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**HEALTH ASSISTANCE TO WAR AFFECTED  
POPULATION IN KASAI ORIENTAL, EASTERN  
DEMOCRATIC REPUBLIC OF CONGO**

**FINAL REPORT  
SUBMITTED TO OFDA**

**MARCH 2002**

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### ANNEXES

#### ANNEX I: BREAKDOWN OF EXPENDITURE

## I. EXECUTIVE SUMMARY

### Final Program Report

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Program Title:	Health assistance to war affected population in Kasai Oriental
Country:	Eastern Democratic Republic of Congo (EDRC)
Disaster/Hazard:	War affected populations in Maniema
Period covered by Report:	November – December 2001

### SUMMARY OF ACTIVITIES UNDERTAKEN AND PROGRESS MADE IN REPORTING PERIOD

Merlin's operation to support the health structure in Kasai Oriental, Eastern Democratic Republic of Congo began in April 2001. Merlin has had a relatively long-term presence in the Great Lakes region and has previously responded to the grave humanitarian catastrophe caused by continual conflict in Democratic Republic of the Congo (DRC)/Rwanda. OFDA and other international donors have funded Merlin's previous responses in 1997 and 1998 within the Great Lakes. These projects have assisted refugees and displaced people on both sides of the Rwanda/DRC border.

Since April 2001, Merlin has been working with the local health staff in two health zones of Kasai Oriental, namely Lodja North and Lodja South to reinforce local capacity and ensure the provision of basic health care for the most vulnerable. Merlin currently supports a network of:

- 12 out of 32 health centers and the district hospital in Lodja North health zone,
- 8 out of 35 health centers in Lodja South health zone.

The persistent health needs, restrained presence of other international NGOs in Kasai Oriental, and the request from local health authorities for assistance from Merlin prompted this OFDA-funded emergency operation.

The ongoing project aims to continue reinforcement of basic health care provision to vulnerable populations in Kasai Oriental. The need to expand the range and quality of essential health care services provided to the population was recognized by Merlin and was used to formulate the objectives set for the 8-month program period. The overall strategy for this support involves capacity building of the Bureau Central de la Zone de Sante (BCZS) with limited but essential hands-on technical and supervisory duties by Merlin staff. This is considered essential to bolster self-reliance in the health care system in Kasai Oriental.

Before OFDA funding approval for this project was completed, Merlin's EDRC Field Team, the Regional Program Team, and the Operations Desk at Headquarters discussed with the OFDA-EDRC representative/OFDA-Washington Team about the content, the budget, the objectives, and

the activities proposed in the submitted proposal. During these discussions, streamlining of program strategies and budgetary changes were undertaken.

This report covers main program events and achievements throughout the project period between April and December 2001. Critical monthly program activities, which include procurement and distribution of essential medicines to supported facilities, collection/analysis of health data, logistical support to BCZS, supervision, training, and technical meetings have all been established and are ongoing.

There were a number of difficulties in the procurement of vehicles and motorcycles that delayed the initial assessment process. The pre-occupation of the local health staff with the national immunization days (Journées Nationales de Vaccinations- JNVs) for Poliomyelitis in June, July and August 2001, as well as a number of logistical/procurement constraints, dictated some dateline changes made to the original program plan. This has affected the degree to which some targets have been achieved, namely routine immunization support. The proposed malaria study has been adjourned, following discussions with the Roll-Back Malaria/ World Health Organization (WHO).

Difficulties were initially experienced in finding competent contractors for the rehabilitation work. This necessitated increased direct supervision from Merlin staff. Merlin has chosen to involve the community in rehabilitation activities. Some communities have been well organized and have provided their contributions in a timely manner. These contributions include the fabrication of adobe brick, as well as the provision of all necessary wood, water, sand, and clay. Other communities have required repeated visits and supervision to ensure completion of their contribution. Additionally, the transportation of supplies has been very challenging due to the poor condition of the roads used to access many health centers. This has caused delays to the initiation of the rehabilitation work and a no-cost extension until the 15<sup>th</sup> December 2001 was granted by OFDA to complete this work.

Representative program indicators, measured during the ten months of the program, are outlined below. They are elaborated in more detail further in this report. Merlin aims to gather and share information collected about the health system, namely, disease control efforts, the beneficiary population, and strategies which have worked and are appropriate to the situation in Kasai and EDRC at large. A community health survey was carried out in Lodja town and Efunda village in May and August respectively. This information has been shared with the BCZS and Medecin Inspecteur Provincial (MIP) in Kasai as well as with Catholic Relief Services (CRS), which is also working in Kasai Oriental.

