1. Project Data

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Prepared by: Salim J. Habayeb  
Reviewed by: Judyth L. Twigg  
ICR Review Coordinator: Joy Behrens  
Group: IEGHC (Unit 2)

2. Project Objectives and Components

a. Objectives

According to the Financing Agreement dated 3/15/11, the objectives of the project were to improve access to, and utilization of, a package of maternal, neonatal and child health services in selected governorates with a high concentration of districts with poor health indicators. The statements of objectives in the Financing agreement, Project Appraisal Document (PAD), and ICR were identical.

b. Were the project objectives/key associated outcome targets revised during implementation?
No

c. Will a split evaluation be undertaken?

No

d. Components

1. Improving Access to Maternal, Neonatal and Child Health Services (US$30.5 million; Actual: US$27.7 million).

   **Sub-component 1.1: Delivering outreach services** for maternal, neo-natal and child health services, including expansion of a population-based program of maternal, neo-natal and child health services in rural, urban and slum districts, and provision of drugs.

   **Sub-component 1.2: Upgrading first-level referral facilities** for health services, and providing community-based health services.

   **Sub-component 1.3: Supporting national public health campaigns**, including for nutrition and immunization.

2. Results-Based Monitoring and Evaluation (M&E) and Project Administration (Appraisal US$4.5 million; Actual: US$2.5 million).

   - Provision of goods, consultant services, and training.
   - Provision of operating costs for the project administration unit, outreach services, management, and M&E, including carrying out evaluations to measure the results of project interventions on access and utilization of services by women and children.
   - Support to two rounds of the national demographic and health survey.


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

   **Cost and financing.** The project was financed by an International Development Association grant of US$35 million. The actual cost at closing was US$30.22 million. The conflict situation, the cholera epidemic, and enhanced United Nations (UN) partners assistance were main factors for not fully utilizing the funds.

   **Dates.** The project was approved on 2/22/11, but became effective only on 1/20/12 because of the political crisis and suspension of disbursements to the country portfolio on 7/29/11. A Mid-Term Review was carried out on 8/14/16. The original closing date of 9/30/17 was extended on 8/31/17 by three months to allow the completion of project activities that had been affected by the cholera epidemic, specifically to allow the conduct of two outreach rounds, completion of health workers training, and
procurement of supplies and medical equipment (ICR, p. 51, Borrower’s comments). The project closed on 12/30/17.

3. Relevance of Objectives

Rationale

At appraisal, Yemen ranked 138th out of 179 countries in the Human Development Index (2008). Poverty was estimated at 42% of the population in 2009. Infant and child mortality and the maternal mortality ratio were among the highest in the region, and nearly half of children under 5 were stunted (ICR, p. 5). The objectives were consistent with the Country Assistance Strategy FY10-FY13 under its third objective to foster human and social development (ICR, p. 14).

At project closing, the development objectives remained fully relevant to the current Country Engagement Note (CEN) FY17-FY18, which defined two objectives: (1) provide emergency support to preserve local service delivery capacity to support conflict-affected families and communities; and (2) prepare for post-conflict recovery and reconstruction, with due attention to state and institution building and laying the foundation for a more inclusive and resilient development framework in the future. The project was included as an integral part of CEN activities under the CEN first objective to preserve local service delivery to support conflict-affected communities. The CEN (p. 17) stated that the Yemen Emergency Crisis Response Project being presented to the Bank’s Board builds on the positive experience of implementing the Bank’s health portfolio through UNICEF and the World Health Organization (WHO) and will finance emergency interventions to ease the impact of conflict on the welfare and livelihood of affected households and communities with a particular focus on women and youth.

Rating
High

4. Achievement of Objectives (Efficacy)

Objective 1
Objective

Improve access to a package of maternal, neonatal and child health services in selected governorates.

Rationale
It could be reasonably expected that the provision of a basic package of health, nutrition and population services in both health facilities and outreach service rounds, and the provision of essential drugs, medical supplies, equipment and training, would increase the availability of child and reproductive health and nutrition services as well as the number of beneficiaries, all of which could plausibly result in increased access to maternal, neonatal and child services in project areas.

Note on the need for outreach services: Since most of the population was living in rural areas and only 50 percent of the population had access to services at fixed facilities (ICR, p. 7), outreach services were organized to reach the targeted populations using mobile teams and special vehicles. Such services built on the successful prior experience of GAVI’s immunization program and that of the Expanded Program on Immunization. Outreach services to deliver primary health care also supported functional integration of seven health programs: immunization, reproductive health, malaria, tuberculosis, schistosomiasis, Integrated Management of Childhood Illnesses, and nutrition.

