



Report Number: ICRR0023047

1. Project Data

Project ID
P128909

Project Name
LR-Health Systems Strengthening (FY13)

Country
Liberia

Practice Area(Lead)
Health, Nutrition & Population

L/C/TF Number(s)
IDA-52440,TF-14432,TF-A4116

Closing Date (Original)
30-May-2018

Total Project Cost (USD)
30,617,700.14

Bank Approval Date
30-May-2013

Closing Date (Actual)
30-Nov-2021

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	10,000,000.00	21,000,000.00
Revised Commitment	31,000,000.00	20,967,159.26
Actual	30,617,700.14	20,967,159.26

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Project ID
P162477

Project Name
Health Systems Strengthening Project (P162477)

L/C/TF Number(s)

Closing Date (Original)

Total Project Cost (USD)
0

Bank Approval Date

Closing Date (Actual)



23-Feb-2017

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	0.00	0.00
Revised Commitment	0.00	0.00
Actual	0.00	0.00

2. Project Objectives and Components

a. Objectives

The objectives of the project were to improve the quality of maternal health, child health, and infectious disease services in selected secondary-level health facilities (Financing Agreement, p. 6).

Another objective to support the emergency response needed to contain and control the Ebola outbreak was added on August 8, 2014, at which time no disbursements had yet occurred.

On January 30, 2017, the PDO was revised in conjunction with additional financing to include the quality of primary services in support of the country's Reproductive Maternal Neonatal Child and Adolescent Health (RMNCAH) Investment Case, while concurrently dropping PDO reference to infectious disease services. The Ebola response objective was also dropped with the end of the Ebola outbreak. The final revised PDO was stated as follows: to improve the quality of primary and secondary health care services, with focus on maternal, neonatal and child health (ICR, p. 19 and p. 40). In addition, there were downward revisions for some outcome targets in 2017 and 2019.

b. Were the project objectives/key associated outcome targets revised during implementation?

Yes

Did the Board approve the revised objectives/key associated outcome targets?

Yes

Date of Board Approval

30-Jan-2017

c. Will a split evaluation be undertaken?

Yes

d. Components



I. Strengthening the institutional capacity to improve the quality of selected health interventions at PBF health facilities (Appraisal: US\$10 million; Actual: US\$19.7 million). The component was re-named in January 2017 as **Support to quality service delivery systems.**

Subcomponent 1.1: Performance-based financing (PBF)

The sub-component included performance-based contracts between the Ministry of Health and Social Welfare (MOHSW) and target hospitals; use of performance incentives and provision of health facilities with sufficient autonomy to manage funds; and verification of results through ex-ante (before payment) and ex-post verification.

Subcomponent 1.2: Management and capacity building

This sub-component aimed to provide intensive technical support to build the institutional capacity required to manage the PBF approach. Specifically, it would support technical assistance, capacity development, and independent verification.

The component was expanded in 2017 to include primary health care (PHC) services that would support the implementation of the RMNCAH Investment Case. According to the ICR (p. 21), the decision to include PHC was driven by two factors: development partners scaled back their overall support at the PHC level; and the performance of PHC service delivery was poor, particularly in remote and rural counties.

II. Improving health worker competencies to address key health-related concerns at selected health facilities (Appraisal: US\$4.2 million; Actual: US\$2.7 million). The component was re-named in January 2017 as: **Support to strengthening fit-for-purpose health workforce.**

Sub-Component 2.1: Graduate Medical Residency Program (GMRP)

This sub-component was to support the design and implementation of a nationally accredited GMRP in critical specialty areas (obstetrics, surgery, pediatrics, and internal medicine, with a cross-cutting focus on anesthesiology). Residents would be selected from the existing pool of medical school graduates. The project would assist in identifying, recruiting, and funding relevant faculty to mentor and train residents at target facilities, and in residents' rotation. The project would leverage the teaching capacity developed under GMRP also to train existing mid-level cadres (see below).

Sub-Component 2.2: In-service training programs to mid-level health cadres

The sub-component would focus on mid-level cadres such as midwives, nurses, and physician assistants in target hospitals and their satellite centers.

III. Project management (Appraisal: US\$0.8 million; Actual: US\$2 million)

This component would support MOHSW operational costs for managing the project.

