hemorrhage; (3) administration of intravenous fluid for resuscitation for postpartum hemorrhage; (4) suturing of minor perineal lacerations; (5) initiation and maintenance of injectable contraceptives using a

syringe; and (6) supervising and working closely with community health workers. They can further deliver the following interventions with targeted monitoring and evaluation: (1) Administration of oxytocin to treat postpartum hemorrhage using syringe or prefilled auto disable device; (2) initiation and maintenance of breastfeeding, initiation and maintenance of kangaroo mother care for low birth weight infants; (3) internal bimanual uterine compression for postpartum hemorrhage and use of anti-shock garment; (4) insertion and removal of contraceptive implants; and (5) administration of antihypertensive for severe high blood pressure during pregnancy. Birth preparedness, referral for identified complications (prolonged labor, hemorrhage, infection, fits, neonatal complication)

Component 2: Strengthen Community-level demand for MCHN services (US$4.0m)

29. This component seeks to strengthen the demand for health services at the community, by implementing interventions categorized into the following two sub-components*:* Sub-Component 2.1 Strengthen financial access to essential health services for indigent population; and Sub-Component 2.2: Institutionalize the training and deployment of community health workers to generate demand and deliver basic services in maternal and child health.

Sub-Component 2.1: Strengthen financial access to essential health services for indigent populations (US$2.0 million)

30. The poorest of the poor see financial cost of health services as a main barrier to health service utilization. The 2014 PER found that in Labe Region, 14.2 percent of the population claimed that a key barrier to health service utilization was the "cost that was too expensive". In Faranah, this figure was 18.8 percent. It is likely that since Ebola, which has contributed towards further impoverishment, this number is much higher.

31. The project will introduce mechanisms to improve financial access to essential health services at the community and health facility level among the poorest and vulnerable households. The mechanism that will be used to identify the poor will follow a rigorous and verifiable approach which will cover health care for indigents provided at health facility levels. The project will introduce fee-waivers for certain essential fee based maternal and child health services for the systematically identified vulnerable households. In order to fill the financial gap caused by this loss in facility revenue through the absence of direct payments, facilities will be reimbursed for services provided free to the vulnerable. The following provides the relevant detail.

32. The project will support a local NGO to develop and coordinate a transparent mechanism for the selection of indigents to benefit from free primary health services under the project. The indigents to be supported under the project will be the poorest 10 percent of pregnant women and children (under five) living in the two targeted project regions. Selection criteria will be developed during early implementation of the project closely with community leaders and health centers, and ensure low inclusion bias, and high acceptability by communities in the target regions. Such criteria may include assets, habitat, physical deficiency, food sufficiency, etc. As coordinated by the NGO, the health facility management committee (CoGes) with key leaders of the community (village selection committee) will then be asked to use these criteria to select the poorest households in their area.

33. The process of selecting indigents and providing fee waivers, as coordinated by the NGO, and to be detailed in the PIM will include the following aspects: (a) creation of community selection committees in each communities (village or town sector); (b) ranking of indigent populations and validation of final lists of selected individuals(c) delivery of enrollment cards/papers for the selected indigents and (d) indigents granted access to specified services (health post and health center services etc.) free of charge. After internal verification, facilities receive payments for verified services. The identification process is repeated bi-annually.

34. Payment/reimbursement to health centers: The health centers will be provided with the list of indigents. All indigents are eligible to receive the package of health services for free. An aggregate list will be generated by the health center's monitoring and reporting system and used to list the names of all the indigent beneficiary who received services during an indicated period. The lists will be generated every month and will be verified (by the NGO with counter-verification by the district) every quarter before sending for payment. The health center will be reimbursed quarterly by the MoH. The *Payments List* includes the following information: geographical location, beneficiary's name, services provided, and beneficiaries' signature/finger print. An exit survey can be done once a year to verify if indigents are satisfied and have really received the services (as also tracked in an intermediary indicator).

35. Cost and coverage of intervention: The beneficiaries will be pregnant women and children under five. Of the roughly two million people living in the two target regions of Labe and Faranah in Guinea, approximately 100,000 are pregnant women and 400,000 are children under five. Of the total of 500,000 target population (pregnant women and children), the project will eventually support the financing of free health services for 50,000 of the poorest pregnant women and children in the two target regions by year five. Health centers will be reimbursed quarterly by the MoH (the project PCU). Practically, the budget under this sub-component will cover (i) NGO cost to coordinate and verify the indigent selection process, (ii) provision of free health services (i.e. reimbursement to facilities by PCU), as illustrated in table 2.6.

Table 2.6: Approximate number of indigents covered under the project and estimated cost

	Y1	**Y2**	**Y3**	**Y4**	**Y5**	Total Cost (US$)
# indigents selected (provided with fee waiver cards)	0	5,000	20,000	30,000	50,000	
Cost based on per capita US$10 assumption expense per year		50,000	200,000	300,000	500,000	**1,050,000**

Sub-Component 2.2: Institutionalize the training and deployment of community health workers to generate demand and deliver basic services in maternal and child health (US$2.0 million)

36. Community health workers are widely accepted in Guinea and global evidence supports their potential in demand generation and service extension. The PER (2014) found that CHWs were particularly appreciated in the area of awareness raising and mobilizing women to attend

clinical care prior to Ebola. CHWs are a diverse group often categorized into: one full-time, paid, with formal pre-service training (up to a year) and two volunteer, part-time workers, with short training (one to three weeks), with or without payment or incentives. This later group is found in Guinea. Global evidence suggests that whilst the former group is overall preferable, both groups hold potential to generate demand and extend basic services into the community level if adequately trained, supervised, incentivized and integrated into the health system (WHO, 2014).

37. Historically, training of Community health workers in Guinea has largely been driven by the program priorities and interests of various donors and NGOs. Training of CHW in Guinea was usually short (one to three weeks) carried out by different NGOs or partners, with a focus on developing vertical competencies. Their training and supervision was seldom linked or integrated into the existing structures of the public health system, and remuneration and supervision arrangements varied significantly. With Ebola, many community health workers were drawn into the Ebola response effort, non-Ebola related training efforts by NGOs ceased, and non-Ebola community level services largely fell to the way side.

38. This sub-component will support the government institutionalize the training of CHWs and scale up their role in delivering key MNCH services. The sub-component will ensure that those community health workers trained under Ebola, as well as others, remain relevant and "employed", and that they are trained in critical vertical MNCH competencies (over a period of three months) and supervised by the government, rather than NGOs, to provide critical maternal and child health promotion and services to communities much in need. Aside from funding a district level training and mentoring program, the sub-component will provide funding for incentives and supervision, optimizing the potential of CHWs in to generate demand and deliver basic care within their communities. The following provides additional details on the support provided towards (A) their recruitment and (B) their continuous training.

(A) Finance/recruit community health workers for MNCH tasks: The project will cover the initial cost of deployment of Community health Workers for MNCH tasks. Remunerating and incentivizing community health workers (in addition to supervision) is key for their effectiveness. Paid during the Ebola response phase, ignoring community health workers post Ebola is likely to significantly demotivate them, with demands for integration and pay, disrupting existing community level services, and further eroding trust in the health system. The government norm on the number of community health workers linked to each health center is 10, and the project will fund five per health center (with the remaining expected to be funded by other partners, such as USAID). With a total of 106 Health centers in the two project target regions, the project will eventually support the financing of 530 CHWs by year. The project will also support technical assistance to support the development of strategies for their career progression and eventual integration into the formal health system and payroll.

Table 2.7: Estimated number of community health workers to be recruited

	Yr1	Yr2	Yr3	Yr4	Yr5	TOAL COST (US$)
Number to be hired	0	100	300	530 (5 per health center)	530 (5 per health center)	
Cost based on yearly remuneration of US$720.	0	72000	216,000	381,600	381,600	1,051,200

(B) Set up a District level training arrangement to improve Maternal and Child Health Competencies of Community Health Workers: This will involve carrying out district level in-service training to existing community health workers and upgrading their competencies related to maternal and child health service delivery and promotion (See Box 4 regarding the competencies), as well as continued professional development and mentoring once in post. The project will fund an institutionalized district level training model to facilitate this. This will include (i) Training of trainers (from district) in the national health worker training center in Conakry (this will be the same team as the ATS training team): i.e. funding training of district level trainers (nurses or midwives). This training of trainers will be carried out in Conakry after which they will be placed back into their district level administrative units as *District Trainers*. The project will fund the training of trainer's costs as well as the initial salaries of any additional district level trainers produced (to be subsequently absorbed by the government), (ii) Training of Community health workers at district level. The District level trainers (integrated within the district health team) will be responsible for delivering training to District level community health workers around an integrated, continuous horizontal curriculum on maternal and child health and nutrition promotion. The project will provide funding to facilitate this training. This will include carrying out a combination of theoretical but largely practical, on-site training within a team setting (i.e., including the ATS). The training modules will be delivered in monthly phases. Once all modules are completed, the community health workers will be continually mentored and supervised (by the health center team and the district team).

Box 4: Optimizing the role of Community health Workers

The WHO recommends the use of lay (community) workers to carry out a number of functions that will be focused on in this intervention, including to: (1) promote appropriate care seeking behavior and antenatal care; (2) promote companionship during labor; (3) promote sleeping under a bednet; (4) promote birth preparedness; (5) promote skilled care for childbirth; (6) promotion of adequate nutrition and iron and folate supplements; (7) promotion and support towards growth monitoring; (8) promotion of reproductive health and family planning; (9) promotion of HIV/AIDS testing; (10) promotion of exclusive breastfeeding; (11) promotion of postpartum care; (12) promotion of immunization according to national guidelines; (13) promotion of kangaroo mother care for low birth weight infants; (14) promotion of basic newborn care; in addition (15) administration of misoprostol to prevent postpartum hemorrhage; and 16) provision of continuous support for the woman during labor in the presence of a skilled birth attendant.

39. The development of a longer term training strategy for community health workers will be supported under component 3. The development of programs similar to extension worker programs in Ethiopia, Afghanistan, or Zambia for example, where community lay workers receive up to 1 year training and are then absorbed by the public payroll, will require time and effort, careful considerations, policy amendments and significant political and fiscal support. The research and analytical work supported under component 3.2 will guide the development of longer term CHW solutions for Guinea, solutions that will be based around institutionalized pre-service training of CHWs and their absorption into the public sector payroll and formal health sector workforce.