#### **INDICATORS MEASURED DURING THE OPERATION**

**OBJECTIVE # 1:** To improve the provision of basic healthcare to vulnerable communities of Lodja North and South health zones of Kasai Oriental

##### **1. *Number of target facilities re-established***

**Lodja North** - Currently all 12 health centers targeted for assistance by Merlin in this project period are receiving support. There are another 20 health centers in this health zone that are not assisted by Merlin. Support to the district hospital in Lodja has also commenced.

**Lodja South** – All 8 health centers in Lodja South targeted for assistance are receiving support at this time. One of these centers is supported as a referral center. Merlin does not support the remaining 27 health centers in the zone.

**2. Number and Percentage of the target population using the supported health facilities**

In Lodja North health zone, Merlin supports 38% of facilities, covering more than 53% of the population. Utilization rates, prior to Merlin's assistance, averaged 29 consultations per month. This number has since increased: averaging 250 consultations per month in the first three months, it had increased to 434 consultations per month by October. There was a decline in overall attendance in December when it was 340. Reports from some health centers indicate that people are arriving from outside of health center catchment areas because medications are considered affordable. The average consultation rate for new cases in the twelve Merlin-supported health centers increased from an average of 0.04 consultations/person/year to 0.36 consultations/person/year in the first reporting period. This upward trend continued in the second three months with an average of 0.49 consultations/person/year, whilst the average in the months of November and December was 0.51 consultations/person/year. These rates are calculated using the populations of each aire sanitaire for Merlin-supported facilities<sup>1</sup>. These consultation rates may be somewhat elevated due to the fact that a number of patients (an average of 30% of the total new cases) treated at the health centers come from outside the aire sanitaire and also because census figures used are outdated. If you take into consideration both of these variables, the average consultation rate for November and December in Lodja North drops to 0.33 consultations/person/year for this reporting period<sup>2</sup>. For calculations based upon the entire population of Lodja North, rather than just the population of the supported health centers, the utilization rate is 0.27 consultations/person/year<sup>3</sup>. This indicates that there is significant work yet to be done to improve overall utilization rates.

Utilization of the outpatient clinic of Lodja hospital has risen even more significantly, from an average of 124 patients per month, prior to Merlin's assistance, to a peak of 2113 outpatient consultations in November, dropping to 1525 in December. Similarly, in-patient services have increased from less than 20 inpatients a month, prior to Merlin's assistance, to 164 inpatients in December.

In Lodja South health zone, Merlin supports 23% of health facilities, covering 30% of the population. Utilization rates at the eight Merlin-supported health centers increased from an average of 48 consultations per month to 330/month in the first reporting period to 429/month in the second reporting period. In November the average consultation rate was 423 while in December it dropped to 259. The average consultation rate for new cases in the eight Merlin-supported health centers has increased from an average of 0.1 consultations/person/year to 0.7 consultations/person/year in the first reporting period. In the second reporting period there was an average of 0.75 consultations/person/year, while the average of this final reporting period is 0.72 consultations/person/year<sup>4</sup>. Taking into consideration patients that come only from within the

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1 Based on 1988 census.

2 Based on 2001 JNV population figures and calculating rates using only new cases from within the aire sanitaire (67%).

3 Calculated using population for Lodja North of 208,514 as per 1988 census.

4 Using populations figures for the 8 aires sanitaires using the 1988 census figures.

aire sanitaire and using updated population figures this drops to 0.38<sup>5</sup>. The utilization rate drops to 0.22/consultations/person/year<sup>6</sup> if calculated using the entire population of Lodja South rather than just the population of supported aire sanitaires.

### ***3. Number of target health facilities implementing cost-sharing system***

All health facilities in Lodja North and Lodja South have implemented a cost-sharing system. Consultation fees were set in conjunction with the BCZS and health center staff from each health zone.

### ***4. Percentage of cost price paid by patients for medicines***

The prices of medication have been kept to a minimum due to the fact that a baseline community assessment<sup>7</sup>, which was conducted at the start of the project period, revealed that the high cost of health care was a major obstacle to accessing health care. In November 2001, an increase (an average of 30%) in prices was instituted in an attempt to provide some additional incentive for health care staff. The price of medication paid by the patient is an average of 25-30% of the cost price (excluding transportation). Since the initiation of Merlin support, high attendance rates and exit surveys as well as general conversations with the public indicated that prices were affordable. Since the price increase, there have been complaints from the population served by a few health centers, but the majority say prices remain affordable. However, given the decreased attendance at health centers in December, utilization rates will be carefully monitored to see the impact the price increase has on the population. Currently nurses working at the health centers make between \$5.00- \$17.00/month, depending on utilization rates, numbers of staff at clinic etc.