The following new component was added on August 4, 2014:



IV. Support to the emergency response to the Ebola epidemic. The component was revised in 2017 as **Support to strengthening critical services and support systems (Appraised in 2014 at US\$6 million; Revised in 2017 at US\$6.6 million; Actual US\$6.6 million)**. This component was to provide funding for critical services to support the Ebola outbreak response; functions and infrastructure that promote the quality of RMNCAH services, including health workforces; and civil registration, vital statistics, and monitoring and evaluation (M&E) (Task Team clarifications, July 7, 2022).

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Cost and financing: The original cost was estimated at US\$15 million, consisting of an IDA Credit of US\$10 million and a Health Results Innovation Trust Fund (HRITF) Grant of US\$5 million funded by the Kingdom of Norway and the United Kingdom. Additional Financing of US\$16 million from the Global Financing Facility (GFF) was provided, bringing the total estimated project cost to US\$31 million. There were no direct financial contributions from the Borrower. The actual cost was US\$30.6 million.

Dates: The project was approved on May 30, 2013 and became effective on June 16, 2014. A Mid-Term Review was carried out on December 3, 2018. The project closed on November 30, 2021, 3.5 years beyond the originally planned closing of May 30, 2018.

Restructurings: The project underwent five restructurings as follows:

1. Level-1 restructuring on August 4, 2014: The PDO was revised to include the emergency response to the Ebola outbreak.
2. Level-1 restructuring on January 30, 2017: The project received additional financing of US\$16 million from GFF in support of the RMNCAH Investment Case. The PDO was revised to include primary health care and neonatal care, and to drop infectious disease services and the support to Ebola response that ended by 2016. The indicator on maternal and child death audits carried out routinely by target PBF hospitals according to national guidelines was revised to delink maternal death audits from neonatal death audits, and the outcome target was reduced from 100 percent to 80 percent (ICR, p. 17). A new indicator on neonatal death audits was introduced with an outcome target set at 80 percent.
3. Level-2 restructuring for extending the HRITF grant until May 17, 2019 to allow full disbursement in view of previous delays caused by the Ebola crisis.
4. Level-2 restructuring on April 1, 2019 revised the results framework. Maternal death audits and neonatal death audits previously qualified as "according to national guidelines" had a "revised language" for added specificity, and were re-qualified as "according to national maternal death audit guidelines" and "according to national neonatal death audit guidelines." The end target for maternal death audits was reduced from 80 percent to 65 percent; and the end target for neonatal death audits was reduced from 80 percent to 45 percent. The Restructuring Paper (RES34880) stated that end target changes reflected realistic estimates based on the current progress to date.
5. Level-2 restructuring on May 21, 2020 extended the closing date to November 30, 2021.

Scope of the Operation and selection of facilities:



A total of eight hospitals (Redemption, Phebe, CB Dunbar, Tellewoyan, Jackson F. Doe, FJ Grante, St. Francis, and Chief Jallah Lone) participated in the secondary care PBF. According to the PAD (p. 7), facilities were selected because of a relatively low quality of care outcomes, and because they were strategically located in both semi-urban and semi-rural areas, thereby ensuring that project benefits would spill-over to a large catchment population, estimated at about 30 percent of the population of Liberia.

Three rural and remote counties (out of 15 counties in the country) with poor RMNCAH indicators (Gbarpolu, Rivercess, and Sinoe) participated in the primary care PBF scheme.

Five counties participated in the Community Health Assistant Program (see Objective 2): Sinoe, Gbarpolu, Grand Gedeh, Grand Kru, and Grand Cape Mount.

The project also supported the piloting of an Adolescent Health Program in one county (Grand Bassa County).

3. Relevance of Objectives

Rationale

Project objectives were responsive to Liberia's health challenges. The health system was being rebuilt after the civil war during which many health professionals left the country (PAD, p. 1). Liberia faced significant challenges in improving maternal and child health outcomes. Post-conflict conditions placed Liberia at the bottom of global rankings for maternal and child health. The maternal mortality ratio (MMR) remained high at 770 maternal deaths per 100,000 births (2010). Also, with the majority of external funding being allocated to primary care, the ability to improve the quality of care at the secondary level was limited, and the government considered that the alleviation of this gap was a key next step for rebuilding Liberia's health system (PAD, p. 2).