**Intermediate results**

- The number of outreach rounds conducted in target areas aggregated at 385 rounds, short of the target of 400 rounds.
- The number of women of reproductive health age who were reached by outreach services was 289,124 women, exceeding the target of 70,000.
- The number of under 5 children who were reached by outreach services was 291,302 children, short of the target of 350,000.
- The number of health facilities equipped to provide emergency obstetric and neonatal care, nutrition therapeutic feeding, and outpatient therapeutic program services aggregated at 73 facilities, exceeding the target of 60.

**Outcomes**

- The number of persons with access to a basic package of health, nutrition and reproductive health services in target areas increased from a baseline of 0.9 million in 2010 to 2.3 million in 2017, just short of the target of 2.5 million.
- The number of direct project beneficiaries amounted to 1.89 million in 2017, exceeding the target of 450,000.
- The percentage of direct female beneficiaries (among all beneficiaries) reached 64% in 2017, short of the target of 75%.

**Rating**
Objective 2

Objective

Improve utilization of a package of maternal, neonatal and child health services in selected governorates.

Rationale

It could be reasonably expected that the provision of a basic package of health, nutrition and population services in outreach rounds and equipped health facilities, essential drugs, medical supplies, equipment and training would promote basic health services, vaccinations, women utilizing ante-natal care, and contraception. Outreach activities were also intended to increase demand. They were complemented with community-based services focusing on health education, active case finding, and referral by Community Health Volunteers, in addition to home-based delivery by midwives. In turn, all of the above elements in the results chain could plausibly result in improved utilization of maternal, neonatal and child health services in project areas.

Intermediate results

- 6,568 health personnel were trained, exceeding the target of 2,000.
- The number of vaccinations aggregated at 686,535, and, considering six vaccine-preventable diseases included in the Expanded Program on Immunization, this number translates into an estimated number of fully vaccinated children of 114,422, exceeding the target of 100,000.
- The number of screenings by mid-upper arm circumference in target areas was 228,741, and a child was expected to be screened 4 times in a year.
- The number of ante-natal care visits was 262,140, and, considering an optimal number of 5 visits per woman, the estimated number of pregnant women who received ante-natal care was 52,428, exceeding the target of 30,000.
- The number of pregnant women and those of reproductive age who were vaccinated against tetanus (TT2) in target areas was 17,257, short of the target of 30,000.
- The number of women receiving modern contraceptives in target areas was 115,612, exceeding the target of 30,000.

Outcomes
• The percentage of women of reproductive health age in target areas who had an ante-natal care visit increased from a baseline of 7% in 2010 to 36% in 2017, exceeding the target of 20%.
• The percentage of infants vaccinated with Pentavalent vaccine 3/Polio 3 in target areas increased from a baseline of 85% in 2010 to 93% in 2017, exceeding the target of 90%.

Rating
High

Rationale
The aggregation of one almost fully achieved objective with one fully achieved objective indicates a Substantial overall efficacy rating.

Overall Efficacy Rating
Substantial

5. Efficiency

The PAD’s economic analysis (p. 95) estimated costs and benefits under three scenarios for the purpose of comparisons: Fixed facility only; (ii) Fixed facility + immunization outreach; (iii) Fixed facility + immunization and maternal care outreach. The PAD calculated net benefits generated on an incremental basis within the project period 2010-2016. The analysis used a social discount rate of 3%. The PAD did not show estimates under higher discount rates. The results indicated that the second scenario, which included outreach immunization services, was the most favorable with a net present value of 89.5 million Yemeni Riyals and an economic rate of return estimated at 53%. Also, a cost-effectiveness analysis, using ratios under different service utilization rates, concluded that the project would be more cost-effective with outreach interventions rather than with fixed facilities only (PAD, p. 99).

The ICR carried out a cost-benefit analysis and estimated the benefits accrued from maternal mortality and stillbirth, contraception, immunizations, and increased productivity of trained health personnel. The costs were estimated for the period 2011 and 2018, while benefits were estimated from 2011 through 2021. The analysis used a 3% discount rate as in the PAD, and stated (ICR, p. 19) that the rate of 3% was consistent with similar contexts to reflect time preference and risk premium. The net present value was estimated at of US$143.67 million, the benefit cost ratio at 48, and an internal rate of return at 202.7%. The ICR did not provide a sensitivity analysis that would have shown estimated values under higher discount rates.
There were shortcomings in the efficiency of implementation, many of which were related to the political crisis. Project effectiveness was delayed by 11 months, and there were two suspensions of disbursement in 2011 and 2015 for a cumulative period of 15 months. In 2015, and in view of the deteriorating security situation, OP 7.30 on Bank policy for dealing with de facto governments was triggered. However, the project benefited from a policy exception to lift the disbursement suspension in December 2015. The presence of credible UN partners in the country facilitated this policy exception. There were restrictions to operate the project administration unit due to the lack of operating costs and salaries for certain periods of time. Many facilities were at times non-operational or sustained damage because of the conflict. But within the broad context of overall efficiency, the project chose the right activities, and those activities were targeted at the right provinces (ICR, p. 21); the closing date was extended by only three months; and implementation inefficiencies did not fundamentally impact the planned implementation period or the project outcomes. Therefore, these shortcomings are considered to be moderate. As importantly, outreach services to underserved populations in fragile environments reflected good practice that maximized the use of all available resources, as previously indicated by prior outreach experience in Yemen (ICR, p. 6 and p. 11).