Component 3: Strengthen government capacity to plan, implement, monitor and supervise activities (US$5.0 million)

40. This component would ensure that the above inputs translate into actual services delivered, largely by (1) Strengthening supportive supervision at district level and below, (2) Strengthening the capacity of the MoH to generate evidence for longer term health systems strengthening, and (3) strengthening the capacity of the MoH in project management and implementation. All interventions will ensure that inputs and concepts are adequately translated into services.

Sub-Component 3.1: Strengthen capacity to carry out district level supportive supervision of health centers and posts in target regions (US$1.5 million)

41. The sub-component will support the government set up district level supportive supervision arrangements for district hospitals, health centers, and health posts. Support will be provided to district health Directorates to strengthen their supervision and monitoring of, health centers and health posts (within a broader mandate of responsibility[23]). Supportive Supervision is an excellent opportunity to provide follow-up training, improve performance, and solve other systemic problems that contribute to poor service delivery performance[24] at health facilities. It is a process whereby managers and supervisors guide and encourage personnel to optimize their performance in a supportive environment and recognize them when they attain a high level of performance[25]. Unlike traditional approaches to supervision, in supportive supervision the supervisor works closely with people he or she supervises to establish goals, monitor progress and identify opportunities for improvement (table 2.8).

42. A number of constraints currently prevent the District teams from adequately carrying out supportive supervision. In Guinea, the role of the district is to supervise the health centers (in addition to the district hospitals), and ensure adequate performance and motivation of staff. Some of the key bottlenecks that prevent the district level from carrying out supportive supervision currently include: (a) Lack of clear action plan on supervision: There is no clear action plan on supervision despite the general consensus about its importance; (b) Budgetary constraints: No specific budget allocation for supervision is available; (c) Inadequate skills for supportive supervision: Most district managers with clinical, medical or nursing training have

[23] The MOH's Institutional and Organizational framework specifies the responsibilities of different actors within the health system in the context of decentralization.
[24] http://www.path.org/vaccineresources/files/Guidelines_for_Supportive_Supervision.pdf
[25] USAID 2010, *Uganda Ministry of Health and USAID Deliver Project – Encourage Supportive Supervision*, USAID.

not had adequate training in health management to enable them to carry out effective supportive supervision (the district health team is comprised of doctors, nurses and midwives); (d) Low motivation: most district health managers, like other health workers, are not sufficiently motivated to carry out supervisory functions due to low salaries, limited incentives and limited opportunities for career development as a manager; (e) Lack of transport and logistics: District health managers often have limited access to transport and other logistics required to enable them to undertake frequent supervisory visits in their districts; (f) Heavy workload: Many of the district managers actually perform clinical roles (as they have clinical backgrounds), which leaves them with very little time to perform their managerial and administrative functions.

Table 2.8: Comparison of traditional and supportive supervision

Action	Traditional Supervision	Supportive Supervision
Who performs supervision	External supervisors designated by the service delivery organization	External supervisors designated by the service delivery organization; staff from other facilities; colleagues from the same facility (internal supervision); community health committees' staff themselves through self-assessment
When supervision happens	During periodic visits by external supervisors	Continuously: During routine work; team meetings; and visits by external supervisors
What happens during supervision encounters	Inspection of facility; review of records and supplies; supervisors makes most of the decisions' reactive problem – solving by supervisor; little feedback or discussion of supervisor observations	Observation of performance and comparison to standards; provision of corrective and supportive feedback on performance; discussion with clients; provision of technical updates or guidelines; onsite training; use of data and client input to identify opportunities for improvement; joint problem solving; follow up on previously identified problems
What happens after supervision encounters	No or irregular follow up	Actions and decisions recorded, ongoing monitoring of weak areas and improvements; follow up on prior visits and problems.

(Source: Marquez and Kean, 2002)

43. To address these constraints, the sub-component will help the government strengthen district health teams in the following: (a) develop a policy and action plan for supportive supervision: Such a policy and plan will identify the purpose of supervision, the implementation process including the responsibilities of managers undertaking the supervision, the frequency of supervision and the role of staff being supervised; (b) allocate funding for supervision: funding will be allocated to implement a supportive supervision policy. The project will initially support these funds however the government is expected to absorb and earmark these funds; (c) develop personnel management skills of district managers: Supportive supervision requires a unique set of skills. The project will support that managers are trained to provide mentorship and to identify and respond to good performance. The specific type of training will be driven by the supervision needs of particular districts; (d) provide incentives: Both financial and non-financial incentives for both district supervisors and employees who show greater engagement in their jobs and maintain high performance will be provided; (e) provide adequate transport and logistics: The project will support the districts in this regards, mainly by identifying vehicles that were already purchased during the Ebola response operation. These vehicles will be located and allocated towards the districts if needed; (f) assess clinical workload of managers: district health managers

with clinical backgrounds who perform dual roles as clinicians and managers will have their workloads assessed and adjustments made to ensure they have time for their managerial functions.

44. The project will support a total of 9 district health teams (five in Labe, and four in Faranah- comprised of four to five persons each – doctors, nurses, midwives) carry out supportive supervision of a total of 106 health centers (58 health centers in Labe and 48 in Faranah. A well designed checklist is critical to the supportive supervision program. The District Team will be closely supported (with strengthening activities implemented and organized) by the PCU (in conjunction with the regional level). Box 5 provides an illustrative example of a supportive supervision program from Tanzania which encompasses the principles to be applied in Guinea. The strengthening of district level supervision is expected to be complemented by the efforts of USAID in the Labe Region, which will focus on strengthening district level structures and service delivery in the post Ebola context.

Box 5: Example of a Supportive Supervision program in African Country*/

Following the health sector reform in a particular country in Africa, the Ministry of Health developed an integrated health package to guide essential health service delivery. A supportive supervision program was included in the package. A team of supervisors were sent to district health facilities to evaluate how services were being delivered, provide feedback and conduct on-site training. Funding for the program came from the Ministry of Health through basket grants funded by various donors. All members of the District Health Management Team (district team) and some co-opted members were given training in supportive supervision as part of the overall training in the objectives of health sector reform. A key supervision and management tool that came out of the training was a supervision matrix.

Before a supervision visit, the district team prepares a matrix listing the months and dates of all supervisory visits, routes and vehicles for each trip, facilities to be visited and members of the supervision team. The district team has to ensure that logistics and supplies needed for the visit are available. The Ministry of Health purchased a vehicle for supervision in each district and trained transport officers after it became clear from the district team matrix that there were insufficient transportation to carry out the needed supportive supervision. Funding for this was provided by the Danish International Development Agency.

For each supervision visit the team develops a supervision checklist using national guidelines and the previous supervision report. Four members of the district team conduct supervision visits on a monthly basis. The teams alternate until all the district health facilities (both public and private) have been visited. When the team reaches the facility, they divide into specific areas of specialization. The team supervises health workers through direct observation and interviews. Immediate feedback is encouraged and the team debriefs with the head of the facility. It then meets with all staff and provides general feedback, praise and suggestions for improvement. On-the-job training is provided during the supervision visit. If there is a technical problem that the team cannot address immediately, the problem is presented to the rest of the district team members or to the area specialist for further action.

After each supervision visit the team goes back to the district headquarters, writes a full report and discusses results with the whole district team core and co-opted members. Action items are listed for challenges that are not resolved during the facility visit. A copy of the supervision report is sent back to each facility visited and to the Regional Health Management Team (regional team). Difficult issues that could not be resolved by the district team are referred to the regional team. The process then continues until all health facilities in the district have been reached. Supervision at the regional level by the regional team follows the same process and format. Difficult problems are sent to the Ministry of Health for further discussion and possible resolution.

Since the supportive supervision system was implemented, health workers have noticed a significant improvement in supervision. Supervisory contact has become more frequent, problems have been resolved and on-the-job training has been conducted. Supervisory visits have become an opportunity for health workers to resolve problems and learn additional skills. Health workers have no longer been afraid to address challenges and are now able to work with the district team to resolve any issues.

*Country example based on experience of Tanzania.

Sub-Component 3.2: Support evidence generation to inform post Ebola health systems strengthening (US$1.0 million)

45. This sub-component will provide funding for key analytical work, research and TA to guide post Ebola health systems strengthening in Guinea. Funding will support technical assistance to carry out a Results Based Financing experiment (see box 6 with a cost of US$400,000), and the production of a number of analytic and policy papers in health and nutrition, including health financing, planning and budgeting, human resources for health (including community health workers), and drugs and medical supplies (at a total cost of US$600,000). The specific topics of the papers will be decided by the Guinean Government annually, and complement those of partners. The overall objective of the TA on the RBF experiment and the various analytical works will be to provide strategic information and evidence to be used for the development of policies, medium and long term strategic plans, and annual plans and budgets.

Box 6: Implementing a pre-pilot on Results Based Financing, in one district, to produce evidence on more comprehensive service delivery reform for the future

The Project will provide support to the Ministry of Health to develop and implement a Results-Based Financing pre-pilot (US$400,000). Results-Based Financing is a mechanism that links financing to achievement of predetermined results, with payments made to providers after verification of the results. RBF can help strengthen health systems performance, through different mechanisms as for example a stronger motivation of health workers and increased accountability and autonomy of health facilities and their staff. RBF is now implemented in many African countries (pilots but also at national level in some countries as Rwanda, Burundi and Sierra Leone). In Guinea, RBF could possibly improve service delivery at medium term, and especially utilization and quality of maternal and child health services. The project will set the stage for the development of a possible RBF pilot by funding the introductory phase and a pre-

pilot experiment on RBF in one district at primary health center level near Conakry. An actual larger pilot targeting rural areas could be funded through a subsequent project, additional financing, HIRTF, or other partner funds, depending on demand, available capacity and suitable timing.

The **introductory phase** funded under the project will involve training of personnel at the national level and the pre-pilot areas, provision of technical assistance and organization of workshops for the development of the RBF pre-pilot scheme (list of indicators, RBF tools and documents, monitoring and verification modalities, institutional arrangements, costing, etc.). After this introductory phase (expected to be implemented during first year of the Project)

The **pre-pilot phase** supported under the project will be implemented in a rural Health district (covering around 100,000 inhabitants) for one year. During the pre-pilot, RBF credits would be transferred to health providers (primary health facilities and district hospital) on a regular basis, and the Project would also fund regulation and verification functions for RBF. The experience would be linked to an assessment and workshops to discuss the experience and generate more knowledge and information (including financing strategy) and adjust the RBF scheme for a possible larger pilot (that could be funded by a subsequent Project or other partners).