### ***5. Volume of cost recovered from cost sharing program***

The monthly income of the health centers varies depending on attendance levels. From the income generated at the health center level, 60% goes to the health center staff as incentives, 20% is kept for minor rehabilitation or repairs, 15% is given to the BCZS and 5% kept for functioning costs. Increased attendance levels indicate that the prices are affordable for the general population. The average total monthly income of the health centers has increased to \$83 per health center from \$55 in the previous reporting period with the incentive for the charge nurses averaging \$11.00 per month as compared to \$9.00/month in the last reporting period. This is as compared to an average of \$1.00-\$2.00/month prior to Merlin assistance.

The hospital income has increased from \$200/month prior to Merlin assistance to \$800 in June, to \$1128 in October, to an average of \$1163 in this reporting period. The incentive received by the hospital nurses has remained at \$12/month this reporting period, as compared to \$3.00/month prior to Merlin assistance.

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5 Based on 2001 JNV population figures for aire sanitaires and 57% of new consultations, which came from within the aire sanitaires in November.

6 Using total population of Lodja South of 150,319 as per 1988 census

7 Merlin Community-based Health Survey, Lodja North Health Zone, May, August, 2001

**6. Number and Percentage of health workers using standardized diagnostic and treatment protocols**

All supported facilities in Lodja North and South have access to standardized protocols. Compliance with protocols by consulting nurses has improved in general during this reporting period due to regular supervision. 80% of the health centers follow the rationale prescription guidelines most of the time whilst the remaining 20% of health centers follow the guidelines on a less consistent basis. In those cases where the consulting nurses have continued to fail to comply with rational prescription practices, the BCZS is taking steps to find replacements for them. In the case of a non-compliant consulting nurse at the hospital, after prescribing, he was required to send all consultation forms to the doctor for review. Corrections and guidance were given when required and this has gone a long way to resolve the problem.

**7. Morbidity rate within target population <sup>8 9</sup>, particularly under-fives <sup>10</sup>**

In Lodja North and South, the five most common causes of under-five morbidity using data for November and December 2001 are:

	<b>Proportion of new U5 cases</b>	<b>Incidence in U5</b>
<b>Malaria</b>	33%	<b>8976/100,000</b>
<b>ARI</b>	16%	<b>4626/100,000</b>
<b>Helminthiasis</b>	27%	<b>7713/100,000</b>
<b>Diarrhea</b>	11%	<b>3042/100,000</b>
<b>Anemia</b>	9%	<b>2559/100,000</b>

Malaria, helminthiasis and sexually transmitted diseases were the most common causes of morbidity in the population over 5 years of age.

**8. Mortality rate within health centers**

**Crude Mortality rate = 0.082/10,000/day<sup>11</sup>**

**Under Five Mortality Rate = 0.32/10,000/day<sup>12</sup>**

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8 Total Population of aire sanitaires for 20 supported clinics is 156,302. Total population for Lodja North health zone is 208,514 and in the 12 supported health centres is 110,605. For Lodja South, total population is 150,319, and for 8 supported health centres is 45,697.

9 The census data used here predates the conflicts

10 Under-5 population for clinics 31,260

11 Based on population of 156,302 served by 20 health centres

12 Based on under 5 population of 31,260

**Major causes of mortality amongst under-5s are:**

Malaria	22% of total U5 deaths at all facilities
Anemia	16% of total U5 deaths at all facilities
ARI	25% of total U5 deaths at all facilities
Malnutrition	12% of total U5 deaths at all facilities
Diarrhea	9% of total U5 deaths at all facilities

**9. Number of Under-5s using the pre-school clinics**

As of September, all health centers had initiated under-5 clinics, although in December some clinics failed to conduct these weekly. Due to the fact that pre-school clinics were not conducted for several years, the knowledge concerning the benefits of this activity are minimal, and uptake of services offered has been slow. Additional community education is necessary in order to improve attendance rates. Health Committee (Comite de Sante - COSA) members have been encouraged to assist in notifying and motivating communities to utilize these services. In a number of health centers, the staff have conducted village-based pre-school clinics in addition to facility-based clinics. This has increased the number of children reached. An average of 2025 *new cases* per month have been seen in this reporting period as compared with an average of 2282 new cases per month in the last reporting period. Looking at *total number of cases*, including new and return cases, the average per month has increased from 3428 per month in the last reporting period to 4866 per month in this reporting period. Attendance patterns were similar to that of general consultation in that they declined in December.

