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**INTERNATIONAL MEDICAL CORPS  
ANGOLA RELIEF & REHABILITATION  
STRUCTURAL REDEVELOPMENT OF HEALTH SERVICES IN RURAL ANGOLA  
GRANT #AOT 0003 G 00 2077**

**FINAL REPORT**

**SUBMITTED TO:  
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT  
WASHINGTON, DC**

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**I. BACKGROUND**

The International Medical Corps (IMC) emergency relief program in Angola began in August, 1990. As a result of the civil war waged between the Luanda regime, under control of the Popular Movement for the Liberation of Angola (MPLA) and the National Union for the Total Independence of Angola (UNITA), southeast Angola had been cut off from normal sources of humanitarian assistance, and IMC was the first organization in recent times to provide region-wide aid. IMC's initial program, funded by the Office of United States Foreign Disaster Assistance (OFDA), addressed the immediate need for child immunizations. Pertussis was a major cause of infant mortality, and at the time, there were no resources or adequately trained staff to address this problem. IMC began a region-wide immunization program whose goal was, first, to begin immunization coverage of the at risk child population, and second, to provide the resources and training to enable the Angolans to continue the program for themselves. In September, 1990, IMC established an operational base in Likuwa, Angola, and training began shortly thereafter. Vaccines were delivered, and by October, 1990, immunizations had begun.

In November, 1990, the deteriorating conditions of the population led IMC to expand operations. Additional funds were awarded from OFDA, and IMC began planning programs to train nutritionists, provide nutritional supplements for therapeutic feeding programs, and provide emergency supplies of antimalarial drugs, oral rehydration salts, and other essential drugs.

In December, 1990, the United Nations negotiated an agreement with the warring parties to allow humanitarian assistance to enter Angola free from interdiction by either side. Unfortunately the agreement, called the Special Relief Programme for Angola (SRPA), broke down shortly thereafter, but although as a result of the breakdown, IMC staff were restricted to their base in Likuwa, IMC managed to maintain the immunization program using the IMC Angolan trained staff. After the start of the SRPA again in April, 1991, a joint assessment was made in Moxico Province by UNICEF and IMC with the cooperation of the Angolan Ministry of Health (MOH). Although health worker activities were observed, health workers were found to operate with minimal skill levels. Drug therapy was invariably incorrect, and there was little ability to diagnose common diseases or institute proper treatment. The SRPA Emergency Coordinator reported similar conditions in Cuando Cubango Province.

By the fall of 1991, some one million people residing in Cuando Cubango and Moxico Provinces were at continuing risk of disease, and health services were either nonexistent or inadequate to meet the need. In February, 1992, IMC submitted a proposal to the United States Agency for

International Development (USAID) to assist in the development of the beginnings of a rural health infrastructure in these provinces through training of local persons in health related activities. IMC's plan was to retrain former military members of both sides of the civil conflict and to develop a locally based structure for continuation and expansion of a national rural health care program. The new project was designed to strengthen and continue IMC's Expanded Program for Immunization (EPI), already in operation supported by OFDA, and to effect the integration of the opposing factions in Angola through joint training efforts, with specific attention to trainees from the demobilizing military units. The program would provide a model for a first phase of structural redevelopment of a national rural health care system.

The proposal was accepted and grant #AOT 0003 G 00 2077 was awarded for \$1,738,155 for a period of one year from July 1, 1992, through June 30, 1993. The grant was later amended at no cost to extend the completion date from June 30, 1993, to September 30, 1993. The specific goals of the program were (1) to develop upgraded village health worker training programs in the provincial capitals of Luena and Menongue emphasizing the need for health workers to function with minimal structural support; (2) to continue the development of the EPI program in Luena and Menongue; (3) to begin development of a regionally based, locally supported health care system through the development of a cadre of health workers able to function semi-autonomously in the isolated conditions in rural Angola, and able to utilize medicines and supplies provided by UNICEF.

IMC proposed to develop these programs within the training and support guidelines of the MOH and UNICEF/World Health Organization (WHO) and to give special consideration to the vocational needs of demobilizing soldiers returning to the Luena and Menongue areas, while continuing efforts to integrate both sides of the civil conflict in joint health care training exercises. The IMC program was designed to assist in the transition from the separate systems introduced during the civil war to a unified national service following the elections scheduled for September, 1992.

## **II. PROGRAM ACTIVITIES**

### **A. Health Worker Development Program**

Working closely with the local MOH, IMC became the first organization to incorporate MPLA and UNITA health workers in the same program. Students were drawn from all of the municipalities of Moxico and Cuando Cubango Provinces, including those municipalities held by UNITA. The 16 week training program was designed to provide both classroom and practical instruction in basic concepts of disease, disease prevention, and treatment, with 12 weeks of formal in-class training and a four week practicum. Incentives for students were provided in the form of a monthly ration of beans and rice, and students were required to sign a contract with IMC requiring their total participation in the training program.