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:

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<th>Rate Available?</th>
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* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

Relevance of objectives is rated High as the objectives remain fully consistent with the Bank’s Country Engagement Note, and they continue to be responsive to the needs of the country. Efficacy is rated Substantial, as the project almost fully achieved its objectives. Efficiency is also rated Substantial because of favorable returns, but with shortcomings in the efficiency of implementation. Therefore, the overall Outcome is rated Satisfactory, indicative of essentially minor shortcomings in the project’s preparation, implementation, and achievement.
a. Outcome Rating
Satisfactory

7. Risk to Development Outcome

There is a risk that project outcomes may not be maintained because of the continued conflict situation, which also affects the country’s institutions. However, the government and international partners remain committed to the provision of basic health services. Since 2017, the Bank is providing support to the sector through the Emergency Health and Nutrition Project (P161809) of US$200 million, with two subsequent additional financings, to contribute to the provision of basic health, essential nutrition, water and sanitation services.

8. Assessment of Bank Performance

a. Quality-at-Entry

The project’s design supported the country’s Health Sector Reform Strategy (2000), which promoted outreach delivery services while concurrently strengthening fixed facilities. The design was based on available information on the health status of mothers and children, and the intent to gradually increase health care services to underserved populations in selected governorates (ICR, p. 30). Since most of the population was living in rural areas without, or with difficult, physical access to fixed health care facilities, outreach services were instrumental in facilitating the reach and provision of needed services to target populations (ICR, p. 7).

The project benefited from lessons learned both nationally and internationally. According to the PAD (p. 14), it also built on good practices from the Expanded Program on Immunization and district level planning. Past lessons included the importance of addressing access constraints as well as gaps in service delivery, and adopting a simple design. According to the PAD (p.p. 16-18), WHO, UNICEF, and the United Nations Population Fund (UNFPA) were engaged in technical aspects of project preparation and in the design of outreach services, and implementation arrangements, M&E, and financial management arrangements were adequately prepared. An independent technical and financial firm was planned to be engaged to verify the implementation of outreach services prior to disbursement. The results framework was well developed and adequately linked project activities with the stated objectives. Overall risks and mitigation measures were well identified at appraisal, including considerable risks related to political instability and unrest as also noted by the Country Assistance Strategy (PAD, pp. 22-24).

Quality-at-Entry Rating
Satisfactory
b. Quality of supervision

According to the ICR, Bank supervision remained effective despite a very difficult country situation. During accessible periods, the Bank team was able to adequately carry out field missions, and, at other times, when it was not possible to visit the country, the team identified alternative locations for undertaking ‘reverse’ missions in Jordan and Egypt (ICR, p. 26) with government teams and UN partners. The Bank team maintained its interaction with project administration through virtual meetings (ICR, p. 19). For fiduciary matters, the team maintained electronic communications with the project administration unit and with UN agencies that had a leading role in drug procurement (ICR, p. 26). The Borrower noted the importance and relevance of the team’s implementation support (ICR, p. 52, Borrower’s comments) in facilitating the work of the Ministry of Public Health and Population (MoPHP) and updating its action plans during project implementation.

The team carried out a Mid-Term Review on 8/14/16 to assess challenges and progress, including through joint field visits and task group meetings with government and UN counterparts. The Bank team was proactive in obtaining a policy exception to lift the project’s disbursement suspension to maintain essential services for vulnerable populations, and in nurturing continuous coordination with UN partners (ICR, p. 32). The team was also pro-active in developing new agreements between the project administration unit and UN agencies: WHO, UNICEF, and UNFPA, and such agreements allowed UN agencies not only to procure essential medical supplies and medicines, but also to distribute them according to project plans, while also providing the necessary technical assistance for quality control, logistics, and distribution. This ICR Review recognizes the supervision team’s remarkable pro-activeness and flexibility.