**10. Number and percentage of children immunized through routine EPI services**

In Lodja North and South health zones, routine Expanded Program of Immunization (EPI) service has been available only in urban areas and this has been sporadic. Two 6-day workshops were held by Merlin in late November and early December with a total of 50 participants from 40 health centers. BCZS staff and Merlin supervisors also attended. The MIP organized training for the Medecin Chef de Zone (MCZ) and personnel from the Programme enlarge de vaccination (PEV) in late December. Due to these training activities, as well as the holiday period, vaccination activities were undertaken in only a few health centers in December. In Lodja North and South, coverage from January to December 2001 is outlined in Tables 1 and 2 below:

*Table 1: Lodja North*

Antigen	Target Population <sup>13</sup>	Target Population Vaccinated <sup>14</sup>	Coverage (%)	Target Coverage
B.C.G	9258	2121	23%	30%
Polio 3	9258	696	7.5%	20%
DTP3	9258	465	5%	20%
Measles	9258	3335	36%	20%
Tetanus Toxoid	9258	787	8.5%	20%

<sup>13</sup> Target population for Lodja North and South includes of 0-59 months and pregnant women

<sup>14</sup> Target population vaccinated included 0-11 months and pregnant women

**Table 2: Lodja South**

Antigen	Target Population	Target Population Vaccinated	Coverage (%)	Target Coverage
B.C.G	6966	440	6.3%	30%
Polio 3	6966	65	1%	20%
DTP3	6966	60	0.8%	20%
Measles	6966	1963	28.1%	20%
Tetanus Toxoid	6966	144	2%	20%

**11. Number and percentage of women in target population using antenatal services<sup>15</sup>**

**Lodja North**

The number of women using antenatal services at each health center in this reporting period averaged 36 per month as compared to 35 per month in the last reporting period. This accounts for 29% of expected antenatal visits, as compared with 28% in the previous reporting period. At Lodja hospital the number of antenatal consultations has remained around 100 per month.

**Lodja South**

During this reporting period, the number of women using antenatal services at each health center averaged as 27 per month compared to 42 per month in the last reporting period. This accounts for 46% of expected antenatal visits, as compared with 73% in the previous reporting period.

**12. Number of deliveries attended by trained midwifery personnel**

**Lodja North**

In this reporting period, 228 deliveries were conducted in the health centers accounting for an average of 30% of expected deliveries in Lodja North. This has increased from 24% in the last reporting period. Rehabilitation of the maternity ward in the hospital was completed in December. Deliveries at the hospital increased to 49 in December as compared to 39 in October.

**Lodja South**

In this reporting period, 108 deliveries were conducted at the health centers in Lodja South, accounting for 47% of expected deliveries as compared with 42% in the last reporting period.

**13. Number and percentage of health center staff trained during the project period**

In November and December, two 6-day EPI workshops were held for charge nurses at all Merlin-supported centers as well as Merlin and BCZS supervisors. Nurses from another 20 health centers in Lodja North and South who will be initiating immunization activities were also included. A total of 50 participants were trained.

<sup>15</sup> Using data collected from the 20 supported health centers for the months of August – October 2001.

**14. Number and percentage of blood transfusions screened for HIV, hepatitis and syphilis**

The baseline rate of 80% blood transfusion tested for HIV has increased to 85%. A blood transfusion protocol has been written and given to the two facilities that administer transfusions. A reporting format has been introduced to help ensure that all transfusions are tested. There have been delays in the arrival of hepatitis kits and a refrigerator, which will be used in the hospital to store test kits. Laboratory staff report that VDRL testing prior to the administration of transfusions has been difficult to perform because transfusions are always ordered in urgent circumstances. Merlin has discussed the possibility of having a small store of pre-tested blood readily available with the medical director of the hospital. The refrigerator has recently been delivered to the hospital, but the hospital administration is still working out logistics for kerosene supply and it has not yet been lit.

**15. Definitive malaria entomology, epidemiology and therapeutic efficacy available**

Following discussions with the Roll Back Malaria Co-ordinator, the planned drug efficacy study was cancelled because similar studies had been conducted in relatively close geographical proximity.

**16. Activity index in each health zone during the project period**

**Lodja North and South health zones**

- Monthly meetings are held between the District Health Management Team and the Merlin team in Lodja North and Lodja South.
- Supervisory visits are ongoing: the BCZS nurse supervisors are responsible for visiting each health center monthly; the administrator visits on a bi-monthly basis; and the Medecin Chef de Zone de Sante (MCZS) on a quarterly basis. 90% of these visits have been completed. Merlin staff have also supervised each health center on a bi-weekly basis.