Upon recruitment, students were given an entrance exam which consisted of quantifying the personal background of each student, assessing each student's math and reading skills, and eliciting students' response to an essay question on each individual's approach to improving health care in his/her local community. After graduating the first class of health workers, IMC planned to assign graduates to work as classroom instructors in the subsequent training classes in order to afford the IMC staff the opportunity to assess the skills and interest of the graduates for participation in a Training of Trainers course.

Highlights of the in-class training included a visit to the local hospital; an educational tour of the city water supply, market, and health post in conjunction with instruction on hygiene and environmental sanitation; and an introduction to the Angolan health care system, which stressed the health worker's role within the system. The curriculum also provided participation projects such as the health workers' construction of a sanitation pit for the maternal/infant clinic utilizing information obtained from the environmental health component of the training program. Only local resources were to be used in the construction of the pit, and the knowledge gained from the exercise was to be shared by the students with clinic employees for basic environmental sanitation and the proper use of the sanitation pit. At the conclusion of the in-class training, students were subject to a final examination covering the theoretical portion of the instruction, and were then assigned to local health posts throughout the provinces to prepare for the practical aspect of the training program.

The training program began in Luena with 24 students in the first class and 25 in the second. Of the 49 students, 34 were politically affiliated with the MPLA and 10 with UNITA. In Menongue, 26 students completed the first course, and 20 students were chosen for the second; 39 affiliated with MPLA and seven with UNITA.

In Luena, students were assigned to health posts in the Luena area for the practical component of the training. The goals of the practical portion were to provide hands-on experience in patient consultation, disease diagnosis, treatment, record keeping, health education, and community development. Students were required to demonstrate the ability to maintain accurate records of all patients, including signs and symptoms, diagnosis and treatment, and drug dosage. Students also conducted pre-natal consultations and referred high risk pregnancies to the appropriate health care centers and performed growth monitoring of children, vaccination referrals, and home visits. Throughout the practical portion, IMC expatriate staff monitored students' progress, and after graduation, the newly trained health workers continued their work at the community health posts. IMC trainers continued to provide support and assistance for the health workers and to monitor health care activities.

The selection process for the third training class had just commenced when the civil war broke out again as a result of the outcome of the elections, forcing IMC expatriate staff to temporarily evacuate the area. However, despite the absence of expatriate staff, the IMC-trained health workers continued primary health care operations. Latrines were constructed and/or rehabilitated, and vegetable gardens were planted at clinic sites where practical. Patient diagnoses were made, and when necessary, referrals were made to local hospitals. Growth monitoring activities and

traditional health care measures were undertaken. To encourage preventative health care, the health workers conducted community forums on topics such as breast feeding, water and sanitation, and basic community health standards.

In Menongue, the first class of students completed the academic portion of the training and was assigned to work in surrounding communities, but the second training class was forced to suspend activities after the first two weeks as a result of the post-election conflict. Topics covered to that point included community health and health indicators, sanitation and disease prevention, traditional medicine, and commonly encountered illnesses. Although IMC expatriate staff were forced to evacuate, the first class of graduates continued a variety of primary health activities to provide a basic level of health care. Diagnoses were made, and when necessary, referrals were made to local hospitals. The IMC-trained personnel also held community forums to encourage preventative health measures.

## **B. Expanded Program for Immunization (EPI)**

In response to the collapse of Angola's health care system created by the long standing civil war, IMC first intervened in the critical health emergency with an immunization program in UNITA controlled areas of Cuando Cubango Province. From October, 1990, through March, 1992, IMC trained personnel administered over 149,219 immunizations to 51,295 children and women. In early 1992, the immunization program was extended to the provincial capitals of Luena and Menongue. The training of vaccinators began, and in an effort to encourage Angolans to put their hatred aside and begin to work together to create a lasting peace, IMC allowed no distinction according to political affiliation to be made among students. The first class of 19 trainees included students from both sides of the conflict, and by the end of the two month training, they were working together side by side. An extensive immunization campaign was begun immediately upon completion of training, with 10,689 women and children receiving 26,788 immunizations in the period from April 1, 1992 through June 30, 1992. In Menongue, the first class of 17 vaccinators graduated in June, 1992.

Training of EPI personnel has been a major focus of IMC's activities in Angola since the start of operations. Based on UNICEF/WHO guidelines, the curriculum centers on cold chain and vaccine storage procedures, immunization protocol, safe disposal of used vaccination materials, record keeping, and needs assessment. Training consists of four weeks of in-class instruction and six weeks of actual vaccination administration, supervised by IMC expatriate staff.