Sub-Component 3.3. Strengthen capacity for project implementation and monitoring at all levels. (US$2.5 million)

46. This final sub-component will support the strengthening of project implementation capacity of MoH with attention also paid to the Region and District and sub-district levels as needed. Support will include: (i) addressing technical gaps and building capacity for the day-to-day administration of project activities (monitoring resource use, procurement processing activities, administering withdrawal and disbursement procedures, consolidating the financial management aspects of project implementation, project reporting; as well as coordinating all relevant sector ministries, Government departments, health professional training institutions and associations, civil society organizations and the private sector); and (ii) strengthening the M&E/HMIS capacity and functioning to obtain quality primary level MNCH and nutrition information at district/regional level in the two target regions, as well as at central level. Aside from capacity building and training for entities involved in project implementation (including the district health team, health center management committees and community participation bodies – as needed), the support largely translates into supporting the incremental operating costs for entities involved in project implementation at the central MoH (in the PCU). This will include hiring the necessary staff which will populate the PCU, which on the technical side will include one Coordinator, one Maternal and Child Health Specialist, one Community Development Specialist, and on the fiduciary side, one FM Specialist, one Accountant, one Procurement Specialist, and one Monitoring and Evaluation Specialist.

Annex 3: Implementation Arrangements
GUINEA: PRIMARY HEALTH SERVICES IMPROVEMENT PROJECT

Project Institutional and Implementation Arrangements

1. **The project will be implemented by the MOH**. The responsibilities of the MoH include the national health policy formulation, health services expansion, establishment of the standard norms and operational protocols, regulating the services delivery and ensure the distribution of the staff and resources in the different regions of the country. The central level supports the regions and the districts in system development and mobilizes resources to improve services delivery in the ground.

2. The MoH has a long track record in implementing Bank-financed projects and the implementation arrangements will reflect lessons learned in this regard. Generally, the experience has been that the capacity to manage and coordinate the project (alongside Procurement and FM functions) will have to be created from scratch. In light of the chronic underfunding of the health sector, and the often direct funding of programs by donors, the private sector, and through user fee income, central level capacity to manage health projects is extremely weak in Guinea. Even more so now that the existing Ministry of Health officials have been drawn into the Ebola response process. Accordingly, whilst MoH officials will comprise a steering committee, qualified experts will be hired instead, under the project (component 3), to function within a PCU. The following provides additional details on this.

Project administration mechanisms

3. A steering committee will be created by order of the Minister of Health and will provide strategic direction and monitor the overall progress of the project. It will approve the annual work plans, as well as the annual and quarterly reports. It will be composed of MoH Department Directors and the heads of the Reproductive health and PCIMNE divisions; UNICEF, UNFPA, and WHO will also be part of the committee. The Secretary General of the MoH will be leading the steering committee.

4. The day-to-day management of the project will be the responsibility of a Project Coordination Unit (PCU) that will report directly to the Secretary General. The PCU will; (i) coordinate the project activities; (ii) carry out financial management for project activities under the three components; and (iii) prepare consolidated annual work plans, budgets, M&E report, and the project execution report for submission to the Steering Committee and the Association (IDA).

5. The PCU will be comprised of a technical unit and fiduciary unit, and will be headed by a full time project coordinator. Staff will be recruited with project funds with the necessary qualifications to ensure appropriate fiduciary control and project monitoring and evaluation. The PCU will have one coordinator, and the technical unit will have three full time consultants, namely a Maternal and Child Health Care Specialist, a Community Development Specialist, and an M&E specialist. The fiduciary unit will have three consultants, one accountant, one Financial management specialist, and one procurement specialist. Again, these will be hired by the project.

6. Each directorate in the Ministry of health will play its administrative role regarding the project. Overall implementation responsibilities are summarized in the following table:

	Technical Responsibility	Fiduciary Responsibility
Component 1		
1.1 Commodities and supplies	PCG	PCU
1.2 Expand the number and competencies of nurse assistants	DSF	PCU
Component 2		
2.1 Coverage of indigents	DSC	PCU
2.2 Training and deployment of community health workers	DSC/District teams	PCU
Component 3		
3.1 Supportive supervision	District	PCU
3.2 Evidence Generation and PBF pilot	DES	
3.3 Project implementation and monitoring	PCU	PCU

Financial Management and Disbursement Arrangements

Financial Management Arrangements

7. The Project FM staffing will mainly consist of one FM officer and one qualified accountant who will be competitively recruited. To ensure sustainability within the Ministry, the MoH could consider adding to the FM team civil servant accountant(s) depending on their availability (part time or full time), with adequate accounting background to benefit from a competence transfer.

Budgeting arrangements

5. The PCU will prepare annual budgets based on agreed annual work programs and annual procurement plans. The budget will be adopted by the Steering Committee before the beginning of the year and its execution will be monitored through the project accounting software on a quarterly basis. The budgeting process and monitoring will be clearly defined in the Administrative and Accounting Manual of Procedures. Annual draft budgets will be submitted to the Bank's non-objection before adoption and implementation no later than November 30 every year.

Accounting arrangements

6. The current accounting standards in use in Guinea for ongoing Bank-financed projects will be applicable. A computerized and integrated financial management system will be installed and customized to maintain and support Project accounts with appropriate records and procedures to track commitments and to safeguard assets and generate reporting information. MoH will need to

recruit the accounting staff at the PCU and elaborate accounting procedures as part of the FM procedures manual.

Internal control and internal auditing arrangements

7. The Administrative and Accounting Procedures that will be part of the project procedures manual will provide a clear description of the approval and authorization processes in respect of the rule of segregation of duties. Said manual will thus ensure that adequate internal controls are in place for the preparation, approval and recording of transactions and will be subject to updates as needed following the same approval process. To maintain a sound control environment, the project team is expected to follow the control mechanisms that will be described in the manual of procedures.

Financial reporting arrangements

8. The PCU will prepare quarterly un-audited Interim Financial Report (IFRs) for the project in form and content satisfactory to the Bank. It will include: (i) Statement of Sources of Funds and Project Revenues and Utilization of funds; (ii) Statement of Expenditures classified by project components/activities (economic classification) showing comparisons with budgets for the reporting period and cumulative for the project life; and (iii) Note to the IFR providing reasons for the variances and any information on the statement of sources of funds and project revenues and utilization of funds. These IFRs will be submitted to the Bank within 45 days after the end of the quarter to which they relate. The format of the IFR will be furnished in the FM part of the procedures manual. The PCU will also prepare Project Financial Statements (PFS) in compliance with International Accounting Standards (IAS) and World Bank requirements. These Financial Statements[26] will comprise:

(a) A balance sheet;
(b) A Statement of Sources and Uses of Funds;
(c) A statement of Commitments;
(d) The Accounting Policies adopted with appropriates notes and disclosures; and
(e) A Management Assertion that Program funds have been expended for the intended purposes as specified in the relevant credit agreement.

Flow of funds and Disbursement arrangements

9. ***Flow of funds:*** A Designated account (DA) and its associated Transaction Account (TA) will be opened in a commercial bank and maintained respectively in USD and GNF (Guinea National currency) on terms and conditions acceptable to the Bank and managed according to the disbursement procedures described in the Administrative, Accounting and Financial procedures and the Disbursement Letter. The DA will be used for all eligible payments as indicated in the specific terms and conditions of the Financing Agreement. Funds will therefore flow from the DA to the TA and from the TA to Suppliers, contractors and other service providers. All expenses, including taxes, will be financed at 100 percent by the project.

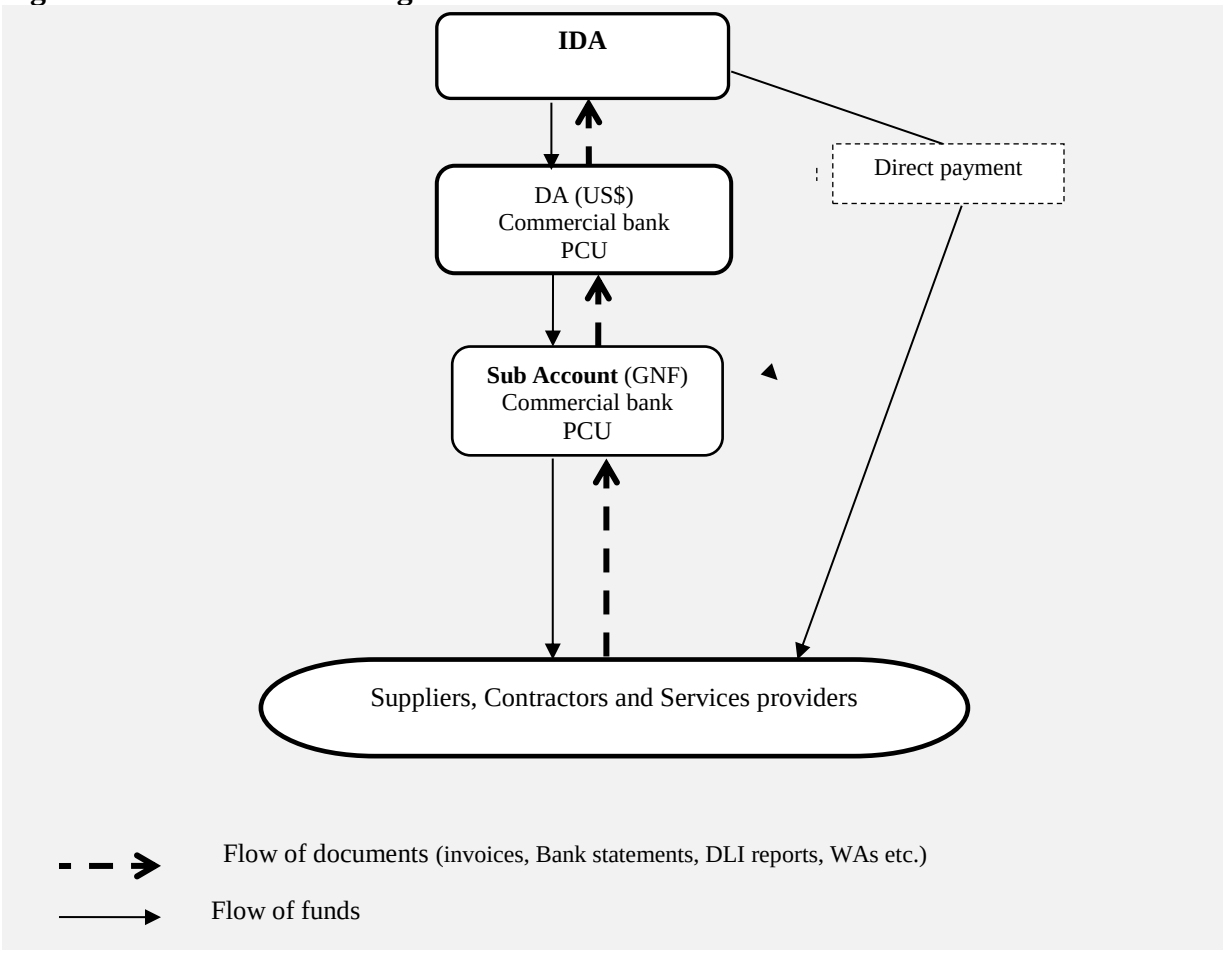
[26] It should be noted that the project financial statements should be all inclusive and cover all sources and uses of funds and not only those provided through IDA funding. It thus reflects all program activities, financing, and expenditures, including funds from other development partners.