**17. Number of health facilities where water and sanitation rehabilitation is complete**

- Safe drinking water catchment systems have been purchased and installed for all 20 supported health centers and the Lodja maternity hospital. For the health centers, this system includes a water storage capacity of 500 liters. For the Lodja maternity hospital, the system includes a water storage capacity of 1,200 liters.
- A sanitary water evacuation system has been installed in the Lodja maternity hospital delivery room.

## **II. PROGRAM OVERVIEW**

### **A. GOALS AND OBJECTIVES**

#### **OVERALL PROJECT GOAL:**

To improve the health status of the population of Lodja North and Lodja South health zones by ensuring the provision of accessible and effective basic health care

#### **OBJECTIVE # 1:**

To improve the provision of basic health care to vulnerable communities in Lodja North & South health zones of Kasai Oriental

#### **Illustrative Activities:**

- To support basic health care delivery at 20 health facilities in Lodja North & South health zones through regular provision of affordable essential medicines and renewable medical supplies.
- To support the provision of secondary level care (general and obstetric) at 3 - 4 referral health centers in Lodja North & South and Lodja General Reference Hospital (obstetric care) through the provision of basic equipment and staff training.
- To promote quality care in each of the supported health facilities through clinical training, effective diagnosis and treatment of prevalent diseases like malaria, diarrhoea and acute respiratory infections.
- To intensify maternal and child health services in Lodja North & South through the introduction of safe motherhood initiatives and effective growth monitoring for children in the under-5 age group.
- To re-establish routine immunization services through the provision of cold chain equipment, disposable needles and syringes and regular distribution of vaccines to supported facilities.
- To ensure safe blood transfusions at Lodja GRH and 3 - 4 referral health facilities through the provision of equipment and test kits.
- To investigate the potential for cost sharing within supported health facilities and if deemed appropriate, to introduce a system, which ensures those identified as vulnerable receive free medical services.
- To support disease surveillance and data management systems through critical review, training of health staff and epidemiological assessment of recent disease outbreaks to maintain an emergency response for epidemic outbreaks in all supported facilities.
- To actively encourage community participation and awareness of disease control and maternal/child health in the supported health zones through appropriate training of identified health providers.

- To improve the district health management capacity through training, technical support and supervision of peripheral health facilities in Lodja North & South health zones.
- To perform minor rehabilitation of water and sanitation facilities at all supported health centers.

## **B. PROFILE OF TARGETED POPULATIONS AND NEEDS IDENTIFIED**

Since October 1996, the Democratic Republic of Congo (DRC) has experienced two conflicts. The second of these conflicts, which began in August 1998, remains protracted, with rebels fighting to oust President Laurent Kabila. President Kabila had emerged as the country's leader after the overthrow of President Mobutu in May 1997. The present conflict not only threatens to engulf the whole of the DRC but also impacts directly on other countries throughout the Great Lakes Region.

Conflict in the eastern part of DRC has been concentrated consistently around the larger towns within the two Kivu and Maniema provinces, in particular Uvira, Bukavu, Goma, Kisangani, Kindu, Punia, Kampene, and Kalima. The populations in these areas of eastern DRC (eDRC) have been the most affected by both of these wars. In March 2001, President Laurent Kabila was killed and his son, Joseph Kabila, took over as President. Although the peace negotiations are being encouraged and so too the deployment of UN peacekeepers, there is still considerable insecurity being caused by the Mai Mai insurgents and Interahamwe militias who are continuing to move through areas and attack populations.

Kasai Oriental is a large province but due to the on-going instability in the Democratic Republic of Congo, the province is 'de facto' divided into two. The northern and eastern parts of Kasai Oriental are under the control of the Rassemblement Congolais pour la Democratie (RCD) Rwanda-backed rebels, while the southern and south-western parts are under the control of the DRC government. Currently, no direct political, communicational, commercial or road links exist between the northern rebel-held part of Kasai Oriental and the southern government-controlled area. The major towns in the rebel-held areas are Lodja, Tshofa, Lubao, Lusambo, Lomela and Katakokombe.

Kasai Region is mineral-rich (diamonds and gold), mining is intense and is a magnet for all warring parties. The rebels have sought control of this rich mining area but have met with frequent and heavy resistance from government troops.

Throughout the project period, Lodja has remained relatively stable. The Lusaka peace accord has meant that both the government and the RCD troops have withdrawn from the front lines and ceased fighting. Kasai region has also escaped problems with the Mai Mai and the Interahamwe.

Kasai Province has however been adversely affected by the protracted conflict in Eastern DRC. This can be seen in the destruction of residences, of businesses and of the health and social welfare infrastructure. There has also been significant population displacement. The returned population now has very poor access to extremely limited services. In the absence of any external support, the health needs of this war-affected population have not been met.