At appraisal, the objectives were consistent with the government's two-pronged approach to improve health outcomes by strengthening the health system and by expanding access to basic and secondary health care of acceptable quality. According to the PAD (p. 5), the objectives were consistent with the Country Assistance Strategy 2013-2017 and the Poverty Reduction Strategy Paper.

At closing, the objectives were fully consistent with the Country Partnership Framework (CPF) for the period FY19-FY24, specifically Pillar 2 on Building Human Capital to Seize New Economic Opportunities and its Objective 6 on improved early childhood and maternal health. The CPF noted that actions under Objective 6 would focus on improving maternal, child, and adolescent health care to promote more equitable and affordable access to quality health services, and that they would assist Liberia in establishing effective health sector financing mechanisms by scaling up the PBF currently being piloted in several counties. The CPF noted that a new IDA-supported Health Project would be prepared jointly by the health and governance teams to ensure addressing the challenges of maternal and child health in a holistic manner. Two project indicators -- mothers' postpartum contact with a healthcare provider, and fully immunized children -- were CPF indicators. Also, Community Health Assistants mobilized and deployed in several counties constituted a supplementary progress indicator for the CPF.



Rating

High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

Improve the quality of maternal health and child health services in selected secondary-level health facilities

Rationale

The theory of change held that the application of the PBF modality, provision of PBF incentives, technical assistance, training incentives for residents and faculty to improve skills, increasing the number of specialized physicians, and enhancing in-service training would plausibly contribute to improving the quality of maternal health and child health in related facilities.

Outputs and intermediate results

The project measured quality scores at the hospital level on a quarterly basis. Scores were based on the Hospital Quarterly Quality Assessment Tool that included (i) management and structural criteria: General Management and Human Resources for Health; and (ii) process aspects of health care quality: Obstructed Labor, Postpartum Hemorrhage Prevention and Treatment, Maternal Sepsis Prevention and Treatment, Eclampsia, Newborn Asphyxia Hospital Management, Newborn Sepsis Hospital Management, Premature Newborn Hospital Management, Routine Maternal and Newborn Care, Pediatric Emergency Triage Assessment and Treatment, Pediatric Malaria Hospitalization, Pediatric Pneumonia, Pediatric Diarrhea/Gastroenteritis, Pediatric Severe Acute Malnutrition Inpatient Treatment, and Safe Surgery.

Physicians who completed the post-graduate medical residency program reached 57 physicians, exceeding the target of 40 physicians.

The number of doctors receiving in-service training in obstetrics, pediatrics, surgery, and internal medicine under the project reached 51 doctors in 2021, exceeding the target of 50 doctors.

The proportion of PBF hospitals reporting discussion of grievances that were received reached 69 percent, exceeding the target of 50 percent.

Outcomes

The following outcomes were measured. All baselines were recorded as zero in the context of new activities and/or to reflect the incremental contribution of the operation:



The average Quality of Care Score of target PBF hospitals reached 84.1 percent in 2021, exceeding the target of 65 percent.

Maternal death audits reached 69 percent in 2021, short of the original target of 100 percent for maternal and child death audits.

Rating

Substantial

OBJECTIVE 1 REVISION 1

Revised Objective

Improve the quality of maternal health and child health services in selected secondary-level health facilities (under 2017 revised outcome targets)

Revised Rationale

The theory of change, outputs, and quality score outcomes were the same as under the Original Objective 1, above, and:

- Maternal death audits reached 69 percent in 2021, short of the revised target of 80 percent.
- Neonatal death audits reached 68.4 percent in 2021, short of the target of 80 percent.

Revised Rating

Substantial

OBJECTIVE 1 REVISION 2

Revised Objective

Improve the quality of maternal health and child health services in selected secondary-level health facilities (under 2019 revised outcome targets)

Revised Rationale

The theory of change, outputs, and quality score outcomes were the same as under the original and revised Objective 1, above, and:

- Maternal death audits reached 69 percent in 2021, exceeding the revised target of 65 percent.
- Neonatal death audits reached 68.4 percent in 2021, exceeding the revised target of 45 percent.

Revised Rating

High



OBJECTIVE 2

Objective

Improve the quality of primary health care services, with focus on maternal, neonatal, and child health (new objective introduced in 2017)

Rationale

The scope of primary health care was not specified in the PDO statement, but was clarified by the ICR based on project activities as being focused on three remote counties (and five counties for the Community Assistants Program).