10. ***Disbursement methods:*** The following disbursement methods may be used under the project: reimbursement, advance, direct payment and special commitment as specified in the Disbursement Letter (DL) and in accordance with the World Bank Disbursement Guidelines for Projects, dated May 1, 2006. Disbursements would be transactions-based whereby withdrawal applications will be supported with Statement of Expenditures (SOE).

11. An initial advance up to the ceiling of the Designated Account (DA) and representing 4 months forecasted project expenditures will be made into the Designated Account and subsequent disbursements will be made on a monthly basis against submission of Statement of expenditures (SOE) and bank statements or records as specified in the Disbursement Letter. The DA and its GNF associated account will be used to pay for most eligible expenditures except for those exceeding 20 percent of the DA ceiling. Such payments should be made through the direct payment method or a special commitment letter issued by the Association.

12. All replenishments or reimbursement applications will be fully documented. Documentation will be retained at the Coordination units for review by Bank staff members and external auditors. The DL will provide details of the disbursement methods, required documentation, DA ceiling and minimum application size. The DL was discussed and agreed upon during negotiations of the Financing Agreement.

Figure 3.1: Flow of funds diagrams



Auditing arrangements

13. The Financing Agreement will require the submission of Audited Financial Statements for Projects to IDA within six months after the end of each fiscal year. The audit reports should reflect all the activities of the project. External auditors with qualification and experience satisfactory to the World Bank will be recruited to conduct annual audits of the project financial statement (PFS). Appropriate terms of reference for the external auditors will be provided to the project team. The external auditors will prepare a Management Letter giving observations and comments, providing recommendations for improvements in accounting records, systems, controls and compliance with financial covenants in the Financial Agreement.

Table 3.1: Auditing arrangements

Audit Report	Entity	Due Date
Annual audited financial statements and Management Letter (including reconciliation of the Designated Accounts with appropriate notes and disclosures	PCU/MoH	June 30 N+1

Action Plan

14. The following actions, need to be taken in order to enhance the financial management arrangements for the project:

Table 3.2: Action plan

Action	**Responsible body**	**Completion**
Elaborate FM procedures for the Project including detailed asset management procedures as part of the Project implementation manual	MoH	No later than two months after effectiveness
Recruit an FM officer to take responsibility over the FM activities under ToR acceptable to the Bank	MoH	No later than one month after effectiveness
Recruit an accountant	MoH	No later than one month after effectiveness
Set up the accounting software	MoH	No later than two months after effectiveness
Recruit an external auditor with ToRs acceptable to the Bank (including fraud & corruption)	PCU/MoH	Within Five (05) months after effectiveness

Implementation Support Plan

15. Based on the outcome of the FM risk assessment, the following implementation support plan is proposed based on the project FM residual rating of **substantial**. The objective of the implementation support plan is to ensure the ministry of fisheries in each country maintains a satisfactory financial management system throughout the project's life.

Table 3.3: Implementation Support Plan

FM Activity	Frequency
Desk reviews	
Interim financial reports review	Quarterly
Audit report review of the program	Quarterly RBA
Review of other relevant information such as interim internal control systems reports.	Continuous as they become available
Review of overall operation of the FM system	Bi-annual
Monitoring of actions taken on issues highlighted in audit reports, auditors' management letters, internal audit and other reports	As needed
Transaction reviews (if needed)	As needed
FM training sessions	During implementation and as and when needed.

Financial Covenants

a) A financial management system including records, accounts and preparation of related financial statements shall be maintained in accordance with accounting standards acceptable to the Bank.
b) The Financial Statements will be audited in accordance with international auditing standards. The Audited Financial Statements for each period shall be furnished to the Association not later than five (5) months after the end of the project fiscal year. The Borrower shall therefore recruit an external auditor not later than five (5) months of effectiveness
c) The Borrower shall prepare and furnish to the Association not later than 45 days after the end of each calendar quarter, interim un-audited financial reports for the Project, in form and substance satisfactory to the Association
d) The Borrower will be compliant with all the rules and procedures required for withdrawals from the Designated Accounts of the project

Procurement

16. **General:** Procurement for the proposed project will be carried out in accordance with the World Bank's "Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers", dated January 2011, updated on July 2014; and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011, updated on July 2014, and the provisions stipulated in the legal Agreement.

17. **Procurement Documents:** Procurement would be carried out using the Bank's Standard Bidding Documents (SBD) for all International Competitive Bidding (ICB) for goods and works and for Standard Request for Proposal (RFP) for the selection of consultants through competitive procedures. The Recipient will develop standard documents based on the Bank's SBDs for National Competitive Bidding (NCB) for goods and works and the Bank's RFP for the selection of consultants through methods other than Quality and Cost Based Selection (QCBS), with

modifications that will be submitted to the IDA for prior approval. The different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frame are agreed between the Recipient and the Bank in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

18. **Advertising procedures**: General Procurement Notice, Specific Procurement Notices, Requests for Expression of Interest and results of the evaluation and contracts award should be published in accordance with advertising provisions in the following guidelines: "*Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits and Grants*" dated January 2011, updated on July 2014, and "*Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers*" dated January 2011, updated on July 2014. The borrower will keep a list of received responses from potential bidders interested in the contracts.

19. For ICB and request for proposals that involve international consultants, the contract awards shall be published in the United Nations Development Business (UNDB) online within two weeks of receiving IDA's "no objection" to the recommendation of contract award. For Goods, the information to publish shall specify: (a) name of each bidder who submitted a bid; (b) bid prices as read out at bid opening; (c) name and evaluated prices of each bid that was evaluated; (d) name of bidders whose bids were rejected and the reasons for their rejection; and (e) name of the winning bidder, and the price it offered, as well as the duration and summary scope of the contract awarded. For Consultants, the following information must be published: (a) names of all consultants who submitted proposals; (b) technical points assigned to each consultant; (c) evaluated prices of each consultant; (d) final point ranking of the consultants; and (e) name of the winning consultant and the price, duration, and summary scope of the contract. The same information will be sent to all consultants who submitted proposals. The other contracts should be published in national gazette periodically (at least, quarterly) and in the format of a summarized table covering the previous period with the following information: (a) name of the consultant to whom the contract was awarded; (b) the price; (c) duration; and (d) scope of the contract.

National Competitive Bidding

20. For National Competition Bidding (NCB), the borrower should ensure that the following special requirements are taken into account: (i) four weeks will be provided for preparation and submission of bids, after the issuance of the Invitation for Bids or availability of the bidding documents, whichever is later; (ii) Bidding documents acceptable to the Bank shall be used; (iii) bids will be advertised in national newspapers with wide circulation; (iv) bids will be presented and submitted only in one internal envelope (no system with two envelopes will be used); (v) bid evaluation, bidder qualifications criteria, and the contract award criteria will be clearly specified in the bidding documents; (vi) no preference margin will be granted to domestic bidders; (vii) eligible firms, including foreign firms, will not be excluded from the competition; (viii) the procedures will include the publication of the results of evaluation and of the award of the contract, and provisions for bidders to protest; (ix) procurement audit will be included in the terms of reference of financial audits of the project; (x) if the procurement Code doesn't apply to small contracts, the procedures will require that for such contracts, a competitive method be used

(reference for example to the shopping method in instance); and (xi) in accordance with the Procurement Guidelines, each bidding document and contract shall include provisions stating the Bank's policy to sanction firms or individuals found to have engaged in fraud and corruption as set forth in the Procurement Guidelines.

21. **Fraud and Corruption.** All procurement entities as well as bidders and service providers (i.e. suppliers, service providers, and consultants) shall observe the highest standard of ethics during the procurement and execution of contracts financed under the Project in accordance with paragraphs 1.16 and 1.17 (Fraud and Corruption) of the Procurement Guidelines and paragraph 1.23 and 1.24 (Fraud and Corruption) of the Consultants Guidelines, and the *"Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants"*, dated October 15, 2006 and revised in January 2011, in addition to the relevant Articles of the Sierra Leone Public Procurement Act 2004.

Procurement methods

22. **Procurement of Works:** Contracts of works estimated to cost US$5,000,000 equivalent or more per contract shall be procured through ICB. Contracts estimated to cost less than US$5,000,000 equivalent may be procured through NCB. Contract estimated to cost less than US$100,000 equivalent per contract may be procured through shopping procedures. For shopping, contracts will be awarded following evaluation of bids received in writing on the basis of written solicitation issued to several qualified suppliers (at least three). The award would be made to the supplier with the lowest price, only after comparing a minimum of three quotations open at the same time, provided he has the experience and resources to execute the contract successfully. For shopping, the project procurement officer will keep a register of suppliers updated at least every six month.