The second round of the vaccinator training program began with the awarding of this USAID grant #2077. In Luena, the second class began on July 13, 1992, with 25 students; 15 MPLA affiliated and 10 UNITA affiliated. Students from the previous course participated as instructors and aids in the training. Upon graduation, the students were split into two teams and sent to different parts of the city for the vaccination campaign. Each team spent the morning vaccinating and dedicated the afternoon to announcing the next day's campaign in the next location. In the

period from July, 1992, through September, 1992, 19,569 vaccinations were administered to 6,395 women and children. The first EPI Trainer course was completed, and the selection process for the next vaccinator training class had begun when the program was disrupted by the political situation. In Menongue, the second EPI class began on August 10, 1992, with 19 students. The training lasted for approximately three weeks at which point preparations for the elections interrupted the program. Graduates from the first EPI class participated in a measles epidemic vaccination campaign in early September while students from the second class participated as observers. The class resumed on October 12, 1992, and continued for three weeks during which time a wide range of topics was covered, including EPI diseases, basic immunological concepts, and goals of EPI in Angola. The course was suspended again on November 2, when IMC expatriate staff was evacuated as a result of the post-election conflict.

In cooperation with the MOH, IMC staged an extensive vaccination campaign in Menongue on October 19, 1992, utilizing the skills of the IMC trained vaccinators who had graduated from the first EPI class. More than 5,600 women and children were vaccinated during the 10 day campaign that covered eight districts in southwest Menongue. Approximately 4,800 of those vaccinated were under six years of age. At the time of evacuation, the Menongue warehouse was left open in order for the Ministry of Health to have access to vaccines during the temporary absence of IMC expatriate staff. At that time, there was a supply of vaccines sufficient to vaccinate approximately 60-80 people per day at one fixed point for a period of approximately 60 days.

In Luena, IMC trained vaccinators continued EPI activities until the evacuation of the expatriate staff. A total of 644 women and children were vaccinated in October, 1992, at one fixed point. At the time of evacuation, IMC secured the remaining vaccines on site, and EPI activities did not take place in November, 1992. Vaccinating recommenced on December 22, 1992, after IMC reestablished contact with MOH counterparts in Luena. In the last week of December, approximately 250 women and children were vaccinated at one fixed point.

### **III. POST-EVACUATION ACTIVITIES**

Following the national elections of September 29-30, 1992, the security situation in Angola deteriorated to the point where IMC programs were seriously affected. All expatriate staff was evacuated to Windhoek, Namibia, by November 4, 1992. IMC projects in Angola continued to function at the highest level possible without an expatriate presence on site. The evacuation of staff to Windhoek provided a unique opportunity for the IMC medical staff to meet as a group for the exchange of ideas and experience and to share information and discuss technical issues, program matters, and elements of importance at the project sites. One of the significant achievements of these meetings was the establishment of a standardized primary health care curriculum.

Expatriate staff also provided guidance and technical assistance to the IMC trained local staff in Luena and Menongue by radio from the IMC base of operations in Windhoek. From November 2, 1992, until early January, 1993, IMC expatriate staff in Windhoek maintained daily radio contact with the IMC trained staff in Luena. IMC trained vaccinators and health workers posed questions and sought counsel on technical issues and referrals as EPI and community health worker activities continued.

In mid-December, 1992, IMC expatriate staff instructed the Angolan site manager in Luena to distribute all primary health care materials to local Ministry of Health personnel to complete the rehabilitation of 15 health posts in and around Luena. Coordinated by promoters from the Provincial Director of Health and the local IMC on-site counterpart, with assistance via radio from IMC expatriate staff in Windhoek, picks and shovels were dispensed to health workers to carry out sanitation and vegetable gardening activities at the health posts. The site manager was also instructed to facilitate access to the vaccination supplies for the Director of Public Health in Luena to enable him to do an inventory of vaccines and materials. Ultimately the responsibility for all vaccines in Luena was transferred to the Ministry of Health.

IMC continued radio contact with Luena to provide technical guidance and advice on immunization and primary health care activities and to receive data on activities carried out, including immunization from one fixed point and support to the health posts. On January 6, 1993, the local IMC Luena site manager reported that vaccination was continuing normally. On January 11, 1993, radio contact was lost with Luena.

IMC maintained radio contact sporadically with the local IMC site manager in Menongue from November 2, 1992, until early December, 1992. During that time, the site manager reported that all freezers and refrigerators were working normally, and that the vaccination program was continuing on a daily basis. IMC expatriate staff in Windhoek established an emergency plan to vaccinate 35,000 women and children against measles, polio, DPT, BCG, tetanus toxoid, and yellow fever during the period from January to March, 1993. This plan was in place when radio contact was lost with Menongue.

