

1. INTRODUCTION: BACKGROUND AND CONTEXT OF THE PROGRAM

1.1 Country Situation

At 1,127,127 square kilometer, Ethiopia is the world's 27th largest country. The major portion of Ethiopia lies on the Horn of Africa, which is the eastern-most part of the African landmass.

Ethiopia has poor health status relative to other low-income countries. Attributed to preventable infectious ailments and nutritional deficiencies, infectious and communicable diseases account for about 60-80 % of the health problems in the country. The Health and Health Related Indicator of MOH indicates that malaria, intestinal parasites, respiratory tract infections and gynecological and obstetric complications are the major causes of outpatient visits at the health institutions. Widespread poverty along with general low income levels of the population, low education levels (especially among women), inadequate access to clean water and sanitation facilities and poor access to health services have contributed to the high burden of ill-health in the country. Average life expectancy at birth is also relatively low at 48 (47 for males and 49 for females). Poor nutritional status, infections and a high fertility rate, together with low levels of access to reproductive health and emergency obstetric services, contribute to one of the highest maternal mortality ratio in the world, which is 871/100,000 live births. Infant and under five mortality are 97/1000 and 140/1000 respectively as per EDHS, 2000.

Obstetric fistula is a childbirth injury resulting from unrelieved, obstructed labor that cuts off blood supply to pelvic tissue. As one national study involving 19,153 households had revealed untreated fistula prevalence was about 1.5 per 1000 in Ethiopia amounting to approximately 26,819 women. Most of the patients were young women who delivered for the first time. Marriage took place early in life mostly through family arrangements or abduction. The median number of days in labor was three to eight.

According to the baseline assessment report, Ethiopia has only 122 hospitals for a total population of 80 million. Moreover, the available hospitals are poor in their infrastructure and human resources. It is a common phenomenon to have a hospital without a single specialist sometimes without a general practitioner. The overall potential health service coverage in Ethiopia is estimated at 72%. However, this varies

substantially among the regions depending on their topographic and demographic characteristics.

Ethiopia is one of the countries with very low physician to population ratio (<1: 56,000). For nearly 80 million of its population, Ethiopia has around 1,421 physicians including the specialists. When we come to the specialists they are around one third of this figure. The saddest side of this is that almost 75% of them are concentrated in major urban centers while the rural people are deprived of the minimum specialist services they need. Women of reproductive age are disproportionately affected by the problem of lack of those specialist services in the rural areas. Poor referral facilities for laboring mothers, unable to afford for health care, poor quality of maternal health services, very high rate of obstetric complications, prolonged labor, obstructed labor, Intra Uterine Fetal Death and still births, obstetric fistula, sepsis both in laboring mothers and post partum mothers, infertility secondary to obstetric complications, serious morbidity, disability and death are common among rural women.

1.2 Program Overview

In Ethiopia there are about 122 hospitals and the ratio of 1 hospital is for about 688,748 people. The situation is worsened by the inequitable distribution of the physicians in urban and rural areas. There are only 1,421 physicians (1:56,000). Among these 605 are specialists (all level) of which only 106 surgeons, 77 gynecologists and 20 orthopedists working in government hospitals. (Health and health related indicators 2009/10). Almost 75% of them are concentrated in major urban centers especially in Addis Ababa while the rural people are deprived of the minimum specialist services they need. This indicated that there is a huge gap between the Ethiopian Health System and the Community. One of the major problems, which the services suffer from, is lack of adequate trained human resources, infrastructure and proper management. This is also more pronounced in the field of Surgery.

As a result of this and related factors significant proportions of surgical patients of rural hospitals have no choice than either self-referred or referred by physicians and travel to the central hospital to get a service. This is evidenced by the very huge number of patients in the waiting list in hospital records and backlogs on each of the cases in Addis Ababa hospitals. A preliminary assessment conducted in Black Lion hospital showed that currently there are over 900 orthopedics and 1500 general surgery cases waiting for elective surgery and 40% of them were referred from other facilities.

In response to this chronic gap in health service delivery, the clinical specialist outreach program (CSOP) was initiated in Ethiopia in 2006. This program seeks to reduce existing skills and knowledge gap in public hospitals and to facilitate specialist services and skill transfer thereby decreasing unnecessary referrals. The most important approach AMREF used to establish a mobile specialist team framework to build the capacity of health professionals at regional levels so that they will contribute towards efforts striving for sustainable quality health services at public hospitals which serve the rural population. The project was initially implemented for two years in ten (10) hospitals; it was then extended for another three years due to increased demand, by expanding to fourteen (14) hospitals with funding from “Generalitat Valencia” (the first 2 years) and “Madrid Regional Government” respectively through AMREF Spain.

1.2.1 General Objective

The main objective of the project was to improve access to specialized health services and strengthen women and civil society organizations

Specific objectives

SO.1. Strengthen the capacities of health professionals and specialized health services (reconstructive surgery and gynecology) with marked focus on obstetric fistula

SO.2. Support Civil Society through the strengthening of the Surgical Society of Ethiopia and Women organizations

1.2.2 Project Duration

Forty six months – from 1st of February 2009 to 30th October 2012. The total 46 months project includes the two non cost extension periods of six and four months respectively.

2. PURPOSE, OBJECTIVE AND SCOPE OF EVALUATION

2.1 Purpose of the Evaluation

The Clinical Specialist Outreach Project has been launched in 2006 with the objective of Strengthening Health Services delivery in Ethiopia through capacity building support to referral Hospitals. The Project has demonstrated (in one year period) a significant achievement. More than what has been mentioned is the momentum that the project has created among the Ministry of Health (MoH), surgical societies (SSE, EGOS), hospital managements and the community as well. The current project *“Up scaling Clinical Specialist Outreach program through continuing capacity building and enhancing gender issues, in Ethiopia”* aims in the same line but to up scale the capacity building approach to more hospitals and institutions so that effective and sustainable specialist health care services could be established. The “Up scaling Clinical Specialist Outreach program” project has been implemented in the time period of February 2009 to October 2012 with funding from “Madrid Regional Government” through AMREF Spain. The purpose of the present evaluation is to assess successes, shortcomings and replication of this model, as well as to analyze its potential to inform and influence decision makers in policy development for the implementation of similar approaches. The evaluation findings and recommendations will be used to inform the donors; organizations and governments and thereby to review and evaluate their partnership and support strategies. In addition, the report will help AMREF ET to adjust the strategy and maximize the impact and improve the design of other similar projects.

2.2 Evaluation Objective

The overall objective of the final evaluation is to make an overall independent assessment of the project performance, paying particularly attention to the outcomes of the project actions against its stated targets measuring its indicators. It is also to identify key lessons and to propose practical recommendations for follow-up and future similar actions.

Specific Objectives of the Terminal Evaluation

As stated in the Terms of Reference (ToR), the key objectives of the assignment include

- Review the relevance of the project and its approaches in the context of the development need and potential of the intervention areas;
- Verify the efficiency and effectiveness of the result achieved and trace the changes observed in the lives of the target beneficiaries,

- Critically examine the continuing validity of the assumptions on which the project's likely impact was based.
- Analyze sustainability of the project initiatives from the point of view of local stakeholders including target beneficiaries participation, institutional arrangements, compatibility of project objectives and target community need etc.
- Provide information on the conditions that should exist, required stakeholder participation, and other factors that should be in place to for the purpose of informing the design of future operations.

2.3 Scope of Evaluation

In general terms, the evaluation focused on assessing the Up scaling Clinical Specialist Outreach Project's current and potential contribution to the improvement of the specialized health services. Each evaluation criterion was analyzed from the perspective of assessing the project activities' implications on:

Final beneficiaries: patients, and health care professionals whose capacity has been built (including specialists, doctors, Anesthetists, Biomedical Technicians, Health Officer, Nurse and health facility managers)

Regional Referral Hospitals: Referral Hospitals, Universities, and Specialist Societies (SSE and Gene and Obis).

National and Funding Governments and NGOs decision-making level: national authorities and key stakeholders and AMREF ET.

Furthermore, with regards to the study area as it is clearly stated in the TOR, it was planned to be conducted on one hospital i.e., Black Lion Hospital. However, in order to have a scientifically acceptable evaluation report, the evaluation team has decided to conduct the assessment in two institutions; University of Addis Ababa Central referral hospitals (Black Lion Hospital and Yekatit 12 Hospital) and Adama Hospital; two Specialist Societies (SSE and Gene and Obis); and by reviewing project progress reports and other relevant documents.