23. **Procurement of Goods:** Contracts of goods estimated to cost at least US$500,000 per contract and would be procured through ICB. Contracts estimated to cost less than US$500,000 equivalent may be procured through NCB. Goods estimated to cost less than US$50,000 equivalent per contract may be procured through shopping procedures. For shopping, the condition of contract award shall be the same process as described above for procurement of works.

24. **Procurement of non-consulting services:** Procurement of non-consulting services, such as services for providing logistic support, car rental for field visits, transport services and maintenance of office equipment will follow procurement procedures similar to those stipulated for the procurement of goods depending on their nature.

25. **Selection of Consultants:** Consultant firms will be selected through the following methods: (a) Quality-and Cost-Based Selection QCBS; (b) selection based on the Consultant's Qualification (CQS) for contracts which amounts are less than US$100,000 equivalent; (c) Least Cost Selection (LCS) for standard tasks such as insurances and financial and technical audits costing less than US$200,000; and (d) Single Source Selection, with prior agreement of IDA, for services in accordance with the paragraphs 3.10 to 3.12 of Consultant Guidelines; Individual Consultant (IC) will be hired in accordance with paragraph 5.1 to 5.4 of Bank Guidelines.

26. Short lists of consultants for services estimated to cost less than US$200,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines, if a sufficient number of qualified firms are available. However, if foreign firms express interest, they would not be excluded from consideration.

27. **Workshops, Seminars and Conferences.** Training activities would comprise workshops and training, based on individual needs, as well as group requirements, on-the-job training, and hiring consultants for developing training materials and conducting training. Selection of consultants for training services follows the requirements for selection of consultants above. All training and workshop activities (other than consulting services) would be carried out on the basis of approved Annual Work Plans / Training Plans that would identify the general framework of training activities for the year, including: (i) the type of training or workshop; (ii) the personnel to be trained; (iii) the institutions which would conduct the training and reason for selection of this particular institution; (iv) the justification for the training, how it would lead to effective performance and implementation of the project and or sector; (v) the duration of the proposed training; and (vi) the cost estimate of the training. Report by the trainee(s), including completion certificate/diploma upon completion of training, shall be provided to the Project Coordinator and will be kept as parts of the records, and will be shared with the Bank if required.

28. **Operating Costs.** Operating Costs are incremental expenses arising under the Project and based on Annual Work Plans and Budgets approved by the Bank pursuant to the Financing Agreements. They are incurred based on eligible expenses as defined in the Financing Agreement and cannot include salaries of the Borrower's civil and public servants. The procedures for managing these expenditures will be governed by the Recipient's own administrative procedures, acceptable to the Bank.

Assessment of the capacity of the agencies to implement procurement

29. Bank conducted an assessment of the procurement capacity of the Ministry of Health (MOH) on February 2015 in accordance with Bank's procurement Risk Assessment and Management System. The objective of the assessment was to determine whether the MoH and the implementing agency has acceptable procurement capacity and arrangements in place that satisfy the Bank's Operation Policy and Procurement Procedures. The assessment reviewed the organizational structure for implementing the project taking into account the interaction between staff responsible for procurement and other relevant technical units of the entities that will be involved of project activities. The assessment identified that, the Ministry of Health has a long experience in the implementation of projects financed by IDA, the last of which closed in December 2013. However, the implementation Unit that managed the last project funded by IDA is no longer in place. It is planned to create a new coordination unit for the management of this project. It has identified a number of critical areas which have potential risk.

30. The potential risks identified are: (i) a large number of actors; (ii) the need to put in place a new coordination Unit which comprises one Procurement officer who is familiar with Bank procurement procedures; and (iii) the need to elaborate an implementation manual which includes the procurement procedures for the project.

31. Based on the assessment of the system in place, the Overall project risk for procurement is rated **High.** It may be lowered to Substantial once the mitigations measures are implemented. Detailed procurement risk mitigation measures are presented in Annex 3 of the PAD.

32. **Mitigation measures:** In order for these bodies to implement Bank funded activities in accordance with the Bank guidelines on procurement, the assessment mission recommended the following: (i) the recruitment, by the Ministry of Health (MOH), of one Procurement Specialist who is familiar with Bank procurement procedures; (ii) elaboration of an implementation manual which includes the procurement procedures for the project; and (iii) putting in place a good filing system.

33. **Frequency of procurement reviews and supervision**: Bank's prior and post reviews will be carried out on the basis of thresholds indicated in the following table. The IDA will conduct six-monthly supervision missions and annual Post Procurement Reviews (PPR); with the ratio of post review at least one to five contracts. The IDA may also conduct an Independent Procurement Review at any time until two years after the closing date of the project.

Country Overall Procurement Risk Assessment: High

Recommended Action	**Due Date**
Recruitment by the Ministry of Health (MOH), of one procurement specialist on Terms of Reference acceptable to IDA	Before effectiveness
Elaborate an implementation manual which includes procurement procedures	Before effectiveness

Table 3.3: Procurement and Selection Review Thresholds

Expenditure Category	**Contract Value (Threshold)**	**Procurement Method**	**Contract Subject to Prior Review**
	US$		
1. Works	≥5,000,000	ICB	All
	<5,000,000	NCB	First contract
	<100,000	Shopping	The first contract
	No threshold	Direct contracting	All
2. Goods	≥500,000	ICB	All
	<500,000	NCB	The First contract
	<50,000	Shopping	The first contract
	No threshold	Direct contracting	All
3. Consultants Firms	≥200,000	QCBS; QBS; LCS; FBS	All contracts
	<200,000	QCBS; QBS; LCS; FBS,	The first contract
Consultants Firms	< 100 000	CQ	Two contracts

Individuals	≥100,000	EOI	All contracts
	<100,000	comparison of 3 CVs	The first contract (for others missions); Prior review for PCU staff
(Selection Firms & Individuals	No threshold	Single Source	All
All Term of reference regardless of the value of the contract are subject to prior review			

33. **Procurement Plan**: For each contract, the procurement plan will define the appropriate procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, the prior review requirements, and the time frame. The procurement plan was reviewed during project appraisal and was formally confirmed during negotiations. The procurement plan will be updated at least annually, or as required, to reflect the actual project implementation needs and capacity improvements. All procurement activities will be carried out in accordance with approved original or updated procurement plans. All procurement plans should be published on Bank website according to the Guidelines.

Environmental and Social (including safeguards)

Environment (including Safeguards)

34. The project will mostly fund consulting, communication costs, training services, as well as fund drugs, medical supplies, and some equipment. The project will not support any investment (including civil works) that is likely to harm the environment. However, since the project activities are expected to increase the use of health services, as a result, the project is likely to increase the generation of biomedical waste. Consequently the project is classified as category B.

35. Apart from the National Medical Waste Management Plan (NSMWP), which is currently being reviewed and updated, and which will serve to prevent the project environmental and social risks, no other specific instrument is required. The Plan will be approved on, then disclosed both in-country and the Bank Infoshop not later than a month after the Board approval, because the project is being processed under the provisions of OP 10.00 paragraphs 11 and 12 a.

Social Assessment

36. The project will not finance any activities necessitating involuntary land acquisition resulting in (i) involuntary resettlement of people and/or loss of (or access to) assets, means of livelihoods or resources and (ii) the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.

37. The project is expected to have a positive social impact on improving utilization of health care services by the poorest households. The pro-poor focus of the project will be achieved in two ways: (i) project interventions target vulnerable groups such as rural populations and

indigents, and in particular, women and children who face a disproportionately higher risk of mortality and morbidity due to avertable causes; and (ii) the project aims to enhance the delivery of specific MNCH services, at health center, health post and community level, for which the coverage among the poor is disproportionately low. The combination of supply and demand side interventions, and the strengthening of overall management capacity is expected to increase utilization of health services for the poor.

38. The project will also have a positive impact on gender in Guinea. Given the project's focus on improving MCHN, the impact on women's health is an essential component of the intervention. The project is expected to have a positive impact not only on pregnant women but on all women, as services will be strengthened around an identified package of interventions that are essential for the general population.

39. In terms of ensuring community engagement and buy-in for the activities, the project will put emphasis on the importance of training and engaging community lay workers around community needs and concerns. The community will benefit from the extension of services delivered to them through the community lay workers, and from activities that will rebuild the trust of the community into the public health system, following neglect and further dilapidation since Ebla.

Monitoring & Evaluation

40. A comprehensive description of the Project's results framework and the arrangements for monitoring and evaluation (M&E) are described in Annexes 1 (Results Framework and Monitoring) and 3 (Implementation Arrangements), respectively. The results framework will be tracked and a mid-term review will provide the opportunity to assess progress and make appropriate mid-course corrections. The PCU will be responsible for monitoring the agreed PDO KPIs, and a set of key intermediate outcome indicators, during the life of the Project.

41. A decision was reached with the government that the pre-Ebola 2012 baseline data would not be used to guide progress on targets in the results framework (for the PDO indicators as well as the one IOI indicator on stock outs). In addition to reflecting a pre-Ebola context, the 2012 data likely reflected support provided by other donors at the time, thus making it highly unreliable to use as the baseline. Rather than risk an early restructuring, it was decided to leave these indicator fields blank, and collect new baseline data in the first quarter of project implementation (coordinated by the M&E specialist hired into the PCU).

42. The M&E Consultant in the PCU will carry out an assessment of all baseline indicators of the results framework in the first quarter of the project, to understand and better capture the post-Ebola situation and review the targets and M&E capacity accordingly. The current baseline data and targets are based on 2012 data.

43. The M&E Consultant in the PCU (hired specifically under this project) will work with his counterparts at the central, regional, and district levels to further strengthen the M&E system and ensure that it provides accurate and timely data that can be used by the MoH for analysis and

decision making. Component 3 will reinforce existing capacity in this area to provide additional support towards M&E as needed.

44. The National Health Management Information System (HMIS) will be primarily used to collect monitoring data, with additional support provided by the Project to integrate primary level information. The HMIS system in Guinea is relatively sophisticated where prior to the Ebola crisis, the monitoring of health center activities and finances was undertaken every six months, thus providing facility based information to the districts regularly.

45. The project will verify that the poorest 10% within communities in Guinea, to be reached under component 2.1, actually receive fee exemption, rather than other populations. Verification of indigents exempted will be carried out as part of the quality checklist supervision visits, combined with independent spot checks, by the District Health Team. The survey on satisfaction of indigents with the exemption mechanisms (tracked by an indicator), coordinated and organized by the M&E specialist in the PCU, will provide additional information.