Prior to the commencement of the Merlin program, health structures were barely functioning. The only drugs available were being sold at the commercial rate and consultation fees were charged as

additional costs. Expensive treatment has resulted in poor utilization of services by the majority of the population, as many people were unable to afford the high cost of drugs. Many of the health centers have inadequate numbers of staff and the level of training is low and outdated.

The most common causes of morbidity and mortality in Kasai remain preventable diseases such as malaria, anemia, acute respiratory infections, worm infestations and diarrhea. The need to ameliorate the effects of these diseases requires external input into the health system as there is very limited local capacity to undertake control measures against these diseases. In addition, irregular immunization of children and pregnant women against preventable diseases, low prenatal consultation rates, and limited resources at the two BCZS of Lodja North and Lodja South in Kasai Oriental require urgent attention.

Local capacity and resources required to meet the increased health care needs remained virtually non-existent in Kasai. There has been little government support to the health sector in this region. Even before the two conflicts occurred, there existed poor physical and financial access to health care, irregular supply of essential drugs, sub-standard medical practices, inadequately trained and supervised health staff, and a poor health information system precluding adequate and immediate response to life-threatening disease outbreaks. This situation has deteriorated because of the unending conflict in EDRC.

Without considerable external assistance, the marginally surviving health structure in Kasai will probably continue to deteriorate further, hence the existing humanitarian emergency. Merlin deemed it necessary to re-establish, improve, and maintain access to appropriate, acceptable, and affordable basic health care for commonly prevalent and other locally endemic diseases in these two health zones in Kasai, which explains the current health support program.

### **C. GEOGRAPHICAL LOCATIONS OF MAJOR PROGRAM ACTIVITIES**

**Date:** October 2001  
**Country:** Eastern Democratic Republic of Congo  
**Total Target Population:** 358,833

<b>Admin 1</b>	<b>Admin 2</b>	<b>Place</b>	<b>Lat/Long</b>	<b>Sector/ Activity</b>	<b>Start</b>	<b>End</b>	<b>Target Pop<sup>16</sup></b>
Lodja Town	Goma	Lodja North	3° 25'S 23° 25'E	Health	01-04-00	15-12-01	208,514
Lodja Town	Goma	Lodja South	3° 32'S 25° 25'E	Health	01-04-00	15-12-01	150,319

The project directly assists the catchment populations of Merlin-supported health facilities in Lodja North & South health zones. The most accurate population data available at the start of project period was from the 1988 census, which states that the total population is 358,833. Maternal and Child Health (MCH) services will be targeted at all women of reproductive age and children under-five years. Using population proportions of 17% and 20% respectively, Merlin's MCH initiatives address the needs of 61,000 women and 71,766 children.

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<sup>16</sup> 1988 Census

### III. PROGRAMME PERFORMANCE

#### A. PROGRAM PERFORMANCE VIS-À-VIS OBJECTIVES

##### OBJECTIVE # 1:

To improve the provision of basic health care to vulnerable communities in Lodja North & South health zones of Kasai Oriental

##### 1. ACCOMPLISHMENTS

###### SUB-OBJECTIVE #1

*To support primary health care delivery at a total of 20 health facilities in Lodja North & South health zones through regular provision of affordable essential medicines and renewable medical supplies*

###### Targets:

- Drug consumption patterns for each health zone recorded and monitored on a monthly basis
- Zero shortage of essential drugs at all supported health facilities
- Standard treatment guidelines available and in use at all supported health facilities

After conducting assessments of health centers within both health zones, Merlin, along with the MIP and the BCZS personnel, identified 20 health centers to receive support from Merlin. This support has involved monitored distribution of essential medicines and renewable supplies at affordable prices, basic equipment supply, training, support, and technical supervision of local health staff.