Quality of Supervision Rating
Highly Satisfactory

Overall Bank Performance Rating
Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The objectives were clear and measurable. Outcome indicators were well aligned with the intended outcomes. Data were planned to be collected through the existing M&E system of the MoPHP. The project planned for an independent firm to be contracted for project evaluation, including a baseline
survey, mid-term survey, and end-of-project evaluation (ICR, p. 27). A household survey, exit poll module, and a Health Facility module were planned. Some baselines were not available at entry.

b. M&E Implementation

Data were collected, sometimes with delays, and were reflected in the Implementation Status Reports. WHO and UNICEF provided technical support in collecting and analyzing project data. The independent firm that was expected to assist in the surveys could not be contracted due to the conflict situation. A needs assessment of supplies and equipment for 74 health facilities was prepared by a consultant during the initial stages of the project (TTL clarifications, 11/1/18).

c. M&E Utilization

According to the TTL (11/1/18), project data were used by UN partners to undertake their own studies in maternal and child health. The MoPHP used project data for strategic dialogue with development partners and for prioritization, such as for community health workers, sustaining control efforts for schistosomiasis, and dealing with malnutrition.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

In view of the risks associated with handling and disposal of medical wastes, the project triggered safeguard policy OP 4.01 on Environmental Assessment and was classified as a Category ‘B’ project. An Environmental and Social Impact Assessment was prepared, including a management plan for dealing with health care waste: handling, segregation, storage, treatment and disposal. Monitoring and reporting were arranged at three levels: the central MoPHP, governorates, and districts. A report was produced at the central level after each campaign.
Outreach staff was trained on segregation and collection of medical waste, and safety boxes were provided for collecting hazardous waste. The project administration unit reported that good practice was followed in the implementation of vaccination campaigns, and that safe disposal of medical solid waste was followed to the extent possible. However, the ICR (p. 28) stated that it was not possible to validate reported practices and levels of compliance, as Bank staff were not allowed to visit sites due to the security situation.

b. Fiduciary Compliance

Financial Management. Compliance was adequate overall, although difficulties were encountered because of limited capacities and staff turnover. The project supported capacity building activities, including training of accountants and staff on financial procedures and the project operations manual. The project provided the necessary computers and equipment. According to the ICR (p. 30), staff of the project administration unit and MoPHP demonstrated resilience, as they continued to function (with delays) during periods of disbursement suspensions and conflict in the country (2011-2012 and 2015-2017), including for their follow up on financial statements and audits. The project administration unit issued quarterly interim financial reports and annual financial statements that were reviewed and audited by an independent external auditor. No mis-procurement was noted (ICR, p. 29), and all audits were found to be acceptable (ICR, p. 30).

Procurement. Procurement undertaken by the government and by UN agencies was adequate, but procurement processes experienced delays. Issues included incorrect preparation of procurement documents and filing, and difficulties in preparing technical specifications. There were delays in procurement approvals, and decision making was centralized. The suspensions of disbursement resulted in delayed payments to suppliers.

c. Unintended impacts (Positive or Negative)

None reported.

d. Other

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11. Ratings
### Ratings

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### 12. Lessons

The ICR (pp. 33-34) offered several lessons, including the following lessons restated by IEG:

**In countries with fragility, conflict, and violence situations, a focus on outreach services and human resources enhances the reach of service delivery to underprivileged populations.** The project tripled the number of trained health personnel over what was originally planned and developed a coordinated outreach model of service delivery to increase access and utilization of essential health services by targeted populations.

**Flexibility and alternative supervision arrangements in countries with fragility, conflict, and violence situations facilitate the Bank’s implementation support and oversight.** When the Bank did not have a physical presence in the country and could not organize field supervision missions, the Bank team intensified both virtual meetings and electronic communications, and organized ‘reverse’ missions in other countries where government and United Nations (UN) partners could attend.

**Leveraging the capacities of UN agencies advances project implementation.** The project initially used the support of UN agencies for the procurement of drugs and medical supplies. In view of the volatile country situation that limited implementation capabilities of the health sector, the Bank pursued the broadening of the role of UN agencies also to include implementation support on the ground and distribution of medicines.
13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR's narrative was clear and candid. Its analysis was thorough. The ICR explained and illustrated the theory of change in a convincing manner. It was aligned to development objectives. The quality of the evidence was adequate. The narrative and evidence supported the ICR's conclusions, but not for its high ratings of efficacy and efficiency. Lessons and recommendations were related to project experience and should prove useful to future projects in countries with fragility, conflict, and violence situations. The ICR's discussion in highlighting of the value of UN partnerships and the identification of alternative supervision arrangements was noteworthy. Actual project costs by component were not provided, and these were subsequently clarified by the TTL. The ICR was consistent with guidelines.

a. Quality of ICR Rating

Substantial