3. EVALUATION METHODOLOGY

3.1 Evaluation Criteria

The Up scaling Clinical Specialist Outreach program project evaluation followed established OECD DAC evaluation criteria. Table 1 below summarizes those criteria.

Table 1: Evaluation Criteria

Criteria	Questions
Relevance	<ul style="list-style-type: none"> • Is the project's design adequate to address the problem(s) at hand & to realize the objective? • What internal and external factors have influenced the ability of beneficiary groups and (AMREF) to meet projected target? • Were the project objectives and design relevant given the political, economic and financial context? • What policy environment and the economic and political conditions have had an impact on the sector during the program implementation period.
Effectiveness	<ul style="list-style-type: none"> • Did the project reach the expected number of beneficiaries (individuals, local organizations, and local authorities)? • Are the beneficiaries satisfied with the quality and delivery services? If not, in what way did the service not meet with beneficiaries expectation and why? • What concrete improvements and changes have taken place [among the target beneficiary group, etc...] as direct result of the program? • How has the project contributed the towards project goal? • To what extent has the project contributed the capacity of beneficiary group, and local government...? • How could the project's impact have been improved?
Efficiency	<ul style="list-style-type: none"> • What has been the (AMREF) performance with respect to their projected performance indicators and agreed responsibilities with respect to project implementation? • Did the program achieve the targeted number of training project, seminars, dissemination workshops, etc.? • Provide a cost/benefit analysis of the delivery of such services and the efficiency with which (AMREF) provided them? • Provide information on the difficulties faced by the (AMREF) and action taken to overcome them (administrative, operational, financial, political or macroeconomic, etc.)
Impact	<ul style="list-style-type: none"> • Whether or not the project brought some improvement also in the management of health facility resources? • Whether or not the quality of care improved in your hospital/organization • Whether or not the number of patient waiting time (after registered in the waiting list) has reduced as compared with the situation before this project
Sustainability	<ul style="list-style-type: none"> • Will the project's effects remain over time? • Will the project's activities/services continue to be provided after the AECID funds have completely been expended? • What cost-recovery mechanisms has the (AMREF) established to ensure the sustainability of the project? • Did the (AMREF) devise a sustainability strategy/plan?

3.2 Evaluation Design

To translate the questions for the evaluation (as provided in the TOR, Annex 6) and the contextual issues, the Evaluation Framework was developed by the evaluation team structuring the issues and questions as indicators that can be measured or assessed during the evaluation (see Annex 4.1). The Evaluation Framework also identifies the sources of information and the methods the evaluation team applied, the range of documents reviewed and key informants to interview for each question. The framework has been seen as being part of a process rather than simply an end product to ensure there is clarity and agreement about what is required and how the evaluation structure and methodology are derived from that.

Apart from the Evaluation Framework the Project Results Framework (RF) (Annex 5) was used which demonstrates how project activities eventually results in achieving its objectives—kind of a road map that shows project’s final destination and how the project will get there. Therefore in order to assess attainment of stated targets for Project outcomes and outputs and Project’s contribution towards achievement of the higher level outcomes the evaluation has carefully assessed data provided in the RF.

3.3 Methodology

The evaluation methodology comprised a mix of site visits and observation, face-to-face semi structured interviews, desk-based research and review of existing reports, documents and secondary data. Summary of Methods are outlined below:

Desk Review: Review of documents was a major part of the evaluation. The list of documents reviewed by the evaluation team is listed in Annex 2.

Semi-structured Interviews:

Semi-structured Interview tool was used for the key Specialized Health professionals, Hospital management, Specialist Societies (SSE and Gene and Obis) and AMREF-Ethiopia project staff involved in the project. A selection of informants was chosen based on involvement in and understanding of the complex health care system and its relationship to the clinical specialized outreach program. The Interviews with clinical and program staff were conducted in a semi-structured manner, with questions based on the person’s experience, involvement in, and knowledge of the subject. The list of key informants is provided in the Annex 3.

Prior to visiting key informants, semi-structured interview topic guides were developed based on the Evaluation Framework (Annex 4.1) to help ensure systematic coverage of questions and issues. The interview topics have been selected around the evaluation

questions, but grouped and targeted according to the organization and/or individual being interviewed (Annex 4.1).

Appreciative enquiry – An approach that will seek to explore successes and positive experiences in dialogue with individuals and groups of people and have been applied in order to strengthen understanding of why something worked well, and how success might be replicated.

While designing the evaluation methodology, the evaluation team considered ethical issues and applied the following approaches:

- We tried to keep evaluation procedures (Semi-structured interviews) as brief and convenient as possible to minimize disruptions in respondents work process;
- To ensure that potential participants can make an informed decision we provided them with information about the purpose of evaluation and final outcome as well as on the process and duration of interview. The team also ensured respondents about the confidentiality of the source for obtained information and allowed them to refrain from answering the questions posed in case they felt uncomfortable to respond;
- Key informants were interviewed face to face without presence of other individuals.
- The evaluation team collected and analyzed information as well as reported findings accurately and impartially.

3.4 Data Source

The three major sources of data: people, site visits to a sample of hospitals and professional societies supported by the project and documents were used during the evaluation.

- **People** - Individuals were consulted through individual interviews;
- **Site visits** - three sites Black Lion Hospital, Yekatit 12 Hospital and Adama Hospital supported by the project were visited. The sites have been chosen by AMREF ET Office according to the following criteria: two hospitals in the capital city and one from regional hospitals. Furthermore, two sites from Specialist Societies: SSE and EGOS.
- **Documents:** List of reviewed documents attached to the report
- **Quantitative Analysis:** The team utilized quantitative analysis to examine changes in selected but comparable indicators from available data.

3.5 Limitations of Evaluation

The time allocated for the evaluation activities to be carried out on the one hand and the volume of evaluation activities on the other hand, limited team's choice for the sample respondent selection, sample size, data collection instruments and of the regions for the field visit. Therefore, the evaluation team developed specific selection criteria outlined in the evaluation methodology, based on which AMREF ET office selected Adama, Yekatit 12 and Black Lion Hospitals. However, the findings from the selected sites may not probably reflect the situation in the other project target sites. Another limitation of the given evaluation was the budget allocated for the evaluation. The team was bound to hold the key informant interview exercise with few and selected key informants.

3.6 Evaluation Team

The evaluation team comprised of three experts. Their role and responsibilities are given in the Table 2 bellow. Their professional backgrounds are described in Annex 7.

Table 2: Evaluation team composition, experience and responsibilities

Position	Name	Responsibilities
Lead evaluator	Assefa Belete MD, MPH	Evaluation team leader, responsible for overall design, planning and preparation of the document
Co-evaluator	Ephrem Assefa, BSC, MSC	Responsible for data collection, analysis and write-up
Co-evaluator	Mulugeta Zegeye, BSC, MPH	Responsible for reviewing training manuals, training reports, analysis and write-up

4. EVALUATION FINDINGS AND CONCLUSIONS

4.1 Relevance

Evaluation Questions

- *Is the project's design adequate to address the problem(s) at hand & to realize the objective?*
- *What internal and external factors have influenced the ability of beneficiary groups and (AMREF) to meet projected target?*
- *Were the project objectives and design relevant given the political, economic and financial context?*
- *Whether the policy environment and the economic and political conditions have had an impact on the [sector] during the project implementation period.*

4.1.1 Findings

This section examines relevance of the interventions from the following perspectives: addressing the problems at hand, examining the political, economic and financial context in the design and objectives of the project, identifies internal and external factors contributing to the achievements of the project targets, and examines the impact of policy environment and the economic and political conditions on project implementation. Evaluation findings presented below are derived from the information gathered from document review and the key informants and are structured in a way to provide answers to the questions outlined for the given criterion in the Table 1 and Evaluation Framework (Annex 4.1).