46. During the Project implementation period, a new Demographic and Health Survey (DHS) will be undertaken, likely around 2017, just before the mid-term review. The last DHS was carried out in 2012. Results from the DHS and other population-based surveys will be used to discuss existing HMIS data reporting and can help serve to make adjustments as needed.

47. Finally, as agreed during the PCN meeting, the proposed project should be considered an important opportunity to learn from, and could benefit from analytical work, including gender, social and anthropological studies that accompany the interventions proposed under the project. Depending on financing, such studies are expected to be carried out, and contribute to the evidence base for evaluation, with funding sought from the Japanese Government and the Global Financing Facility (GFF).

Role of Partners

48. Multilateral and bilateral partners in the health sector have been consulted throughout the process of developing the project by the government to ensure close coordination, collaboration and complementarity. Given that the WB project will focus on community and health center level, additional donor funding would be needed to strengthen other parts of the health system in the target regions, and with it the continuum of care. Furthermore, because the project will focus on 2 out of 8 regions, other regions will have to be covered by partner agencies to ensure progress beyond the WB target regions. Finally, donor funding can be used to complement limited funding provided under the WB project, strengthening and reinforcing the available funding to implement the planned interventions in target areas. The team has carried out discussions with all partners to ensure that partner activity is complementary to the proposed interventions. The following provides some detail on how the Bank intervention fits into the overall picture of partner support on MCHN in the post-Ebola phase.

Table 3.4: The role and complementarity of Partner Activity (provisional)

PARTNER	Time Span	Areas of Support	Target Regions	How does it complement WB project?
USAID	2015-2018	Strengthening District and Regional Hospitals	Kankan, **Faranah, Labe**	USAID focuses on district and regional hospital level
GIZ	2015-2018	Strengthening Supply Chain, and capacity in District and Regional Directorates	Mamou, **Faranah and Labe**	Complements limited budget for Pharmaceuticals under WB project, further strengthens District and regional Capacity
EU and AFD	2015-2018	Improve supply of drugs, equipment and infrastructure, capacity of health center management committees, District teams and regional directorate of health. At central level finance drugs warehouse (PCG)	Nzerekore Region	Addresses health needs in a region not covered by Bank
WHO	2014-2016	Support Malaria, Poliomyelitis and epidemics	Nationwide	Could enhance some Bank project interventions
GLOBAL FUND	2011-2016	For HIV/TB, Malaria and Systems Strengthening (drugs mainly)	Nationwide	Could enhance some Bank Project interventions
UNICEF		For Reproductive health, nutrition, child health and water and sanitation	Nationwide Focus	Could enhance some Bank Project interventions
UNFPA		Support on primary health care strengthening Reproductive Health	5 districts in Manolo River region Nzerekore, **Labe**, Kindia, Kankan	Can complement Bank project region (in Labe), but largely will cover regions not covered by Bank
PSI (Global Fund and KFW)	2015-2018	Tuberculosis (diagnostic and treatment) and Malaria (bednets) Social marketing on reproductive health and family planning	Nationwide Nationwide	Can complement Bank project region, but largely will cover regions not covered by Bank

Annex 4: Implementation Support Plan

GUINEA: PRIMARY HEALTH SERVICES IMPROVEMENT PROJECT

Strategy and Approach for Implementation Support

1. The Implementation Support Plan (ISP) describes how the Bank will support the implementation of the risk mitigation measures (identified in the SORT) and provide the technical advice necessary to facilitate achievement of the PDO, in a flexible and efficient manner. The ISP also identifies the minimum requirements needed to meet the Bank's fiduciary obligations.

2. Implementation support is a core element of the proposed Guinea Community Health Services Improvement Project, and will involve continuous World Bank engagement in partnering with the Government on two dimensions:

> (a) sectoral and technical aspects, including: (i) strengthening performance management; (ii) improving equity; (iii) improving administrative efficiency; and (iv) reducing fraud and error.
>
> (b) continuous fiduciary oversight both for regular fiduciary (financial management) supervision, procurement, functioning of the ACV, etc.

3. The project will require intensive supervision and support, given: (a) the preoccupation of the government in fighting and coordinating the Ebola response effort; (b) the geographic spread of the proposed operation and (c) the need for support and capacity building to implement the various components some of which are new. The project will be implemented at three levels: the central MOH, the districts and at the health center and community level. A budget of US$150,000 would be required for the Bank team to thoroughly supervise the project during the first 12 months of implementation, with standard supervision funding according to established coefficients for subsequent years.

4. Bank supervision will leverage the supervision carried out by the MoH and the project on a regular basis. The MoH will have teams visiting each districts several times per year, and will prepare action-oriented supervision reports that will be reviewed by the Bank during their bi-annual supervision missions, and through desk reviews. This system will allow the MoH to monitor and assess project performance on an ongoing basis (e.g. in order to distinguish between the better and lesser-performing districts, and provide more assistance to the latter as needed). In order to facilitate this regular internal monitoring process, sufficient funds have been included in the project management budget.

5. Some of the skills required by the Bank team for supervision will be needed on a regular basis while others will be required periodically. It is therefore proposed to establish a core supervision group that will emphasize financial, procurement, and operational basic needs, complemented by technical specialists on HRH, Pharmaceuticals and Health Financing, and those covering monitoring and evaluation.

6. While regular Bank supervision will take place at least twice a year, this will be leveraged by regular visits by the country-based Bank health sector, procurement and financial management specialists who take advantage of their field presence to verify progress and provide ongoing assistance to the client.

7. A much more intensive than usual supervision program, should be carried out during the first year of the project to put in place a sound institutional base and properly begin interventions to be undertaken by the operation. The Bank supervision team includes the following members: (i) the two Task Team Leaders; (ii) a monitoring and evaluation specialist whose experience includes health sector evaluations; (iii) a HRH, Pharmaceutical and Health Financing Specialist (iv) a financial management specialist who will review adherence to Bank procedures with regard to fiduciary responsibilities; (v) procurement specialist; and (vi) an environmental and social specialists.

8. In addition to Bank supervision, an external technical agency will be required to support the government develop and implement the training elements of the project, in particularly setting up the training of trainers and district level training program for the ATS and the CHWs. This will require support from an agency such as MSH, KITS or WHO who possess technical expertise in this area. Neither the Bank nor the government have a comparative advantage in setting up the required technical aspects of this intervention. A Trust Fund is sought to support such TA.

9. ***Financial management.*** FM supervisions will be conducted over the project's lifetime. The project will be supervised on a risk-based approach. Supervision will focus on the status of financial management system to verify whether the system continues to operate well throughout the project's lifetime and to ensure that expenditures incurred by the project remain eligible for IDA funding. It will comprise inter alia, the review of audit reports and IFRs and advice to task team on all FM issues.

10. Based on the current risk assessment, which is substantial, we envisage at least two supervision missions per year. The ISR will include a FM rating of the project. An implementation support mission will be carried before effectiveness to ensure the project readiness. To the extent possible, mixed on-site supervision missions will be undertaken with procurement monitoring and evaluation and disbursement colleagues and will cover the activities implemented by the MoH as well as those contracted to MOH. The supervision intensity will be adjusted over time taking into account the project FM performance and FM risk level.

11. ***Procurement.*** Implementation support will include: (i) provision of training to the PCU fiduciary unit staff as needed; (ii) review of procurement documents and provision of timely feedback to PCU; (iii) provision of guidance on the Bank's Procurement Guidelines to the PCU, (iv) monitoring of procurement progress against the detailed Procurement Plan; and (v) monitoring that implementation of contracts is compliant with the World Bank's fiduciary guidelines as well as with contract obligations.

12. ***Environmental and Social Safeguards.*** Implementation support will include: (i) guidance on the implementation of the Environmental and Social Assessment; (ii) supervision of the implementation of the prepared Process Framework and provision of training and guidance to the PCU team; and (iii) third party monitoring assessing compliance with safeguards as a specific, separate component will be included in the M&E system.

13. ***Coordination with other Development Partners***. Implementation support will include close coordination with other development partners (especially UNFPA, WHO, EU, USAID, France/MUSKOKA), research institutions and international, national and local NGOs engaged in the health sector in Guinea.

Implementation Support Plan

14. The project will require substantive technical support due to the technical nature of the activities to be financed and an environment of very low capacity. Formal implementation support missions and field visits are expected to be carried out roughly every six months. Detailed inputs from the Bank team and partners are outlined below:

15. **Technical inputs:** Technical inputs will be provided by members of the above mentioned supervision team, and additional Bank staff who have expertise in HRH, Pharmaceuticals, Health Financing, Monitoring & Evaluation drawing from the HNP and other Global Practices as required. The task team will also seek additional highly-specialized technical inputs from technical partners, in particular UNFPA with whom close coordination and collaboration was established during project preparation. Furthermore, as mentioned above, a technical TA agency, such as KITS, WHO, or similar will have to provide technical support to the government in developing the envisioned district level training interventions. For the latter, funding is sought from various Trust Fund Sources.

16. **Fiduciary requirements and inputs:** Training will be provided by the Bank's financial management specialist and procurement specialist before the commencement of project implementation. The task team will further provide support to the PCU as needed to improve fiduciary efficiency. Formal supervision of financial management will be carried out semi-annually, while procurement supervision will be carried out on a timely basis as required by the client.

17. **Safeguards:** Inputs from an environment specialist and a social specialist will be provided, despite the project's limited expected social and environmental impacts. Capacity building will be required for environment monitoring and reporting. Field visits will be conducted on a semi-annual basis. The social and environmental specialists are based in the sub-region.

18. **Operational:** The two TTLs will provide timely supervision of all operational aspects, as well as ensure coordination with the client and among World Bank team members. Both TTLs will lead two formal field supervisions a year and conduct additional missions as needed to resolve operational issues. Having one of the TTLs based in Abidjan (with close connection to Conakry) will greatly assist in this regard. A mid-term review will be conducted 30 months after

effectiveness of the project by the Bank team to assess the progress of the project and potentially to adjust the project design.