The first visit after evacuation by any international to Luena was carried out by a United Nations Development Program (UNDP) official on January 26, 1993. The IMC Project Director had been scheduled to accompany that flight, but was advised against it by United Nations personnel on the day of the flight. The clearly marked UN aircraft was fired at while making its descent, and an attempt was made to rush the plane when it departed Luena less than an hour later.

IMC expatriate staff revisited Luena on March 1, 1993. The mission was able to spend time on the ground in Luena, do an initial inventory of IMC property and equipment, and recover certain vital items. All equipment had been secured under lock and key at the IMC compound and was still guarded by the site manager and other local staff members who continued to reside there with their families. The EPI equipment was found to be secure and had not been disturbed. One of the two refrigerators was functional and contained vaccines for polio, DPT, tetanus, and

measles. The other refrigerator was not operating due to a lack of kerosene.

After the evacuation of IMC expatriate staff and subsequent loss of radio contact, provincial Ministry of Health vaccination teams, trained by IMC, had continued to carry out immunization activities among the estimated 70,000 displaced persons living in Luena. IMC trained teams reportedly vaccinated building by building using vaccines stored at the IMC compound and needles and syringes supplied by the Angolan Red Cross.

Although the possibility existed that the cold chain had been compromised, the Ministry's attempt to continue vaccination activities and the IMC local staff's diligence in running the refrigerator and protecting materials--when the sale of vaccines and medical supplies had become a lucrative business in Luena--constitute gratifying justification for IMC's training activities in the province over the previous year. The relative productivity of the project in the absence of on-site expatriate staff, and in the face of very difficult circumstances, demonstrates the high degree of self-sustainability incorporated into the project design.

During the IMC assessment mission, repeated efforts were made to travel to Menongue by means of UN aircraft. Security clearance was never issued however, primarily because the town was reportedly under siege.

As a result of the IMC assessment mission, the IMC trained Ministry of Health vaccinators were contacted and project operations were examined. IMC reviewed resupply requests with the local Ministry of Health and followed up in Luanda with UNICEF and national EPI authorities. Subsequent to an inventory of the IMC supplies, disposable supplies were distributed to the local IMC health workers to support EPI and primary health care activities. EPI statistics and patient records from the local health posts were reviewed and evaluated. Improvements were recommended based on the limited resources available. IMC also met with UN authorities and local church and nongovernmental organization representatives to coordinate health activities in Luena.

#### **IV. ADMINISTRATION**

The Structural Redevelopment of Health Services in Rural Angola Project maintained an expatriate staff of 12 in country: one site manager per site, one primary health care supervisor per site, two primary health care trainers per site, and two EPI trainers per site. Additionally, four staff members based at the IMC base of operations in Windhoek, Namibia carried out the administrative and logistical responsibilities for the project. Approximately, 60 days after evacuation, seven expatriate staff members were sent home on condition that they would remain on call in the event of a rapid redeployment into Angola should conditions permit.

The cold chain equipment in Luena was in good working order at the time of evacuation. Fuel to run the refrigerators was sufficient to last until the end of January, 1993, and the supply of vaccines was sufficient to vaccinate approximately 100 persons per day at one fixed point for a period of approximately three months. Salter scales, used for weighing infants, had been distributed to health posts, along with growth monitor charts, and the local IMC trained health staff had just begun putting them to use when the evacuation took place. Drug kits had been distributed to 17 clinics in and around Luena where the IMC trained community health workers had been stationed. In Menongue, drug supplies were exhausted at the time of evacuation.

## **V. ENDNOTE**

Due to the resumption of armed hostilities in Angola, USAID suspended certain grant activities on December 1, 1992. In March, 1993, USAID asked grantees of USAID funds to submit proposals to complete activities which could still be performed and which were originally envisioned under the grants . Since one of the key elements in the IMC Structural Redevelopment Project was the development of a rural health infrastructure, IMC, prior to evacuation, had already begun to lay the groundwork for an assessment of the national health care system. Based on IMC's experiences in Luena and Menongue, IMC was well situated to study administrative and structural issues facing the MOH and to make recommendations as to methods to improve the efficiency of national health programs. IMC developed a plan to complete grant activities by carrying out an evaluation of the health systems within the MOH and providing support and training for national and provincial EPI administrators. A proposal, pipeline analysis, and budget were submitted on March 11, 1993, and the grant remained alive through September, 1993. However, USAID decided that reprogramming of funds would not be feasible since the civil crisis prevented the continuance of development activities.