In terms of accessing and strengthening the capacity of health professionals at the regional and/or district hospitals with minimum medical equipment for specialized services, the project has proven to be relevant to address the problem. As it is discussed in the introduction part of this report, the significant achievement observed from the first project was the main reason for scaling up the CSOP project. However, despite the positive results from the first project, the baseline assessment report conducted on 24 hospitals depicted the existence of major gaps on community demand for specialized health service and the capacity of the hospitals to provide specialized health service, especially in 14 hospitals. Findings of this assessment report also revealed the existence of strong willingness of the hospitals to get support and host the clinical outreach programs. Hence, the relevance of the CSOP project could be seen from its demand-driven approach of the project. For instance, every outreach program was organized on the basis of the demand from the target hospitals for a specialized health service and/or a specified area of specialty. During the project period, AMREF ET/CSOP had mobilized volunteer specialists to 14 regional or zonal referral hospitals. In regards to the target hospitals, the adequacy of the intervention to address the problem could be evidenced by the number of times an outreach program has been organized to each of the target hospitals. Reports of outreach programs and annual reports reveal that, based

on the request of specialty areas from the regional and/or district hospitals, the CSOP has mobilized its volunteer specialists to each of the 14 target hospitals from 2 to 3 times per year and provided clinical services, on-the-job trainings and maintenance of medical equipment. Besides, the number of times per year the target hospitals have got support was on average three times when counted by the specialty area of the volunteer specialists involved in a single outreach program. However, given the skill and knowledge gap in hospitals at country level, it could be beyond the capacity of this project to adequately address the problem.

Despite designs put on paper, various unanticipated internal or external factors could enhance or hamper the implementation process of a project and thereby its objectives. Hence, the evaluation team of this report has identified internal and external factors that affected the project's ability to achieve its stated targets.

Among the internal factors that contributed to the successful achievement of the objectives include:

- During project implementation, all stakeholders (hospitals, health science institutions, ESOG, SSE, FDRE Ministry of Health and the project implementer AMREF ET) have participated in the preparation of annual plans and agreed on the role and responsibility of each stakeholder. This approach has enabled the project to have a transparent and smooth relation among stakeholders and thereby contribute to the achievement of the targets set in the project.
- The project implementation has been participatory during the selection of volunteer specialists for a given outreach program. That is, 'specialist volunteers' selection was decided in consultation with the health science universities, ESOG and SSE. Once the referral hospital to be visited was identified, a volunteer specialist with good reputation in and familiarity with the region and host hospital was selected. This has enabled the project to create smooth and friendly relationship among the volunteer specialists and the general surgeons in the host hospital. As a result, during each of the outreach programs, the specialists were able to transfer their skills while conducting surgeries for 33-60 patients in 3-5 days. In most cases, they were committed to working for stretched extra hours.

Among the external factors that positively influenced the project in achieving its targets include:

- The achievements of the first phase of '*The Clinical Specialist Outreach Programme*' has got AMREF ET a recognition from the Ministry of Health. This can be

evidenced by an incidence at a meeting in the Ministry of Health where issues related with specialized health service delivery were raised and referred to AMREF ET for consultation and support. This has served as a deriving force of cooperation and networking with various stakeholders for the project implementation and thereby achieving its targets.

- The spirit of volunteerism among the specialists participated in the outreach program has also contributed a lot to the target achievement.

On the other hand, the evaluation team has also identified some external factors that negatively influenced the project from exploiting the maximum benefit from the outreach programs. These include:

- The unavailability of such specialist as the General Surgeon, Gynecologists, Orthopedician and etc has hindered the volunteer specialists' capacity to fully provide the on-the-job training and conduct surgeries for patients residing in the regional referral hospitals.
- Even in some of the hospitals covered in this project, the lack of medical equipment necessary to conduct complicated elective surgeries, especially orthopedic surgery, has hindered the volunteer specialists from fully providing the on-the-job training and conducting surgeries to patients residing in the regional referral hospitals.

The policy environment and the economic and political conditions implication on the project implementation have been positive and supportive. That is, the overall and specific objectives of the project were set to contribute towards the attainment of national level targets of the policies and strategies of the health sector in the country. For instance, the *Health Sector Development Program IV (HSDP IV) of 2010/11 – 2014/15, of FDRE, MoH, Strategic Objective 5, (SO5): "Improving quality of health services"* states its targets (a) decrease average length of stay from 6.7 days to 5 days, and (b) increase proportion of referred patients completing referral process successfully to 80% throughout the referral process, that is from the beginning to the feedback. In addition, the other objective stated in the HSDP IV is "Improving human capital and leadership" (SO-13). For this strategic objective, the following targets have been stated: To increase the number of specialist doctors to 5,811 and the number of general practitioners (GPs) to 10,846 by the end of the strategic period. Thus, the above facts show us the extent the project was consistent with direction of the health sector policy of the country.

Besides, according to the implementation modalities discussed in the HSDP IV, the initiatives for the above strategic objectives are:

- Implementing quality management such as nursing standard, laboratory standard, infection prevention, medical record standard;
- Establishing Functional referral system;
- Strengthening systematic assessment and mobilization of local, regional and international technical assistance at all levels of the health system; and,
- Scaling up tele-education for accelerated training of high level HRH.

These are consistent with *The Clinical Specialist Outreach Programme* implementation modalities.

Furthermore, from the context of the economic and financial point of view, the project's relevance has been significant. The duration and cost of training for a general surgeon in a given specialty was incomparable with the time and cost of training through on-the-job training. And this was without affecting the services currently provided in the hospitals. From the perspective of the final beneficiaries of the project, *The Clinical Specialist Outreach Programme*, the project was more than relevant. The project's economic and financial relevance to the final beneficiaries can be explained through the money saved that otherwise could have been incurred for transportation and accommodation needed in order to get service at central referral hospitals like the ones in Addis Ababa, the monetary value of the working days saved for family members accompanying patients to such places, and the reduced hassles in their travel to and stay in Addis Ababa stay as well as going back to their home.

4.1.2 Conclusions

The following points reflect the relevance of the AMREFET-CSOP Projects:

- The commitment to provide specialized health services to rural communities and satisfying the huge demand in that line (reflecting the demand-driven approach of CSOP Projects);
- Closing the skill and capacity gaps in regional and zonal hospitals through on-the-job and off-the-job training programs; and,
- Positively influencing attitudes and orientations of the beneficiary community through the services provided by the concerned staff.

In general, the results of this evaluation clearly indicated the relevance of the intervention efforts in view of such perspectives as their importance in addressing the problems at hand, designing project objectives suitable to the existing socio-economic contexts, and properly identifying the internal & external factors affecting project success.

4.2 Effectiveness

Evaluation Questions

- *Did the project reach the expected number of beneficiaries (individuals, local organizations, and local authorities)?*
- *Are the beneficiaries satisfied with the quality and delivery services? If not, in what way did the service not meet with beneficiaries expectation and why?*
- *What concrete improvements and changes have taken place [among the target beneficiary group, etc...] as direct result of the program?*
- *How has the project contributed the towards project goal?*
- *To what extent has the project contributed the capacity of beneficiary group, and local government...?*
- *How could the project's impact have been improved?*