19. **The main focus for support towards implementation during various periods of project implementation is outlined in Table 4.1 below.** During the first twelve months, the focus is to finalize the design and support the initial roll out of the key interventions. This includes the district level training component (for both ATS and CHWs), the pharmaceutical component, the coverage of indigents and the supportive supervision at district level. Partners would play a key role, particularly on the development of the training component and the identification and verification of indigents. A second focus in the first 12 months is to provide operational support to ensure the smooth start-up of project implementation, including building relevant procurement and financial management capacity within the implementing agencies. In the second and subsequent years of the project, the main focus would be ongoing technical support for key areas as well as fiduciary, safeguards and project management support. In addition to that, in year two, the RBF pre-pilot will be initiated, with support from one of the Bank's RBF specialists.

Table 4.1 Implementation Support Plan (first 48 months)

Time	Focus	Skills Needed	Staff weeks estimate	# trips needed	Resource Estimate
Dialogue with Client & Supervision	TTLs (2)	Policy Dialogue and Supervision	12 (6x2)	6	80,000
	Procurement training (two sessions)	Procurement Specialist	2	0	5,000
	Technical and procurement review of the bidding documents	Procurement Specialist Health Specialist	2	0	5,000
	FM training and supervision	FM specialist	2	0	5,000
	Environmental & Safeguards training and supervision	Technical specialist Environmental specialist	1	1	3,000
	Setting up of Training Program (HRH)	Human Resources for Health Specialist	4	2	25,000
	Support to coverage of indigents	Health Financing Specialist	3	2	10,000
	Pharmaceuticals	Pharmaceutical Specialist	2	1	15,000
	District Supervision Arrangement	Health Specialist	2	2	6,000
12-24 months	Project supervision coordination & technical and sectorTeam leadership	TTL and Sector Specialists	12 (6 x2)	4 (2x2)	80,000
	Financial management disbursement and reporting	FM specialist Disbursement specialist	4 2	0	5,000
	Environmental supervision	Environmental Specialist	1	1	5,000
	Technical supervision	HRH, Pharma Specialist, Health Finance Specialist	6	6	50,000
	RBF pre-pilot development	RBF Specialist	2	2	25,000
	Procurement Review	Procurement Specialist	2	0	10,000
24-48 months	Same as in year two (see above)				

Annex 5: Economic and Financial Analysis

GUINEA: PRIMARY HEALTH SERVICES IMPROVEMENT PROJECT

1. The economic analysis of the proposed health project will (i) provide an overview of the macro-fiscal and health financing context of the country, (ii) analyze the economic rationale for investing in the health sector in Guinea, and (iii) investigate the costs and benefits through a Cost-Benefit Analysis (CBA).

2. The expected economic benefits of investing into the health sector in Guinea are noticeably large. The extension of the Ebola crisis has occurred because of the weak health system, disrupting livelihoods and businesses and resulting in much lower-than-projected macro-level economic performance: from 4.5 percent to 0.4 percent of GDP in 2014 (see next section). Investments into the health sector are thus absolutely critical in order to reestablish trust in the economy and guide Guinea towards recovery.

3. The benefits of investing in maternal and child health care vis-a-vis other services in Guinea are particularly large. Maternal mortality remains very high in the country, 650 per 100,000 births. Child mortality also ranks among the worst in the World: 100.7 per 1000 (under 5) and this rate is even higher in the two targets districts. These outcomes are usually linked to incapacity of the health system to deliver basic interventions such as pre-natal visits, assisted deliveries, vaccination and insecticide treated bed nets (ITN) and nutrition services. In rural and remote areas the supply of these services are even more limited, resulting in worse health outcomes for women and children in these areas.

4. The proposed interventions are to be provided at community and primary care level, at lower cost and high impact. Most of the determinants that affect maternal and child health complications can be addressed at these levels. These interventions are intended to prevent complications at community level, better inform households and bring about behavioral change, better equip health posts and health centers, and maximize the use of existing resources, such as community health workers and nursing assistants for improved delivery of services. The interventions will contribute to improved health equity by improved uptake and provision of maternal and child health services in districts where needs are greatest.

Macro-fiscal and Health Financing Context

5. Among the poorest countries in West Africa, Guinea had a population of 12 million and estimated per capita income of less than US$600 in 2013. The country has returned to constitutional order and macroeconomic stability after 2010, but its recent economic growth has not matched that experienced by neighboring countries, despite several economic reforms introduced and its completion point for the Heavily Indebted Poor Countries (HIPC) Initiative in 2012. Despite rich metal endowments and strong hydro-power potential, the absence of infrastructure investment and an extremely difficult business climate prevented the development of a competitive private sector and the reduction of poverty, which increased by 6 percentage points over the last ten years, from 49.2 percent to 55.2 percent.

6. Guinea was the first country to be affected by the Ebola virus and, despite the swift reaction of authorities, the epidemic spread rapidly in some border areas. In February 2014, a strain of the Ebola virus disease (EVD) appeared in the country. Several hundred cases (more than 750 by mid-September) had been reported, including close to 500 deaths. In early September 2014, the government announced a new two-month $70 million accelerated health emergency plan aiming to turn the current rising tide and drastically reduce the risk of contamination of the EVD.

7. The immediate economic effect of the Ebola outbreak in Guinea has been a pronounced economic slowdown in 2014. Although GDP growth was initially revised downwards to 2.4%, the most recent estimates considered that GDP expansion would be practical nil to around 0.4 % (IMF, 2015). This was due to the fact that economic activity was seriously hampered by displacements of population and the related farm labor shortage, a decline in in the number of visitors, and a slowdown in foreign investments. The sectors most affected were agriculture, services (particularly in the hotel sector), transport and trade. By contrast, mining operations have remained steady, though facing higher transport and insurance costs. Poverty rates are expected to have increased, particularly among vulnerable groups on the informal sector and temporary workers in services.

8. The effects of the Ebola epidemic may maintain the economy stagnant in 2015. It seems likely that it will take much of 2015 for the disease to be eradicated. Further economic disruption, including from second-round effects of the epidemic such as closures and layoffs are expected and production and investment would be hindered by limited labor supply and mobility, investors' higher risk-aversion and the downward trend in international commodity prices (IMF, 2015). As result of these expected economic forces, 2015 real GDP is now expected to contract by 0.3 percent, reflecting a broad-based deterioration in conditions in manufacturing, construction, commerce, transport, and a further weakening in agricultural production (IMF, 2015). Food security is likely to be a critical issue for Guinea during the year to come, particularly during the 2015 lean season, although the consequences can be mitigated if the EVD is eradicated. Over the medium term, economic prospects are relatively positive, given that supply bottlenecks are progressively reduced especially in the energy sector and infrastructure, reforms to boost agriculture and improve the business climate are implemented, and large prospective mining projects come on stream. But those prospects are far from certain since serious risks cloud the medium-term outlook. The most significant of these risks are: (i) the Ebola epidemic persisting beyond 2015; and (ii) continued fall in commodity prices.

9. Decreasing revenue prospects and expected higher expenditures deteriorated the fiscal situation of the country in 2014. Preliminary data suggest budget execution in 2014 resulted in a higher basic fiscal balance deficit than initially projected and to 2013 results (Table 5.1). The latest estimation of the basic deficit is 5.7 percent of GDP, compared to initial projection of 4.0 percent of GDP and a negative result of 2.8 percent of GDP last year (IMF, 2015). Downward revision of revenues (excluding grants) reflected the effect of the Ebola crisis and the delay in receiving exceptional mining revenue. On the expenditure side, the country fiscal program was updated several times, particularly current expenditures, to accommodate the Ebola response plans (primarily financed by development partners). To partly offset the revenue loss, public investment was cutback. As result of these forces, the authorities allowed the fiscal deficit to

increase within the limit of available financing (mainly, deposits from exceptional mining revenue in the past) and international grants to fight Ebola.

TABLE 5.1. FISCAL INDICATORS- 2013 2016 (PERCENT OF GDP)

		2014		2015	2016
	2013	Initial Projection	Latest estimation	Estimation	Estimation
Total Revenues	**19.9**	**24.9**	**25.7**	**23.4**	**23.1**
Revenue, excluding grants	18.4	19.3	18.7	20.7	20.4
Grants	1.5	5.6	7	2.7	2.7
Total Expenditures and net lending	**25.1**	**28.9**	**30.1**	**33.6**	**27.2**
Current	16.2	15.6	18.1	20.5	17.4
Interest payments	1.1	1.1	1.1	1.1	1.4
Capital expenditure and net lending	8.9	13	11.7	12.6	9.8
Basic Balance[1]	-2.8	-4	-5.7	-6.6	-1.9
Overall balance, excluding grants	-6.7	-9.6	-11.4	-12.9	-6.8

[1]Revenue minus expenditure, excluding interest on external debt and foreign financed investment

Source: IMF (2015).

Economic Rationale for Health Sector Investments

10. Up to now, efforts have focused largely on interventions to contain the EVD outbreak, but it seems increasingly clear that more needs to be done to address secondary effects of the outbreak such as the weakening of maternal and child health services. Already prior to the Ebola outbreak, Guinea had a very low functioning healthcare system, poverty was endemic, malnutrition was rampant. Although many function similar to private providers, public sector providers are found across Guinea, with a mandate to be accessible to the majority of the population. As health is widely considered a public good, and the public sector caters largely to the poor, there is a strong rationale for public sector financing. The private sector is largely located in urban Conakry, catering to the better off.

11. Private spending by households constitutes the biggest source of funds that support Guinea's health system. Health care expenditure in Guinea collectively accounted for approximately 4.3 percent of Guinea's GDP in 2012. Household expenditures constitute nearly 60 percent of health expenditures in the country, which is the equivalent of approximately 2.6 percent of GDP. These expenditures support the cost recovery structure, which, by one measure, accounts for approximately 20 percent of total funds to public health facilities (HER, 2014). Cost recovery is stronger at higher levels of the health pyramid, and health centers and health posts require a larger amount of subsidies, especially on non-personnel expenditures, from the central government.

12. External financing by national or multinational donor agencies and NGOs is another major source of health financing in the country. Estimates suggest that external financing managed by

MSHP accounts for 12 to 14 percent of total health expenditures. Additionally Guinea receives technical assistance in the health sector, which includes a big amount of funds for specific programs. Taken together, the international funding and technical assistance account of approximately 28 percent of health care resources, which represents 1 percent of GDP.