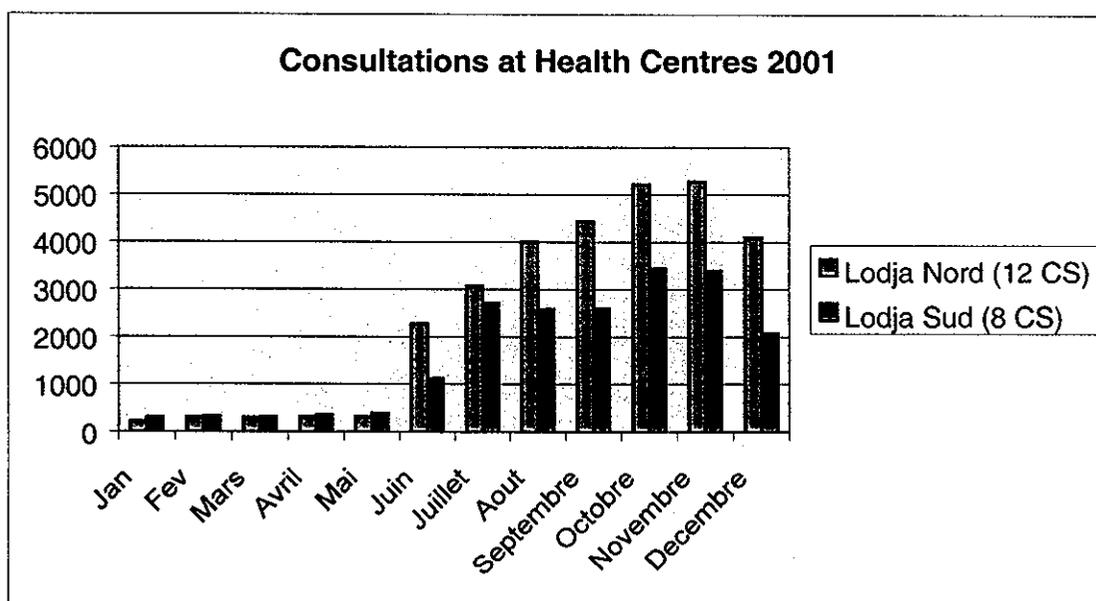
Drug consumption reports were collected from each health center and analyzed monthly. Initially drug shortages occurred in many facilities due to the failure of the charge nurse to request additional medication prior to a rupture in the stock. Some difficulties have also been experienced due to shortages at Asrames of some of the required drugs. Steps taken to address these problems included: intensive supervision including regular review with charge nurses of techniques for analyzing drug consumption patterns, as well as the procedure for placing drug orders; discussions with Asrames regarding the stocking of medicines for Merlin. Health centers have been advised to calculate stock alert levels for all drugs and to send a requisition at least 5 days prior to depleting their stock. This allows time for the requisition to reach the Merlin office and gives 3 days to fill the order. By the end of the project period 90% of essential drugs were available in all facilities.

At each health center standard treatment guidelines are in place. To ensure appropriate utilization of medications, Merlin and the BCZS provide close supervision (1 visit every 1-2 weeks per health center). Initially, poly-pharmacy was a common practice, but there have been significant improvements in rational prescription as a result of intensive supervision. By the end of the project period, at least 80% of the prescriptions were rational, and in a number of facilities the percentage was higher. All supervisory visits continue to assess this aspect and supervisors provide additional education when necessary.

Overall, utilization rates at the health centers have increased dramatically since the delivery of medications and supplies. However, utilization rates at the health centers have fluctuated in the

final quarter. While the total number of consultations in Merlin-supported facilities rose in November, it dropped significantly in December. Discussions have been held with the COSA members and health center staff to ascertain possible reasons for the drop in attendance in December. Merlin had some concern that the increase in prices of medications and consultation fees instituted in mid-November was contributing to the decrease in utilization. While some clinics reported that indeed there were complaints from the population when prices were increased, a majority felt that this was neither a big problem nor a major contributing factor to the drop in attendance. Rather, they attributed the drop in attendance to the holiday period in December, at which time they say it is common for people delay visits to a health facility. Another potential reason given was that December is a month when many people are harvesting their rice. Therefore, because there is much work to be done they do not take time to come to the health center. Utilization rates will be closely monitored in the upcoming months to see if the downward trend continues. The household financing survey planned for later in this project period may also shed some light on the communities' response to current prices for health care. See Figure A for attendance rates in Lodja North and South.

**Figure A: Lodja North and South Attendance rates**



### Sub-Objective #2

*To support the provision of secondary level care (general and obstetric) at 3 - 4 referral health centers in Lodja North & South and Lodja General Reference Hospital (obstetric care) through the provision of basic equipment and staff training*