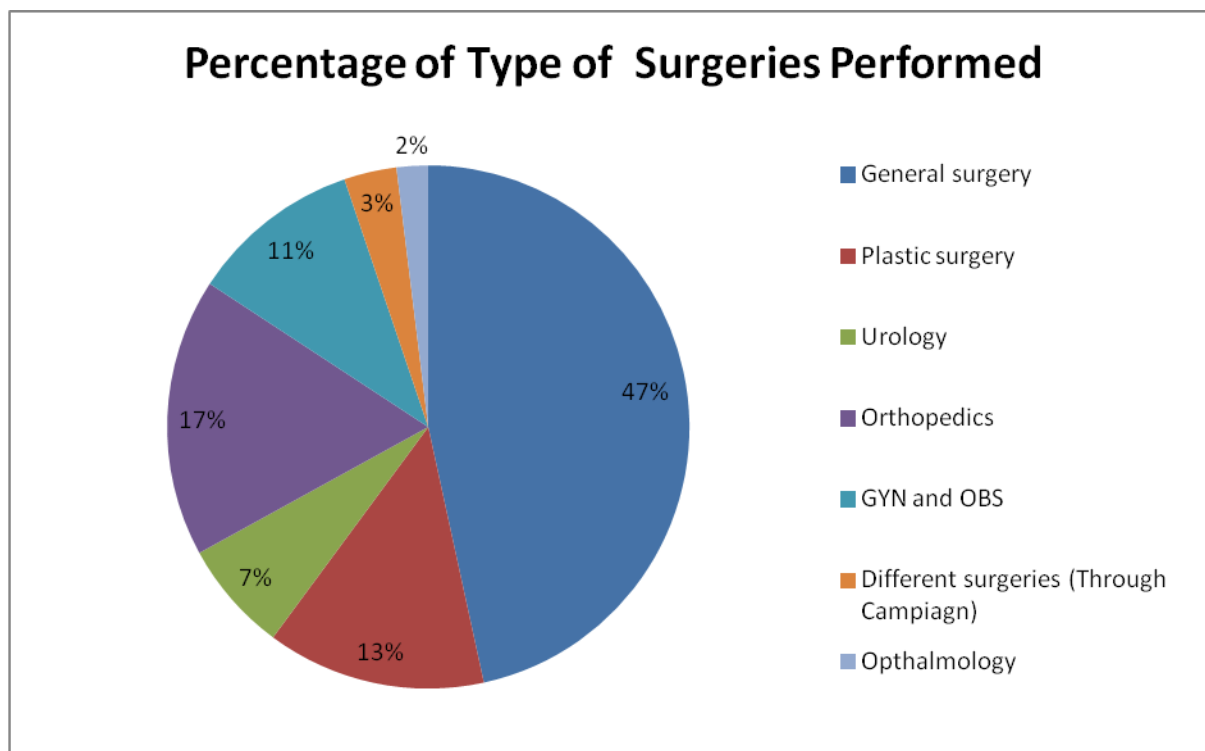
4.2.1 Findings

In evaluating the performance of the project, the evaluation team solely employed and reviewed secondary data from such documents as project annual reports, outreach program field report by specialist volunteers, campaign report of societies and health science university departments, training reports, baseline assessment report, project proposal and log frame of the project etc.

By the end of the project period, a total of 6459 (M=2503, F=2035) patients have received treatment. The volunteer specialists have performed surgeries for 2477 (M=1125, F=935) patients out of the total treated. Out of these surgeries, almost 50% of were general and 17% orthopedic surgeries. GYN and OBS surgeries accounted for 11%. In terms of the areal distribution, all the VVF cases operated were in four hospitals. The majority of the VVF surgeries (113 cases) were performed at Nekemt Hospital followed by Debre-Tabor and Durami Hospitals, where 72 and 64 VVF cases were performed respectively. The rest of the VVF surgery cases were performed at Arbaminch Hospital.

The details of the type of surgeries conducted are presented in the chart below.

Chart 1 Type of Surgeries Performed Percentile distribution



During the outreach programs, more than 152 volunteer specialists were mobilized according to the needs of the communities served by the hospitals. The surgeons conducted between 30-60 surgeries per outreach, greatly reducing the backlog of cases in the local hospitals and the pressure on the referral hospitals. (The details of the distribution of volunteer specialists mobilized can be seen from Annex 1.2).

Furthermore, AMREF has organized 101 visits to various hospitals around the country. However, the number of outreach visits¹ to the hospitals was varied: 11 times to Nekemt Hospital, 10 times to Arbaminch Hospital, 9 times to Metu Karl Hospital and only 1 visits each to Gonder, Hageremariam and Yirgalem Hospitals.

Although the evaluation team was not able to obtain data for all project target facilities, decrease in the average duration of stay has been reported by all the key informant interviewees and the project coordinators to be reduced in the areas where the outreach program has been operational. The contribution of the project to the effectiveness of quality of care through on-the-job training conducted, such as the trainings and lectures

¹ The number of outreach visits is counted by the specialty composition of volunteer specialists participated in a given outreach program. For instance, a given outreach program if the composition of the volunteer specialists is composed of P&R surgeon, Urologist and Orthopedic surgeon, it is counted as three visits.

conducted in the topics of infection prevention and control, had played a major role in reducing complications which if not addressed by the project would have resulted in delay of patients' early discharge and this in turn would have mediated for additional complications such as hospital acquired infections. The fact that the outreach program was performed by highly skilled and experienced clinicians have also contributed to the decreased average length of stay and reduced complications.

The project has also invested in the development of national and regional health professionals' capacity through providing training to general surgeons and other surgical and medical staff in the target regional referral hospitals. In each of the outreach programs organized, the volunteer specialists have provided both formal and on-the-job trainings.

The on-the-job training was comprehensive. That is, it comprised theoretical (2-3 hours lecture) and practical, where trainees operated patients on the presence and with support from the volunteer specialists. Generally, more than 1075 health professionals received both formal and informal trainings. The on-the-job trainings focus areas were orthopedics, urology, plastic and reconstructive surgery, anesthesia, basic operation room techniques, basic endoscopic technique and care, basic dental problems, ENT, basic radiology, internal medicine, vesico-vaginal fistula management and medical instrument maintenance and installation. Additionally, the project provided off-site trainings on infection prevention for health workers and vesico vaginal fistula (VVF) for gynecologists and their assistants.

Formal training sessions on different topics were organized for health professionals, government officials and community members. For health professional selected from outreach site public hospitals, trainings were provided on such topics as basic infection prevention and patient safety, obstetric fistula, operative care nursing for surgical ward nurses, operation room nursing care, and vesico vaginal and recto vaginal fistula. On the other hand, awareness raising training on prevention and message transmission to eradicate obstetric fistula was presented at different outreach program sites to women groups, government officials and health professionals. (The details of the distribution of professional trained can be seen from Annex 1.1).

The aim of implementing the on-the-job trainings to the health professionals in the target hospitals was the improvement of the quality of health service provided at the regional and/or zonal referral hospitals. The effectiveness of the on-the-job and formal training component in providing knowledge (theoretical skills) was assessed through the administration of a pre and post-test to the participants.

For instance, during the training on “*Basic infection prevention training for participants selected from public hospitals*” organized for health professionals selected from the 14 hospitals, a pre and post-test was administered to the participants. The major IP topics covered in the assessment of participants were fundamentals of infection prevention, processing instruments, gloves and other items, implementing IP in healthcare facilities, program management of IP, and nosocomial infections. The results demonstrated that the participants were able to improve their knowledge and skills. The result of the pre and post-test can be seen from the table below.

Table 3 Basic infection prevention training pre-and-post test Result

Score (out of 100)	Summary of the pre - test result Number of participants N (19)	Summary of the post - test result Number of participants N (19)
≤50	0	0
51 - 60	6	2
61 - 70	11	8
71 - 80	2	4
81 - 90	0	4
>90	0	1
Maximum score	80%	95%
Minimum score	52.5%	52.5
Average score	64.2%	72.3

Source: Training Report of Documents Reviewed

The CSOP was highly successful in improving the knowledge and skill of service providers but application of the new skills by the trained health providers during the on-the-job training was less than the expected level because of the lack of essential equipment, medicines support systems to fully apply the new surgical skills and guidelines. The identification and selection of patients needing the specialized surgical services by the local hospital staffs to be readily available on the schedule has improved and this facilitated the timely managing of patients present during the campaigns of the volunteer specialists arrival in the host hospitals. Nevertheless, there was shortcoming in the coordination efforts to sensitize the public short listed for surgical procedures. Thus, some specialists have not been able to utilize their services either due to the absence of patients or the insufficient number of patients appearing for the interventions to be carried out. The on-the-job training and lectures conducted by the specialists were the most effective in delivering knowledge and transfer of skills without staffs taking time off from their daily routine works.

The services (provision of consultation and surgeries) were provided for both women and children, in various disciplines like plastic and reconstructive surgery focused on post burn contracture, cleft lip and palate and burn, general surgeon like abdominal surgery, goiter, orthopedist hip replacement, club foot, urology difficulty cases like urethroplasty and other related cases and fistula, and utrine prolapse through gynecologists. In addition to the above mentioned, other consultations were given on internal medicine on malaria, Tb and HIV related issues and on such specialty areas as radiology, basic ultrasound principles, and on how to read X-Ray cases.

AMREF's program coordinator mentioned the following in its annual report:

"A case in point is the training given by the Urology surgeon in Adama Hospital. This surgeon provided cystoscopy and Optical training for three surgeons who are working in the hospitals for one week and these surgeons attended the training properly and have done the procedure under the observation of the mobilized specialist. During that time, 37 patients who had complicated urology problem got surgical treatment and consultation was given for other 55 patients. This training was one of the best training that the project has conducted."

The advocacy of AMREF has contributed to the buy-in of its strategy in providing surgical specialized services through the clinical specialist outreach program by MoH and other partners. This has been possible as AMREF was the pioneer of this strategy in Ethiopia. AMREF has been participating in technical working groups taking a lead in the development of surgical operating procedure manual to be utilized at national level.