The theory of change held that the provision of PBF at the primary health care level in support of RMNCAH, utilization of existing County Health Teams, and strengthening of the Community Health Assistants Program would plausibly contribute to improving the quality of primary health care services, with a focus on maternal, neonatal, and child health.

Outputs

The project developed a PBF modality for PHC-level services. Contracting was undertaken with the County Health Teams rather than with respective health facilities in the three targeted counties because of the scarcity of banking facilities in remote areas that would have created significant challenges to peripheral facilities in accessing their funds without the support of the County Health Teams (ICR, p. 38).

PHC-level quality scores were monitored and were based on the Joint Integrated Support and Supervision quality checklist for primary health care facilities: Administration, Ante-Natal Care, Expanded Programme on Immunization, Family Planning, HIV, Tuberculosis, Integrated Management of Childhood Illness, Malaria, Mental Health, Labor, Obstetric Complications, Postpartum Care, and Infection Prevention and Control (ICR, p. 30).

The project supported the Community Health Assistants Program to use community health focal points to provide an integrated package of basic community health services in five counties, with UNICEF technical support. The project trained and deployed a total of 416 Community Health Assistants and 42 Community Health Service supervisors (ICR, p. 31).

The project supported civil registration of births. It also supported a pilot of an Adolescent Health Program in Grand Bassa County. This pilot included operational and consultant costs to carry out demand-driven prioritized adolescent health activities focusing on reduction of teenage pregnancy. Interventions included programs for in-school and out-of-school youth and community engagement and were designed to increase awareness of and impact of gender-sensitive decisions on adolescents' well-being.

Intermediate results

The number of deliveries attended by skilled health personnel reached 671,358 deliveries, exceeding the target of 500,000 deliveries.

The number of new users of modern contraceptive methods increased from a baseline of 123,165 in 2013 to 1.1 million in 2021, exceeding the target of 700,000 new users.



The number of children immunized (fully immunized per schedule of the Expanded Programme on Immunization) under the operation reached 769,693 in 2021, exceeding the target of 600,000 children.

Under the Community Health Assistants Program, the number of children treated with Oral Rehydration Solutions and Zinc increased from 4,123 in 2018 to 6,562 children in 2019, and the number of children screened for malnutrition increased from 35,544 in 2018 to 41,233 children in 2019 (ICR, p. 74).

The number of births registered within one year of birth occurrence under the operation reached 263,945 registrations in 2021, far exceeding the target of 15,000 registered births.

Outcomes

The average quality score for the primary care PBF for the three target counties combined was 71 percent in 2021, compared to a baseline of 36 percent in 2018 (Rivercress had a score of 77 percent from a baseline of 36 percent; Sinoe reached 70 percent from a baseline of 37 percent; and Gbarpolu County reached 68 percent from a baseline of 36 percent [ICR, p. 29]).

The proportion of mothers who had a postpartum visit within 24 hours of delivering reached 86.4 percent, exceeding the target of 80 percent.

Rating

High

OBJECTIVE 3

Objective

Improve the quality of infectious disease services in selected secondary-level health facilities (dropped in 2017)

Rationale

The project did not establish a theory of change for this objective. There was no specific reference in the description of project components of how the project would support the prevention and control of infectious diseases (ICR, p. 37).

According to the ICR (p. 28), the context of infectious diseases under the project was to support the prevention of hospital-acquired infections that were prevalent after surgeries. The project provided routine infection prevention and control materials. No specific information was provided on related outputs or monitoring of progress, and there were no indicators at the intermediate or outcome levels to assess the achievement of the objective (ICR, p. 27).

Rating

Negligible



OBJECTIVE 4

Objective

Support the emergency response needed to contain and control the Ebola outbreak (dropped in 2017, as the outbreak was declared to be over in June 2016)

Rationale

The ICR (p. 28) summarized in general terms the main outputs that were observed during the Ebola Virus Disease (EVD) outbreak. The project provided infection prevention and control materials, and supported additional staff (including international staff) and hazard payment to existing staff. In an effort to ensure health services delivery during the outbreak, EVD response workers provided health services across the whole health spectrum and helped sustain the provision of essential services, beyond the provision of EVD services, as human resource capacity in the country was already weak before the EVD outbreak. Some pre-existing health workers became ill or died because of EVD, while others were too afraid to report to work. MOHSW contracted UNICEF with project funds to supply infection prevention and control materials and medicines for distribution to emergency treatment units and health facilities. The United Nations Office for Project Services was also contracted to procure ten ambulances for emergency transportation of patients, and the delivered ambulances were managed by County Health Teams.