13. Public health care spending in Guinea has been low and variable, and has been declining in real value. Public funds to health care account for approximately 0.5 percent of GDP, 2 to 3 percent of total government spending, and 13 percent of all health care expenditures in Guinea. Government expenditures on health, as a share of both GDP and public spending is low (in comparison to other sectors) and unstable, and the low level of spending is further exacerbated by the low budget execution rates. Most public health spending is on operating expenditures (salaries and non-personnel) and capital investments in health are particularly lacking.

14. Government health expenditures is not adequate, and falls behind both levels observed in other similar countries and levels recommended by international development agencies. Comparison of total health expenditures across countries is trickier because of measurement problems, but it is still illustrative. To make comparisons a little more meaningful, the country Health Sector Public Expenditure Review (HER, 2014) used WDI data in current US$ and in constant international dollar. Guinea falls far behind similar countries in the region. Its per capita spending measured in current dollars, at US$23 per capita, stands less than half of the level in the neighboring countries (table 5.2)

15. The Ebola crisis and its magnitude were a direct result of an extremely weak health system, now weakened further by the epidemic itself. Ebola response efforts have absorbed much of the public sector capacities, and are largely implemented by international organizations and NGOs in parallel to the public health system. This reflects the severe capacity constraints of Guinea to deliver services using its own structures. Many health facilities are no longer operational due to desertion and health personnel death and the disruption in supplies and commodities. The rationale to invest into the health sector is thus clear.

TABLE 5.2: INTERNATIONAL COMPARISONS OF PER CAPITA HEALTH SPENDING FOR GUINEA, 2010

Country	Per capita spending on health in current US$	Per capita spending on health in PPP (constant 2005 international $)	Per capita public spending on health in current US$	Per capita public spending on health in PPP (constant 2005 international $)
Benin	31.1	65.4	15.4	32.4
Burkina Faso	39.8	92.6	20.3	47.2
Côte d'Ivoire	59.7	97.6	12.9	21.1
Ghana	67.0	84.9	39.9	50.5
Guinea	**23.0**	**56.3**	**2.6**	**6.4**
Liberia	29.2	49.3	9.5	16.0
Mali	31.7	55.6	14.7	25.9
Mauritania	42.7	79.0	22.7	42.0

Source: HER, 2014, based on WDI, 2012

Cost-Benefit Analysis

16. The economic analysis is expected to determine whether the costs in achieving the objectives of the project are significant in relation to the expected benefits of the project. The main challenge in economic evaluations of multi-intervention projects is to combine all possible outcomes into a single, composite, measure of effectiveness (or benefits). This is usually overcome by conducting a cost-benefit analysis (CBA). In CBA costs and outcomes are valued in a commensurate unit, often money. This allows a direct comparison of costs and benefits of the project, the costs and benefits of alternatives use of the project resources (economic costs) and compare costs and benefits of interventions beyond the health sector.

17. The project will support the government roll out and implement interventions to improve the supply and demand of maternal and child health services in areas of greatest needs in the country. To achieve its project objective, proposed interventions are organized around three complementary components: (1) strengthening the supply of MCHN services at primary level, by ensuring availability of commodities and supplies and relevant health worker competencies to deliver MCHN services; (2) strengthening the demand for services, by supporting the financial coverage of indigents, and community demand creation by community health workers; and (3) strengthening supervision, management and implementation capacity, and evidence generation to guide more wide ranging future reform.

18. The project is to improve the utilization of maternal, child health and nutrition services at primary level in target regions. It is expected that there will be impact on health outcomes for women and children in the targeted districts/regions. Therefore, the impact of the project can be modeled as a series of interventions that affect the following health indicators applicable to the beneficiaries of the project: infant mortality rate and maternal mortality rate.

19. There is well-documented evidence on the impacts of community based primary health care interventions on child and maternal mortality. In a systematic review, Hall (2011) concluded that the odds ratio of exclusively breastfeeding is 5.6 times greater for women counseled by CHWs than that for women who were not. The effectiveness of CHWs in diagnosing and treating childhood pneumonia (leading cause of under-five mortality globally) is well-established: a meta-analysis of seven published studies from Bangladesh, India, Nepal, Pakistan, the Philippines, and Tanzania demonstrate a reduction in total mortality of 24 percent and a reduction in pneumonia-specific mortality of 36 percent in under-five children (Sazawal & Black, 2003). Studies have demonstrated that management of childhood malaria by CHWs reduces overall under-five mortality by 40 percent and malaria-specific under-five mortality by 60 percent (Kidane & Morrow, 2000; Sirima et al., 2003). CHWs can provide antenatal and postnatal care, they can reduce the risk of post-partum hemorrhage and subsequent maternal mortality. Prevention of unwanted pregnancies is one of the four pillars of prevention of maternal mortality, if the unmet need for contraception were fully met, maternal deaths would further decline by 29 percent (Ahmed et al., 2012). To model the impact of the project on maternal and child health a conservative approach is adopted given the uncertainties related to the magnitude of the impacts of the interventions and project implementation. It is assumed that the project interventions will

reduce maternal and child mortality by one percent for the first year of implementation, followed by an increment of 0.5 percent for the subsequent years (maximum of 2.5 percent).

20. Monetary valuation of benefits **from reduced mortality is a long standing debate among researchers and practitioners.** Major issues are the ethical and equity issues around the task of how to value a life (or years of life) saved. One possibility for such task is to apply the resource costs of alternative means of saving a life. Alderman et al. (2004) estimates US$1,250 is the savings for saving an infant's life through a measles campaign. The same authors estimate the gains from averting a low birth weight infant by US$580 (Alderman et al., 2004). An alternative approach is to measure the impacts, and the monetary benefits, in terms of productive life years gained due to reduced mortality. This is done by calculating the number of years gained as a result of a project intervention and calculating the economic benefit of these years. Given the nature of the current project interventions and the likelihood of having great impact among children, hence large gains in terms of future productive life years, the economic evaluation adopts the latter approach to measure the economic benefits of the project.

21. The analysis uses population health and demographic indicators (table 5.3) and apply the following assumptions to estimate the (economic) benefits of reducing child and maternal mortality, as follows[27]:

22. The discounted total benefits of the project, estimated in productive life years gained, is estimated in US$45.41 million which is significantly higher than the net present value of the project costs (US$14.15 million). The benefit-cost ratio is estimated in US$3.21 (45.41/14.15 = 3.21), this means that for each US$1 invested through the project there will be an expected return of US$3.21 (see table 5.4). Although significantly high, these results are based on conservative assumptions adopted and likely underestimate the total project benefits. For example, health care costs (for health systems and households) saved due to reduced morbidity and mortality are not take into account, efficiency gains are not included, and the effect of project interventions on health outcomes are considerably low (from 1% to 2.5 percent reduction in mortality rates). Sensitivity analysis suggests that the benefit-cost ratio is as high as 5.4 if the project impact on mortality rates ranges from 0.5 percent (at the beginning of the project) to five percent in the fifth year of the project. Assuming a constant impact of one percent for all five years results in a benefit-cost ratio equal to 1.68. When the same rate is assumed to be three percent the benefit-cost ratio is equal to 5.08.

- For children productive years are assumed to range from 13 to 56 (Guinea's life expectancy at birth for men). This means their productive life years will only start to count when a child is 13 years old. It is also assumed the average year of a saved child is two years old;

- For pregnant women it is assumed that their average age is 20 years old and the maximum age for being active in the labor force is 57 (which is the women life expectancy at birth in Guinea);

- The GNI per capita is used to value each productive life years gained. Guinea GNI per capita in 2013 was US$460 (WDI 2013). This may be reduced due to recent Ebola crisis, but used here since it is the latest available;

[27] Some of the assumptions are taken from previous cost-benefits analysis of Bank's projects (e.g., Zambia).

- The analysis adopts a five-year time frame following the project implementation time frame. Both cost (project total amount) and benefits (productive life years gained) are discounted with a three percent discounting rate which is a commonly used rate in similar economic evaluations (WHO, 2003; Drummond et al., 2005). The disbursement rate is assumed to be constant across the five years, yielding a net present value of US$14.15 million

TABLE 5.3: POPULATION HEALTH AND DEMOGRAPHIC INDICATORS

Population under five in Labe and Faranah	383,757.40
Number of pregnant women (national)	95939.35
GNI per capita (US$, 2013)	460
Life expectancy at birth (women)	57
Life expectancy at birth (men)	56
Infant Mortality ratio in Labe and Faranah (per 1,000)	151.7
Maternal Mortality ratio (per 100,000)	650
Population growth rate (2013)	2.5%

SOURCES: World Bank, WDI;

TABLE 5.4: COST-BENEFIT ANALYSIS RESULTS

	2015	2016	2017	2018	2019	Total
Child Health Benefit						
Number of Children under five	383,757.4	393,351.335	403,185.1184	413,264.7463	423,596.365	
Saved Children under five	582	895	1,223	1,567	1,606	5,874.29
Gained productive life-years per child under five (present Value)	17.84	17.31	16.80	16.31	15.83	17
Total Gained productive life-years (present value)	10,385	15,496	20,554	25,558	25,425	97,419
Economics Gains relate to improved child health (US$ million, present value)	4.78	7.13	9.45	11.76	11.70	44.81
Maternal Health Benefit						
Number of pregnant women	959,39.4	983,37.8	100,796.3	103,316.2	105,899.1	
Saved women form maternal death	6.24	9.59	13.10	16.79	17.21	63
Gained productive life-years per saved women (present value)	22.2	21.5	20.9	20.3	19.7	21
Total Gained productive life-years (present value)	138.2	206.3	273.8	340.6	338.9	1297.9
Economics Gains relate to improved maternal health (US$ million, present value)	0.06	0.09	0.13	0.16	0.16	0.60
Total Health Benefit						
Total Gained productive life-years (present value)	10,523.22	15,702.76	20,827.94	25,899.01	25,763.52	98,716
Economic gains related to improved child and maternal health (US$ million, present value)	4.84	7.22	9.58	11.91	11.85	45.41
Total Costs						
Total Costs (nominal, US$ million)	3.00	3.00	3.00	3.00	3.00	**15.00**
Total Costs (present value, US$ million)	3	2.91	2.83	2.75	2.67	**14.15**
BENEFITS/COSTS RATIO	**1.61**	**2.48**	**3.39**	**4.34**	**4.45**	**3.21**