AMREF's work plan was developed based on the results of the review of the needs of the hospitals, capacity assessment report, and the startup workshop where all stakeholders, MoH at national level, regional health bureaus and district health facilities took part. At the workshop, the focus areas of the clinical outreach services and trainings have been defined. AMREF has identified education and training as a particular priority, especially for non-specialist practitioners who practiced surgery and anesthesia. It has, therefore, developed different training manuals as a practical resource for individual practitioners and for the use in in-service training and continuing medical education programs. These manuals were successors of earlier publications widely used throughout the world and that still remain important reference texts.

Besides, in order to strengthen specialized health professional societies, AMREF ET or the project has sponsored annual conferences, provided financial support for surgical campaign and outreach activities organized by SSE, ESOG and AAU Surgery, Obstetric and Gynecology, and Orthopedics and Pediatrics departments. Through partnership

with AMREF ET, the Surgical Society of Ethiopia (SSE) has rolled a similar outreach program for its members effectively increasing the reach of the specialist services across the country. Annual meetings and clinical conferences have been promoted with the purpose of sharing experiences, stimulating coordination and collaboration through the continued support through funding from AMREF ET.

Participants of conferences and annual review meetings sponsored by AMREF found these meetings and conferences valuable to increase their knowledge and understanding of the issues discussed.

Key informant from SSE said:

“Only a limited number of people could have participated in these events because of resource constraints if the support from AMREF was not accessible”.

“A key informant suggested that establishment of mechanisms for sharing the gained knowledge or skills when returning home, as this was perceived as an essential and potentially cost-effective activity. The regional and zonal level health facilities could also be able to compare the experiences of different hospitals as well as to identify best practices so that each regions or zones do not have to “reinvent the wheel”.

Research efforts at country level have been mostly related to the elaboration of the country needs assessment or situation analysis. The CSOP have been useful to provide information to facilitate a better understanding of the dimension and epidemiology of surgical problems in the country.

In order to achieve its objective, the project used volunteer sub-specialists and specialists with special skills from the relatively more populated areas to provide desperately needed with clinical outreach services in the areas of general surgery, plastic and reconstructive surgery, orthopedic surgery, urology, ophthalmology, gynecology, pediatric surgery, neurology, radiography, and anesthesiology. The project mobilized these volunteers from urban centers to the selected hospitals where, due to lack of skilled human power, these services were not formerly available.

“This is evidence that through the creation of a sense of voluntarism among the health providers, the project was cost-effective in achieving its stated goals because it has utilized a low-cost program that could also be replicated by other stakeholders in the country”. A key informant from SSE

The project used an appointment system through which patients with cold case conditions requiring clinical specialist care were appointed for consultation by senior

physicians who were visiting the hospitals based on their predefined schedule. During their visits, specialists managed patients and trained full timer health workers in the outreach hospitals. Specific activities that were performed by mobilized physicians during their visit to zonal and regional hospitals include screening and diagnostic services even for patients scheduled for surgery, surgical intervention with on-the-job training for local staff and formal lecture to build the capacity of local staff and students practicing in the outreach hospitals.

The outreach missions were held every week, with each hospital in the program visited every three or four months. Specialists stayed in the hospitals for up to a week, dealing with cases ranging from plastic and reconstructive surgery, to urology, orthopedics and gynecology/obstetrics. At the same time, they transferred skills to local health workers in areas such as anesthesia, operation room techniques, endoscopy, dental care, radiology, internal medicine, and the maintenance and installation of medical instruments.

The achievements attained by the project would not have been possible without the strong project implementation team. The core AMREF project team was represented by a project coordinator and project officer at country office and field focal person at each hospital where the outreach program was conducted. The team at country office had regular communication with the field team to organize the mobilization of the outreach team from the university teaching hospitals and central referral hospitals to the outreach sites while the field focal person together with the rural hospital arranged the scheduling of patients in the waiting list communicating through telephone and contact address, or through preliminary screening of cases conducted by the surgeons and staff in the hospital or formally requested by AMREF or directly by themselves for the outreach team to come for the specialized service provision.

An overall program coordinator for the *Campaign* was appointed by AMREF-ET at the inception of the program. The coordinator was responsible to manage the overall activities of the program and supervise and coordinate the campaign as per its strategic plan.

A key informant interviewed described the coordination of CSOP as follows:

“Most of the time, coordination of the CSOP has been carried out with strong commitment, energy, quality and was conducive for a good collaboration among all parties. Although sometimes either due to communication failure or inadequate prior sensitization of program beneficiaries (patients from the community), patients in the waiting list may not arrive to the hospital and the outreach service specialist may not get adequate patients to be operated during

that campaign. This has created inconvenience for outreach specialists who returned back without providing services intended to be performed”.

This organizational set-up contributed not only to increased coordination and ownership of the *Campaign* activities but also to the greater knowledge and understanding of sub-specialty services within the Ministry of Health of Ethiopia and the hospitals in different regional states. It has somehow facilitated a vertical operation of the *Campaign*. In fact, a certain degree of verticality was probably necessary during the initial phase, as the specialist outreach campaign was a new initiative to be addressed within the organization. The coordination of the *Campaign* has encouraged the integration of outreach program activities with the overall government’s programs of the country. This integration would have important implications on the policy, program and services levels contributing to greater sustainability and lasting impact of the activities implemented.

The evaluation team was informed that, in part due to the financial shortages, the availability of funds has been more constrained than in the previous years. This has resulted in de-motivation of some support staff in the hospitals who had to face increased workload resulted from the increased flow of patients to access this specialized services.

A careful transition planning was required in order not to bring activities to a standstill and lose the momentum gained. Equally important was that, during the transition period, it was possible to secure smooth continuity and preservation of the institutional knowledge at program delivery, policy and services levels gained through the implementation of the *Campaign* activities.

This is mainly due to the major bottle necks identified which were and still hindering the provision of specialized health service at the regional hospital. There was lack of essential equipment, medicines and support systems to fully apply the acquired skills during the CSOP. Absence of supportive environment was due to the lack of either the district hospital management’s ownership, leadership capabilities, knowledge and understanding of the importance and benefits of the CSOP or other competitive needs to be addressed, or the lack of leverage to mobilize the required resource.

Key Informant at Adama hospital said:

“Similar to other district hospitals, Adama hospital is facing challenges related to inadequate or lack of medical equipment, the hospital has a very old and outdated operation theater with only two operation tables to perform both emergency and elective surgeries. During the outreach programs organized by AMREF based on the demand of the hospital, as a result of the limited operation tables available in the hospital, because patients who were in the

waiting list to get their life time chance for the specialist surgery, the elective surgeries had to be cancelled and if emergency cases like pregnant women in need of caesarian section comes, those in the waiting list for the specialist surgical intervention have to be postponed”.

4.2.2 Conclusions

In order to assess the effectiveness of the AMREFET-CSOP Projects, the evaluation considered various points including the project’s achievement in reaching and satisfying the expected number of beneficiaries, providing services of the right quality, bringing concrete improvements on the target beneficiaries, and positively contributing towards project goals.

As such, the findings and conclusions of the evaluation indicate that:

- The projects have contributed a lot to the effectiveness of quality of care through the on-the-job training conducted, such as the trainings and lectures on infection prevention and control, which played a major role in reducing complications hence avoiding delay of patients early discharge.
- The on-the-job training and lectures conducted by the specialists were the most effective in delivering knowledge and transfer of skills without staffs taking time off their daily routine works.
- The advocacy of AMREF has contributed to the buy-in of its strategy of providing surgical specialized services through the clinical specialist outreach program by the MOH and other partners.
- The projects have been useful to provide information to facilitate a better understanding of the dimension and epidemiology of surgical problems in the country.

4.3 Efficiency

Evaluation Questions

- *What has been the (AMREF) performance with respect to their projected performance indicators and agreed responsibilities with respect to project implementation?*
- *Did the program achieve the targeted number of training project, seminars, dissemination workshops, etc.?*
- *Provide a cost/benefit analysis of the delivery of such services and the efficiency with which (AMREF) provided them?*
- *Provide information on the difficulties faced by the (AMREF) and action taken to overcome them (administrative, operational, financial, political or macroeconomic, etc.)*

4.3.1 Findings

This section of the evaluation report examines whether the programs have been used efficiently in order to achieve the project outputs.

The original budget for the three years project life was 355,110 Euros, which was made available by the donor. According to the information obtained from the key informant interviews of the country office project managers, the project was flexible to shift budgets within its limit through cost efficient manner to accommodate request from the benefiting health facilities for expanding its coverage area and increasing the number of outreaches set during the initial project proposals' planning process.