The ICR reported the following output as the objective’s outcome, based on the project’s results framework: “Doctors, clinicians and other MOH-approved staff who received hazard payment for the provision of EVD-related services reached 28,537 persons,” The value of this indicator in assessing the extent of outcome achievement was weak. In view of insufficient information on the project’s pursuit of this objective, and on its progress and assessment, the achievement of this objective is rated modest.

Rating

Modest

OVERALL EFFICACY

Rationale

The project almost fully achieved the objective to improve the quality of maternal and child health services in selected secondary-level health facilities, barely achieved the objective to improve the quality of infectious disease services in selected secondary-level health facilities, and partly achieved the objective to support the emergency response needed to contain and control the Ebola outbreak. The aggregation of achievements for the three objectives is consistent with a modest efficacy rating.

Overall Efficacy Rating

Modest

Primary Reason

Low achievement

OVERALL EFFICACY REVISION 1

Overall Efficacy Revision 1 Rationale



The objective to improve the quality of secondary health care services with a focus on maternal, neonatal, and child health under the revised outcome targets was almost fully achieved, and the objective to improve primary health care services with a focus on maternal, neonatal, and child health was fully achieved, consistent with a substantial efficacy rating.

Overall Efficacy Revision 1 Rating

Substantial

OVERALL EFFICACY REVISION 2

Overall Efficacy Revision 2 Rationale

Both objectives, to improve the quality of secondary health care services with a focus on maternal, neonatal, and child health under the revised outcome targets, and to improve primary health care services with focus on maternal, neonatal, and child health, were fully achieved, consistent with a high efficacy rating. The number of people who received essential health, nutrition, and population services under the whole operation reached 1.44 million people in in 2021, exceeding the target of 1 million people.

Overall Efficacy Revision 2 Rating

High

5. Efficiency

The PAD's economic and financial analysis did not undertake traditional measures of efficiency, but instead provided generic arguments in support of the investment. It highlighted the fact that the project would focus on improving services, clinical practices, and competencies through interventions that are known to be cost-effective (PAD, p. 23). The analysis noted that the project would generate economic benefits in the form of averted deaths (in particular maternal and infant deaths) and improved patients' welfare, such as shortened recovery periods. It also noted that the PBF mechanism can be used as a platform to help improve the efficiency of targeted facilities, as performance-based incentives have the potential to transform managers and staff into strategic problem solvers focused on improving quality, utilization, and efficiency of care (PAD, p. 25).

The ICR's analysis focused on lives saved to measure benefits. It had reasonable assumptions that were based on global literature, notably for estimating the number of maternal lives saved and the impact of maternal death audits; estimating lives saved among neonates and under-5 children; and estimating the impact of the quality-of-care improvement on deaths averted. The project could potentially save 917 maternal lives, 2,370 neonatal lives, and 8,492 under-five children's lives, and avert 2,187 stillbirths. The Net Present Value (NPV) of project benefits at a 10 percent discount rate was estimated at US\$259.8 million with a benefit-cost ratio of 15.3 for every dollar invested, yielding an overall NPV return of US\$229 million. The benefit-cost ratio indicated that, for every dollar invested, the likely return would be US\$15.



A sensitivity analysis used a larger variation in discount rates that did not considerably reduce the benefit-cost ratio, indicating that even in larger uncertainties where inflation or other instability occurs, the project’s NPV and benefit-cost ratio could still be positive with a solid return on investment (ICR, p. 68).

In terms of operational efficiency, development partner coordination was strong and efficient (ICR, p. 39). However, there were shortcomings in project implementation that contributed to reducing efficiency. Project effectiveness was delayed by one year due to a lengthy government approval process, particularly for obtaining a legal opinion. The Ebola outbreak and the COVID-19 pandemic caused disruptions in project activities and health services. Verification arrangements for PBF results were reduced from a monthly to a quarterly basis and with reduced verifier down time. Two hospitals effectively pursued virtual verification. The ICR did not offer information on the verification costs under PBF, but the Task Team clarified on July 7, 2022 that verification expenditures amounted to 28 percent of the PBF budget. Service providers experienced delays in getting PBF payments processed (ICR, p. 40). Human resource challenges were also faced due to staff turnover. Closing date extensions aggregated at 3.5 years, although one year was related to additional financing. The project disbursed virtually all of its allocated funds, attaining a disbursement rate of 99 percent.

Efficiency Rating

Substantial

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal		0	0 <input type="checkbox"/> Not Applicable
ICR Estimate		0	0 <input type="checkbox"/> Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

- Relevance of objectives across the entire project is rated high, as there was full alignment between the objectives and the CPF at closing.
- Efficiency, also rated across the entire project, is rated substantial.
- Efficacy: (i) Under the original objectives, efficacy is rated modest, as the project partly achieved its aggregated objectives. (ii) Under the first revision, efficacy is rated substantial, as the project almost fully achieved its objectives. (iii) Under the second revision (outcome targets), efficacy is rated high, as the project fully achieved its objectives.



According to IEG/OPCS guidelines, when a project's objectives are revised, the final outcome is determined by the weight of Bank disbursements under each set of objectives (22.2 percent, 20.3 percent, and 57.5 percent):

- Under the original objectives, the outcome is rated moderately unsatisfactory (rating value: 3) with a weight value of 0.67 (3 x 22.2%).
- After the first revision of 2017, the outcome is rated satisfactory (rating value: 5) with a weight value of 1.02 (5 x 20.3%).
- After the second revision (outcome targets) in 2019, the outcome is rated highly satisfactory (rating value: 6) with a weight value of 3.45 (6 x 57.5%).

These add up to 5.14 (rounded to 5), which corresponds to an overall outcome rating of Satisfactory.

The following table illustrates split rating calculations:

Rating Dimension	Original Objectives	Objectives after 1st revision	Objectives after 2nd revision (outcome targets)
Relevance of Objectives	High		
Efficacy			
Objective 1: Improve quality of MCH services at 2ary level	Substantial	Substantial	High
Objective 2: Improve quality of MCH services at 1ary level	---	High	High
Objective 3: Improve quality of infectious disease services	Negligible	---	---
Objective 4: Support emergency response to Ebola	Modest	---	---
Overall Efficacy	Modest	Substantial	High
Efficiency	Substantial		
Outcome Rating	Moderately Unsatisfactory	Satisfactory	Highly Satisfactory
Outcome Rating Value	3	5	6
Amount disbursed (US\$ million)	6.78	6.22	17.6
Disbursement %	22.2	20.3	57.5
Weight Value	3 x 22.2% = 0.67	5 x 20.3% = 1.02	6 x 57.5% = 3.45
Total weights	5.14 (rounded to 5)		
Overall Outcome Rating	Satisfactory		

a. **Outcome Rating**
Satisfactory

7. Risk to Development Outcome



According to the ICR (44), the risk that development outcomes may not be maintained is related to overall sustainability aspects. Although the PBF approach for improving the quality of maternal and child health services has won substantial stakeholder support in the country, PBF is not formally institutionalized as a modus operandi for delivering health services. Nevertheless, the ICR reported that an ongoing Bank-financed health sector project (Institutional Foundations to Improve Services for Health) is committed to continuing some of the PBF interventions of this project. Also, institutional strengthening generated by this project was substantial. Hospital managers were adequately trained on how to carry out their functions using the PBF approach and how PBF incentives were earned through hospital performance. This also benefited overall capacity of hospitals to manage other non-PBF functions. In the remote counties where the primary care PBF was implemented, County Health Teams were trained in both PBF and other mainstream areas, such as business planning, financial management, procurement, pharmacy and supplies management, and human resources management. This strengthened their capacities in overall management of health services in their respective counties.

Another risk is related to the ongoing COVID-19 pandemic that is likely to continue to affect sector functioning in the near term. Other virus variants are likely to emerge, and a large number of people remain unvaccinated.

8. Assessment of Bank Performance

a. Quality-at-Entry

The preparation process effectively engaged development partners, notably the United States Agency for International Development (USAID), United Kingdom Department for International Development, UNICEF, and the European Union. USAID assisted MOHSW in PBF operations in six counties. Project design was informed by the experience of other countries. Lessons learned were considered, including for the merits of independent verification, training that promotes both competencies and motivation, and gradual scale-up (PAD, p. 15) that was adequately planned under the project by piloting PBF in one hospital before rolling out to other hospitals.