The detailed evaluation of the efficiency of the resource use was constrained by two main factors. Absence of the programmatic budget limited evaluators' ability to analyze the resource use against project activity outputs and outcomes. Although there was possibility to work out main costs of interventions for further analysis and comparison with the costs of similar activities supported by other donors or projects, performance of this exercise was not possible due to time and resource intensity of the task and the evaluation time constraints. Despite the above outlined limitations, the evaluation team managed to roughly analyze training costs. Although alternative information on the training costs from other partners were not available, the evaluation team thinks that the project's training cost ranks minimal makes the program cost effective and reputable in the future as the trainers were volunteers, the trainees were residing in their vicinity, there was no extra expenditure for travel cost, and the overtime fees was minimal as the modality of skills transfer was done through on-the-job training.

On the job training has been deployed by the project in order to use available resource in the most efficient manner as well as targeting critical mass of health professionals to be trained with the outreach CSOP package. The given approach worked effectively and served the purpose of creation of critical mass of trained health providers who were be able to practice the skills obtained from the volunteer specialists hence reduce the cost of travel and referral to patients in the local hospitals. Training materials and guidelines adopted by AMREF has been retained in the hospital for future use and references. Due to limitation of time faced by the outreach specialist services, follow-up after skills transfer and on the job training were not possible to conduct. Thus absence of follow up and supervision after skills transfer by specialists to local health providers fails to meet the cost efficiency criteria where improvement in practice against resources spent is compared.

Though the findings from the key informant interview revealed that support staffs in the surgical departments such as anesthetists and nurse complained of the limited fees

they got during the operation of the campaign despite an increased workload and working during weekends without extra fees. This might have had a negative repercussion for the sustainability of the work in the absence of donors.

Medical equipment technologist was mobilized to target hospitals. In these visits the technician maintained different medical equipment not functional for long period of time. Besides to the above activities, training was provided for junior technicians. These efforts have enabled the rural hospitals from recurring costs for maintaining and repair of the medical equipment and provision of training the local technicians at their duty stations was a cost-efficient way of implementing the project.

Patients have accessed the specialized care in the local hospitals through the CSOP. This has been cost efficient to the beneficiaries in terms of reducing their direct and indirect expenditures. The awareness creation campaign has resulted in increased the demand for accessible and affordable care in the local health facilities, hence patients would easily access the service both during the campaign weeks and after; because of the skills transfer the hospitals are able to perform the surgical procedures which they have not done before the CSOP. The availability of equipment and provision of maintenance services to medical equipment by AMREF and its partners have also reduced the extra cost for buying new medical equipment and also reduced referral of patients to higher specialist centers since the tools are made available during the outreach clinical service provision.

4.3.2 Conclusions

Considering relevant indicators, the evaluation tried to assess the efficiency the AMREFET-CSOP Projects in achieving the targeted outputs. In this regard, variables pertaining the projects' performance (against the established performance indicators), the number of training, seminars, etc. covered, its cost-benefit balance, its track record in providing information regarding difficulties (and solutions applied)in running the project were applied.

The evaluation results show that the project performed at an acceptable level of efficiency. In more specific terms,

- The on-the-job training provided to the critical mass of health professionals has helped in the efficient utilization of human resources with basic skills. This reduced cost of travel and referral to patients while at the same time it helped in expanding the CSOP outreach efforts.

- Training materials and guidelines adopted by AMREF have been retained for future use, reducing redundancy of expenditures.
- The undertaking of maintenance of Medical equipment by mobilizing technologists to various localities and provision of training to local technicians has helped rural hospitals avoid recurring costs and thereby build cost-efficiency.
- The practice of enabling patients to access the specialized care in local hospitals through the CSOP has helped them reduce their direct & indirect costs.
- The availability of equipment & provision of maintenance by AMREF and its partners also increased efficiency by reducing procurement costs of new equipment.

But, some gaps are also observed in this aspect. The following point has to be considered in this aspect.

- Lack of follow up (on the job) training from specialists to local health providers has limited skill transfer adversely affecting the project in meeting the efficiency criteria.

4.4 Impact

Evaluation Questions

- *Whether or not the project brought some improvement also in the management of health facility resources?*
- *Whether or not the quality of care improved in your hospital/organization*
- *Whether or not the number of patient waiting time (after registered in the waiting list) has reduced as compared with the situation before this project*

4.4.1 Findings

The aims and potential benefits of the clinical specialist outreach program conducted in rural district hospitals could be related with offered specialized services in central/teaching hospitals, improved access to specialists and hospital-based services, improved liaison between specialists and general surgeons and doctors working in district hospitals and the benefits of consultations in primary care settings, such as familiarity and less stigma for patients and fewer distractions for providers. The potential costs has been related to additional costs of service provision, the inconvenience for traveling specialists, and opportunity costs associated with taking

specialists out of their main practice and with further investment in specialist medical services as opposed to other sectors.

The CSOP was a “multifaceted outreach”, an outreach program that was enhanced by increased collaboration with primary care practitioners, joint consultations, case-conferences, seminars or other education sessions, or is part of a broader intervention involving other personnel, services and medical supplies/equipment maintenance. Because of the service component package it had, these made the cost to be effective and have a wider impact in addressing the issue of strengthening health system. The outreach program have led to improved communication between GPs and specialists, improved patients’ experiences and better access, but at greater cost and with less efficient use of specialists’ time.

Policy decisions confronted in the management of available scarce health resources were often not just about whether to provide specialist outreach services, but also how much to invest in specialist services at all, as opposed to other services, including primary health care. Although there is little supporting or refuting evidence, multifaceted specialist outreach may in fact be a means for both improving access to specialists and bolstering local primary health care services. Thus, the clinical specialist outreach program was a multifaceted outreach program addressing varieties issues at a time with a low cost. The impact it has brought is an evidence for decision making bodies and stakeholders to replicate the program.

The health care providers in the host hospital’s outpatient clinics provided triage consultations, and all treatment was carried out at a later date during the outreach schedule when the specialists arrived in the rural hospitals. Because prior patient selection and triage mechanism was in place, the total time spent by both the specialists and the patients waiting for the specialized services was shortened, acceptance for the service provision by patients and general public was increased, costs based on overheads and repeated travel cost for referrals was reduced and appropriate referral was maintained.

A key informant cited the impact of CSOP:

“Specialist surgical practitioners usually consult in outpatient areas of major hospital facilities or large metropolitan private run clinics. These ‘specialist outreach’, have contributed to improved access to specialist care, enhanced primary-specialist care relationships, reduced pressures on hospitals, partly shifted the balance of care to rural-based services, or reduced health service costs for patients and improved quality of care and health outcomes”.

Key informants have cited improved basic obstetric services during the clinical specialist outreach program to be the best way to decrease the need for complex

obstetric care. Sites with capacity for providing uncomplicated obstetric surgeries lacked support, with operational capacities often limited by shortages in relatively inexpensive items, such as sutures and operating room equipment. Thus the basic medical supplies brought in by the outreach specialists while visiting those rural hospitals and the equipment maintenance provided by the biomedical technologists have contributed to the continuing services in the rural hospital. And this had an impact in life saving efforts through the provision of basic tools.

A key informant cited:

“The consequences of fistulas (which do not heal by themselves) are devastating. The young afflicted women are drenched in a continuous flow of urine and feces over which they have no control. Their skin becomes excoriated and they develop painful ulcers in their most private and sensitive areas. In spite of their best efforts to keep themselves clean, they emit rank, offensive odors which cause them to become isolated pariahs even in the most impoverished villages. These tragic circumstances – which begin with a stillborn child –lead to involuntary divorce, isolation from family, ostracism by society, deepening poverty, malnutrition, worsening physical health, and a life of unimaginable despair that sometimes ends in suicide. Because fistulas are not fatal in and of themselves, most of these victims live to an advanced age in this isolated and horrific condition. Through the intervention of fistula repair by CSOP, these women are able now to live a new life free of stigma and devastated life.”

When compared to referral to hospital clinics, joint consultations between a visiting specialist orthopedic surgeon and general practitioners simultaneously in their primary care practice reduced unnecessary interventions and referrals.

Rural communities had possibly the most to gain from outreach in terms of client outcomes. The fact that specialist services were usually disproportionately concentrated in major urban centers results in access inequities and could justify the fact that rural populations were usually less healthy in resource-poor countries.

4.4.2 Conclusions

The project’s impacts were evaluated by primarily focusing on factors such as the improvements gained on facilities & resources management, improvements on quality of patient care services, and improvements on patient waiting time.

The following findings and conclusions indicate the positive impacts of the AMREFET-CSOP Project.

- Through building collaboration with primary care practitioners, providing medical equipment/supplies and services, the 'Multi-Faceted Outreach' nature of the project has helped strengthen the health system.
- More specifically, communication between GPs and specialists improved patients' experiences and better access, except it was achieved at higher costs.
- Through installing mechanisms for prior patient selection and triage consultation, the total time spent by both specialists and patients for the services was shortened.
- Continuity of services in other wise in adequately supplied rural health facilities was ensured through the provision of medical supplies and services through the project's outreach programs.
- The project also contributed in balancing the inequities of access to specialized health services among local communities.

4.5 Sustainability

Evaluation Questions

- *Will the project's effects remain over time?*
- *Will the project's activities/services continue to be provided after the AECID funds have completely been expended?*
- *What cost-recovery mechanisms has the (AMREF) established to ensure the sustainability of the project?*
- *Did the (AMREF) devise a sustainability strategy/plan?*

4.5.1 Findings

Sustainability is concerned with measuring if the benefits achieved by the project activities are likely to continue should support be withdrawn.

In regards to aspects of sustainability, and in regard to the specific objectives of the project, that is to "*Enhance the capacity of referral hospitals for sustainable specialist service provisions*", the evaluation team, based on the evidence it has collected, has found out a mixed result about its sustainability as measured by the projects ability to mark long-term effect. The project has been able to mark long-term effect at individual level (that is general surgeons, nurses, health officers) who had gained skill and knowledge for themselves and could utilize these wherever they go as staff turnover is high in the country, but lacked in terms of creating long-term effect at institutional level.

There is evidence that at individual level the project created an effect that remained over time. Some of these include:

- The general surgeons at regional referral hospitals benefited from the on-the-job training by the clinical outreach program have been able to build confidence to conduct surgeries before the training.
- The project implementation has been participatory, that is specialist volunteers' selection was decided in consultation with the health universities, ESOG and SSE. Once the referral hospital to be visited is identified, the volunteer specialists who have familiarity with region and host hospital, and good reputation were selected. This process has enabled the project to create smooth, friendly and sustainable linkage among the volunteer specialists and the general surgeons in the host hospital. As a result, in case of encountering complex cases, the general surgeons in the referral hospitals call the volunteer specialists for consultation until now.
- Furthermore, selecting volunteer specialists who had good reputation and familiarity with the region and host hospital has improved awareness within the community about the services provided at the hospital and thereby increased the demand for health service for the hospital. This has contributed for the continuity of the specialized health service delivery.

On the other hand, evidences show that at institutional (hospital) level, the project has gaps in terms of creating long-term effect. The evaluation team has identified the major deterrent factors for the gap. Some of the factors were external while some were internal.

- There is a severe shortage of medical equipment necessary for the operation in the referral hospitals. Even if the general surgeons have acquired the skill to conduct surgery on some cases which were not conducted before the on-the-job-training the severe shortage of medical equipment necessary for the operation in the referral hospitals has limited the continuity of the service. Because of this, during the outreach program the volunteer specialists were using medical equipment they took with them.
- In addition to this, the outreach program was able to address the backlogs at referral hospitals. For instance, the project has been able to reduce the waiting time of patients from more than one year to less than 3 months, even in some cases the waiting time was minimized up to 3 weeks. However, after the clinical outreach program phases out the backlog has increased in to its pre-project level. For instance, during the data collection period the evaluation team has learned

from Adama Hospital patient waiting list record there are around 2000 patients waiting for surgery.

With regards to the other key indicators on project sustainability criteria such as *whether a cost-recovery mechanisms has been established to ensure the sustainability of the project and/or whether the project has sustainability strategy/plan* the evaluation team both from the desk review and key informant interview has found no evidence about established cost-recovery mechanism and/or project exit strategic plan. However, due to the nature of the project, project implementation modalities employed, achievements and other external factors, the project has able to get strong recognition both by MOH and other stakeholders and create sense of ownership.

MoH ownership is present in all project components. Integration of the project strategic directions in the higher level national policies served as a prerequisite for the sustainment of MoH ownership and leadership in promoting specialized surgical services at all hospitals. Active involvement and participation of major stakeholders of AMREF, the Ministry of Health (MoH), selected hospitals and universities, specialist societies (SSE and ESOG) during the initial stage of the proposal development by providing significant inputs towards the plan of implementation was an indicator towards sustainability of the project.

A conference was conducted by SSE in collaboration with AMREF in Ethiopia and the Ministry of Health. During this conference, the achievements already made through the Clinical Outreach Project of Ethiopia was presented and concluded through offering areas for future actions and on how the project would be integrated into the health system in the country. Concerning the criteria to be used in selecting the targeted hospitals and availability of surgeons/specialists, patient load, number of annual outpatient attendees, number of annual operations, availability of operation room facilities, ten top causes of hospital admissions were discussed by stakeholders, which indicated the interest of stakeholders to involve and participate in the project.

Ownership at local levels is uneven. Even in those hospitals where the ownership is strong, health managers had limited leverage to mobilize resources in support of the implementation of the clinical specialist outreach programs. This problem cannot only be attributed to the work leadership of certain health facility managers rather to the budget formulation process established in the country which limited local authorities to influence budget allocations. As a result, during outreach activities which extended beyond the ordinary working hours, health workers especially nurses and anesthetists were not paid for their extra time work they have already done. Systems in place cannot

function effectively without adequate funding and it is difficult to sustain unless there is a deeply rooted volunteerism among the health providers in the country.

Although, stakeholders participation and engagement were considered to be vital for the sustainability of program, little or no actions were taken by the MoH and other health-related state organizations and local administrations on the key challenges discussed at various review meetings.

The medical services department at the MoH has been involved in this project by facilitating and coordinating the implementation of the project and also planning and starting similar initiatives as AMREF. The MoH at national level have given due recognition to the efforts done by AMREF and its partners the SSE, EGOS and University teaching hospitals, considering the absence of the specialists from their regular duties during the campaign period as normal duty time.

The MoH at national level has also taken initiative to support the mission of AMREF in medical equipment maintenance by creating a center for biomedical technology that would in the future equip all hospitals at regional/district level with medical equipment and assist by the provision of maintenance of equipment. The MoH at national level needs to take the experience from AMEF's CSOP and give accreditation to those who have gained skills and competencies in specialized services; integrate this skills transfer through on-the job training into pre-service training to fill the existing gaps in human resource for health in the country with special emphasis to surgical specialist trainings. Ownership at local level is limited, thus hospital management bodies have limited leverage to mobilizing resources to support the CSOP. The evaluation revealed that effective implementation and continuity of specialist services is jeopardized due to lack of resources that would enable the local hospitals to perform their duties in a sustainable manner after the support of donors stop.

Key informant interviewees revealed gaps along the continuum of care were observed after the donor support ceases. Due to lack of appropriate medical equipment, not all facilities previously getting support from AMREF have supportive environment to apply the skills they have gained. Currently the practicing trained general surgeons show high moral and motivation which are mainly sustained by the enthusiasm of applying new skills, better relationship with patients that showed gratitude for the improved specialist services.

The health providers, specially the general surgeons were very satisfied on the outreach specialized services provided because they have an impression that they have taken a skill transfer that enabled them to perform similar intervention free of supervision, which resulted in confidence development. This may indicate that continuity of service could be a means for sustainability of the service.

However, in the long run motivation of staffs in the local hospitals showed deteriorations and high rates of trained staff turnover was seen, especial because basic and necessary changes were are not taking place, such as lack of introduction of financial and nonfinancial motivation schemes for the extra-time work, lack or inadequate basic infrastructure, irregular supply of medical supplies or upgrading of infrastructure. Ensuring the long term sustainability of the specialized services required that the medical education system produced well trained physicians, health officers, nurses which have been partially addressed by the project launched by AMREF.

The mitigation of sustainability risks locally required more system oriented interventions and cannot be limited to programmatic interventions only.

Gaps along the continuum of care are observed. Not all facilities had supportive environment to be fully involved and apply in the clinical specialist outreach. During the key informant interviews, service providers verbalized their feeling of self-confidence that has been boosted by both the expansion of their knowledge and competency due to the on-the-job training and application of skills into practice. In doing so, they have gained the trust of patients who appreciate the benefits coming from the clinical specialist services provided.