A Project Management Unit at MOHSW was to have direct responsibility and oversight for project coordination and management. The unit was to coordinate with the Department of Administration, Department of Health Services, and the Post-Graduate Medical Council for project activities, including training, procurement, and linkages with target hospitals (PAD, pp. 16-17).

Key risks were well identified, with specification of risk management measures that included extensive technical assistance (PAD, p. 69). The PAD also noted the fragility and vulnerability of the overall country context. Assessments were carried out to ensure compliance with World Bank fiduciary, environmental, and social requirements.

M&E arrangements for both monitoring and verification of results by an Independent Verification Agency were adequate. There was a gap, however, in designing and measuring the intended quality improvement in infectious disease services in the targeted facilities. The ICR (p. 37) reported that there was no specific reference in the description of project components on how the project would support the prevention and control of infectious diseases, that there were no specific indicators that addressed



infectious diseases despite their inclusion in the PDO statement, and that this was an oversight at appraisal.

Quality-at-Entry Rating
Moderately Satisfactory

b. Quality of supervision

Implementation support missions and supervision were carried out regularly. Fiduciary and technical specialists, including staff dealing with financial management, procurement, and environment and social safeguards, were part of supervision missions to ensure that relevant areas were adequately addressed. Reporting was candid, including 15 Implementation Status and Results Reports that enabled Bank management to provide needed advice and support to the supervision team. The Task Team was proactive in dealing with evolving issues and facilitated five restructurings (two level-1 and three level-2 restructurings). The ICR (p. 40) also reported that the Bank's Country Management Unit was highly supportive during the project implementation period.

Quality of Supervision Rating
Satisfactory

Overall Bank Performance Rating
Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The original objectives were clearly specified and reflected by measurable indicators, except for the objective to improve the quality of infectious disease services that lacked a theory of change, description of activities, and indicators. Some areas of the results framework lacked clarity. The revised PDO that introduced improvement in primary health care services did not specify its scope. The latter was clarified by the ICR (see Section 4).

Data were to be collected from the routine Health Management Information System, the Graduate Medical Residency Program, quality checklists at health facilities, and the Project Management Unit (subsequently re-named as Project Implementation Unit). M&E arrangements for tracking progress and verifying results were well defined. In addition, according to the PAD (p. 19), an impact evaluation was planned to estimate the causal impact of project interventions on key outcomes.



b. M&E Implementation

M&E implementation was regular, and the project periodically revised, clarified, and improved the results framework during project restructurings, including by adding new indicators, dropping others, and delinking combined indicators such as death audits. Two outcome targets were reduced (see restructurings in Section 2a). In addition to data generated by routine information systems and PBF data, the project used maternal and neonatal death audits and birth registrations.

The ICR noted that the counterfactual analysis under the impact evaluation that would have compared performance between PBF and non-PBF hospitals was initiated (baselines were collected in a 2015 survey) but could not be completed largely because of disruptions caused by the COVID-19 pandemic (Task Team clarification, July 7, 2022). The ICR (p. 33) stated that plans are in place to have relevant data collected, with results expected by August 2022. The ICR stated that the Independent Verification Agency in its end-of-project report and report on Implementation Research for PBF in the country showed positive findings, but no specific comparative information was provided.

c. M&E Utilization

Quantitative and qualitative data were used to fulfill regular monitoring needs and to process PBF payments. M&E findings were used to update the results framework and to make related decisions, as findings helped facilities identify areas for improvement and gauge efforts needed to meet the targets that were set in their operational plans.

The ICR (p. 41) also reported that M&E findings were used for national and county-level planning, and for donor planning.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

The project was classified as Environmental Assessment Category B - Partial Assessment, triggering World Bank safeguard policy OP 4.01, as an increase in health care waste generated by health facilities was anticipated. In terms of social aspects, the project did not trigger any safeguard policies. The project was also required to comply with environmental assessment requirements under the Liberia National Environment Act (1995) and with other national regulations. An Environmental and Social Management Framework (ESMF) that included an Environmental Management Plan was updated during project preparation, building on a previous plan that had been developed for another Bank-assisted project. The updated ESMF was disclosed on February 25, 2013, prior to project appraisal on March 01, 2013.