Those volunteers who provide the specialized services were not rewarded for their service offering. If not adequately addressed, this may result in deterioration of staff motivation,. Apart from ensuring supporting work environment, it is desired that monetary and non-monetary motivation schemes are applied to influence physician's behavior.

In order to improve quality of surgical services, the country required expansion of targeted surgical work force. Resources required to meet the training across the country, the strengthening and enhancing of health facilities with continued medical supplies and equipment would be difficult to mobilize only by international donors if public and private funding is not consolidated for resource mobilization. To ensure the long term-sustainability of the evidence based clinical specialized outreach program, approaches require that the medical education system produced well trained physicians, nurses, medical technologists as well as managers which has partially addressed by AMREF's project.

As a result of the CSOP and the weeklong campaigns conducted in the rural district hospitals by the volunteer specialists, patients' awareness about the services has raised dramatically. Hence the flow of patients to access the specialized services has increased. The project's approach proved to be effective in delivering correct information concerning when and where to go to seek the specialized services, however poor

funding, lack of transportation means and absence of educational materials may undermine the sustainability.

Key informants and health providers (general surgeons and outreach specialized surgeons) reported that after the outreach program, not all district hospitals offer quality care. Lack of medical supplies and poor infrastructure, despite the deployment of trained health providers, might discourage patients to attend the rural hospitals, and increase their mistrust to them. So, patients tend to prefer tertiary level health services. Unless the clinical service provisions are sustainably available in those hospitals, the trust gained by the patients towards the service providers in the local facilities will be eroded. Thus the public has to demand for the continued availability of services in the local hospitals through its constituencies or be able to share the cost for the services through cost sharing mechanism and social insurances. Without this mechanism the sustainability of this specialized care services will be jeopardized.

4.5.2 Conclusions

The sustainability aspect of the evaluation addressed the existence and scope of AMREF'S Sustainability strategy. Furthermore, the outlasting nature of project's effects, the project's ability to provide its services after the AECID funds are expended, and the mix and depth of cost recovery mechanisms designed by AMREF regarding the project were the focus points of this evaluation.

In this regard, the evaluation brought mixed results. The summary of indicators of such conclusion is represented in the following points.

- The project's effects were found long lasting at individual level-general surgeons, nurses, health officers-through equipping skills and knowledge that they can apply in the long run and at various situations. The important experience that can be drawn here is that the project built confidence in health professionals, its implementation was participatory, and increased community awareness and interest to use its specialized services through selecting and training volunteers of good reputation.
- On the other hand, the project shows gaps in building long term effects at the institutional level. The severe shortage of necessary medical equipment and the resurgence of back log of at referral hospitals after the phasing out of the outreach program are indicators of this gap regarding the sustainability of the projects at institutional level.

- The existence of effective cost recovery mechanisms and over all sustainability strategy at the level of AMREF are not also observed in the findings of the evaluation.

5. LESSONS LEARNED

This section of the report outlines the main lessons learned and should be taken into account for the effective design and implementation of the next phase of the project and relevant interventions. Moreover, these lessons are more of general character that could be equally applicable to the projects implemented outside of the CSOP project's host country. Building on the experiences of previous projects and/or countries will mitigate the risks of further failures or ineffectiveness.

➤ **One program vs. multiple projects:**

The evaluation confirmed the effectiveness of the packaging projects in one program (outreach service provision, on-the-job training, medical equipment supply and maintenance, awareness creation etc.) as it shows to be result based, cost effective, accountable, and replicable.

➤ **Top down approach in training and service provision:**

The findings of the evaluation clearly articulated that effectiveness of the CSOP implementation is very much dependent on the ownership and leadership of the national, regional, district and facility level. Because of the full and much involvement of district hospitals and societies (surgical societies), the implementation was much easier and quick.

➤ **Engagement of the MOH at national level prior to the implementation speeds up and makes the implementation of the CSOP easier:**

The findings of the evaluation revealed that the application of CSOP at the district hospitals level has faced problems due to inadequate constraints of resource mobilization and commitment of facility and local authorities. Thus prior engagement of all stakeholders especially at grass root level is essential to create a supportive working environment and tackle the hindrances to the implementation of the program.

➤ **Strong M&E capacity building component:**

Establishment of the strong M&E capacity within a country as well as for the project is a vital intervention for measuring the implementation status; results achieved as well as inform the future corrective measures when required. Weaknesses identified during the evaluation, such as design of the results framework, lack of thorough analysis of the follow up after training and outreach results, left the project shorthanded for effective advocacy interventions.

➤ **Method of the outreach service provision:**

The method of the outreach service provision and the on-the –job training mode applied in the project helped to address the general public who had not access to the specialized clinical service and to produce a critical mass of trained and skilled health providers in a limited period, mobilization of medical technology supporting facilities with repair and maintenance of medical equipment. However, effectiveness of this model was hampered its sustainability by lack of financial and organizational support from the local authorities. The case of AMREF’s CSOP should not be considered as a failure, rather be used to promote the given mode of outreach clinical service in similar circumstances but with pre-approved and guaranteed financial and organizational support either from national or local health authorities.

➤ **Targeting of the critical mass of health providers at local health facilities:**

The findings of the evaluation revealed that the on-the-job training and skills transfer in the CSOP will influence the need of the practice change and improvement of clinical outcomes on facility and local beneficiary levels.

➤ **Bringing of highly skilled specialist from high medical institutions in the outreach program:**

Effective deployment of the evidence based clinical specialized outreach program at facility level has been of significant importance in institutionalization of the specialist services and reducing the burden of patient backlog in the central and referral hospitals as well as reduced the cost incurred by patients, build trust of patients towards health providers at the facility where the outreach clinical service is provided.

➤ **Targeting facility managers and local health authorities prior to the outreach program:**

Will ensure local ownership and support for deployment of the new skills and practice through creating conducive working environment and sustainable service provision.

➤ **Building sustainable elements into the design:**

The project has clearly demonstrated the benefits of the sustainability elements which were considered at the project design stage. Specifically, the involvement of the MoH starting from the project designing process, the start-up workshop, continued review meetings held with stakeholders, the full engagement of societies’ (surgical, orthopedic and gynecologic/obstetric) and the creation of the sense of volunteerism is a good example. It is strongly recommended that such approach is deployed for any intervention planned by the project which will ensure, that the government being assisted by the development aid projects will have systems in place that would allow them to continue activities without external support.

6. RECOMMENDATIONS

Looking holistically at the surgical services in Ethiopia and its needs which are consistent with the mandate of the MoH, and reflecting the lessons learnt through implementation of the CSOP project, the evaluation team arrived at major recommendations that support AMREF as it embarks on its second phase of the project:

Recommendation 1

Continue support of GOE Health sector: In the health sector, AMREF is pioneer and a leading agency in the Clinical Specialized Outreach program (CSOP) in Ethiopia. This confirms its legitimacy and the capacity to continue the work in surgical services area. For the next phase of the CSOP project, AMREF needs to carefully chose the critical niche and craft its activities in a way to balance available funding with the efficiency and effectiveness of the program in mind.

Recommendation 2

Enhance advocacy: the new challenges identified, in the section below, will require promotion of greater linkage and partnership through strengthening of AMREF country office (CO) technical capacity in the health policy advice. When selecting final set of interventions for the new project phase, attention has to be paid to CO capacity. Moreover supporting research and analysis of the CSOP performance will be instrumental for an effective advocacy. ***Building on “what’s already working” will help to influence the government policy decisions.***

Recommendation 3

Enhance monitoring function: Enhance the project M&E system with the aim to integrate, synergize and link the achievements of individual outputs within and in between outcomes and for the project as a whole. End-line targets for outcomes and outputs have to be defined at the design stage as well as gender related performance indicator measurement needs to be included in the results framework.

Recommendation 4

Attention to risk identification and planning mitigation measures: Identification of potential risks and respective mitigation measures need to be defined and incorporated in the future project designs.

Recommendation 5

Capitalize on the essence of “volunteerism” for project implementation: Positive experience of the project mobilization arrangements applied using volunteerism requires further extension in the future through expanded coverage and advocacy efforts.

Recommendation 6

Gender mainstreaming in project design and implementation: consider increasing attention to gender equity/equality goals in design and implementation of project activities by (a) conducting gender-relevant research, background analysis or assessments, consultation with male and female clients as part of the design process; (b) ensure gender-equitable participation in different aspects of the project activities; (c) develop sex-disaggregated data for indicators and targets. Greater attention needs to be paid to gender issues, including gender statistics, gender specific advocacy and education.