An Environmental and Social Safeguards Specialist was hired and assigned at the Project Implementation Unit to lead ESMF implementation. An environmental specialist coordinated compliance activities with the Division of Environmental and Occupation Health at MOHSW. The ICR (p. 42) reported that the project was



compliant with the ESMF throughout the project implementation period. A satisfactory overall safeguards rating was recorded in the Bank’s Operations Portal.

b. Fiduciary Compliance

During project preparation, overall financial management risk was assessed as moderate. During implementation, the project complied with agreed financial arrangements and with the requirement of submitting quarterly interim unaudited financial reports. External audits (undertaken by a private firm and subsequently by the General Auditing Commission) were carried out regularly and in accordance with International Standards on Auditing. There were no qualified external audits (ICR, p. 43).

In terms of procurement, an assessment conducted in October 2011 concluded that MOHSW had the capacity to manage procurement under the project. However, during implementation, many challenges were encountered, largely due to low capacity in preparing specifications, terms of reference, and documentation, and the project organized multiple capacity building procurement clinics. There were also challenges related to limited markets in the country and long supply chains at the level of international suppliers. Nevertheless, procurement was undertaken in compliance with Bank guidelines and with the provisions stipulated in the Legal Agreement. According to the ICR (p. 43), no mis-procurement or ineligible expenditures were reported under the project.

c. Unintended impacts (Positive or Negative)

None reported.

d. Other

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Satisfactory	
Bank Performance	Satisfactory	Moderately Satisfactory	There is no actual disagreement on the sub-ratings. Both the ICR and this ICR Review rated Quality-at-Entry as moderately satisfactory and the Quality of Supervision as satisfactory. The aggregation of both sub-ratings is consistent with a moderately satisfactory rating for overall



Bank Performance. The ICR incorrectly used the project's Outcome rating as a tie-breaker (that would be applicable only when the two elements of Bank Performance are in opposite directions of the borderline).

Quality of M&E	Substantial	Substantial
Quality of ICR	---	Substantial

12. Lessons

The ICR (pp. 44 - 47) offered several useful lessons and recommendations, including the following lessons slightly adjusted by this IEG Review:

Piloting performance-based financing programs facilitates subsequent roll-out. The project started as a PBF pilot at Redemption Hospital before being rolled out in phases until it encompassed eight hospitals. Piloting allowed learning-by-doing before scaling up. This lesson confirms similar findings from other countries such as Cambodia, Haiti, Burundi, Afghanistan, and Rwanda.

Virtual verification can be applied in pandemic circumstances. The project adjusted to the COVID-19 environment and increased the use of virtual meetings. The Independent Verification Agency piloted virtual verifications at sites that had good internet connectivity, suggesting that virtual verification can be used in other PBF operations and may contribute to reducing verification costs.

Performance-based financing empowers participating health facilities and the community. The project PBF empowered hospitals, County Health Teams, and the community to take more granular responsibility in overseeing their respective health facilities. Stakeholders had a greater obligation to increase accountability for outcomes. This was further facilitated by capacity building at MOHSW to enable it to guide and support lower sectoral levels.

A medical residency program can act not only as a training program, but also as a strategy to increase specialized service delivery in related facilities. Medical doctors in the postgraduate residency program provided specialized care at facilities where medical residencies took place. Hence, an increase in specialized services was realized in a relatively short period of time in the selected health facilities. Furthermore, hospitals entered into agreements through Memorandums of Understanding with the trained specialists to remain in place for a specified period of time. While some commitments were not honored, this arrangement contributed to sustaining a reasonable level of specialized skills at a given facility.

13. Assessment Recommended?

No



14. Comments on Quality of ICR

The ICR provided a thorough overview of the project experience. It was results-oriented, and its narrative supported the outcome rating and available evidence. The latter was strong for maternal and child health related outcomes but poor for infectious diseases and Ebola emergency response. The ICR provided a candid critique of the project and aptly identified important gaps in the design and M&E related to improving the quality of infectious disease services. It offered useful lessons directly derived from project experience. The ICR was internally consistent and followed guidelines, except for a lengthy and repetitive main text of 47 pages.

a. Quality of ICR Rating Substantial