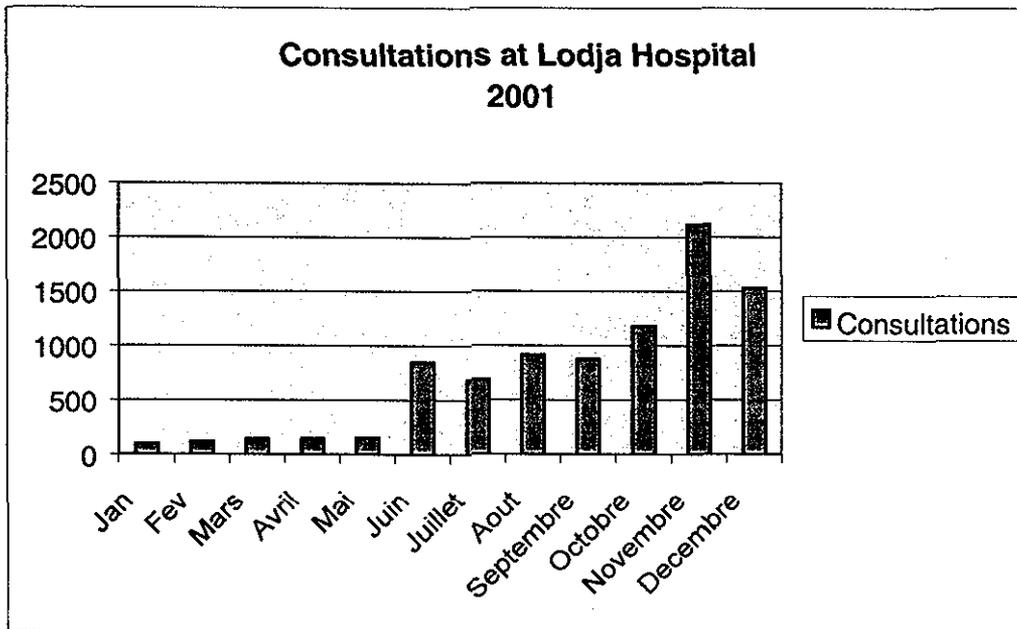
#### Targets:

- Provision of medicines, basic surgical and obstetric equipment to hospital
- Provision of training in laboratory techniques, obstetrics training, sterile techniques
- Upgrade 2 health facilities in each health zone to secondary referral standards

Similar impressive increases in consultation rates at the hospital have been realized since the initiation of assistance. In the final quarter, utilization of the outpatient clinic of Lodja hospital

rose in November but dropped slightly in December (See figure B). The number of inpatients increased from 142 in October to 164 in December. Merlin has worked with the hospital administration to improve its efficiency in handling the increased workload. Progress has been demonstrated by the fact that consultations are completed in a more timely manner, although delays do occasionally occur. Merlin has also worked through on-site training and supervision to improve the quality of inpatient care at the hospital and the professionalism of the nursing staff.

*Figure B: Attendance Rates at Hospital.*



In December, a surgical table and a sufficient amount of surgical linens to meet the increased workload were supplied to the hospital. In the second reporting period sterilization equipment and some linens were also given. Post-operative infections are reported to have decreased significantly since Merlin started its support to the hospital.

One health center in Lodja South (Okolo) has been upgraded to a secondary level care facility and the MCZ performs consultations as well as surgeries there. A second health center (Ngoma Lodi) will be upgraded to referral level in January when a qualified charge nurse will be assuming duty there.

**Sub-Objective #3**

*To promote quality care in each of the supported health facilities through clinical training, effective diagnosis and treatment of prevalent diseases like malaria, diarrhoea and acute respiratory infections.*

**Targets:**

- **Training sessions on basic clinical skills for health center nurses in Lodja North & South**
- **Training sessions on laboratory techniques**

Merlin has focused on improving curative services for the five most common causes of morbidity and mortality in the supported health zones. Supervisory visits have focused on strengthening lessons learnt by 20 clinical head nurses during the rational prescription workshops held in May. Reviews of consultation forms indicate that the diagnostic techniques of the nurses in some health centers are still weak. Appropriate treatment of the prevalent diseases is reviewed during supervision using diagnostic flow charts given to each health center in the workshop. In addition, nurse supervisors as well as the MCZ sometimes perform joint consultations with the health center nurses during supervisory visits in order to both assess current practices as well as provide further education.

During the ten-month project period, CALME, the local NGO facilitated training sessions for laboratory personnel at all health centers and the hospital. Supervisors from the BCZS and Merlin also participated. An assessment/evaluation of current services at 3 health centers, which had not received training, and at 4 health centers, which had already received training. A questionnaire was conducted at all 7 health centers. At the three centers, which had not yet received training, 16-38% of questions were answered correctly while the health centers that had received training produced scores ranging from 67-82%. This indicates that the training served to improve the capacity of those who participated.

Education regarding health promotion skills has also been provided in monthly meetings and supervisory visits with charge nurses from each health center. In addition, this area was covered in the training of 25 traditional birth attendants (TBAs) which was held in October.

**Sub-Objective #4**

*To intensify maternal and child health services in Lodja North & South through the introduction of safe motherhood initiatives and effective growth monitoring for children in the under-5 age group*

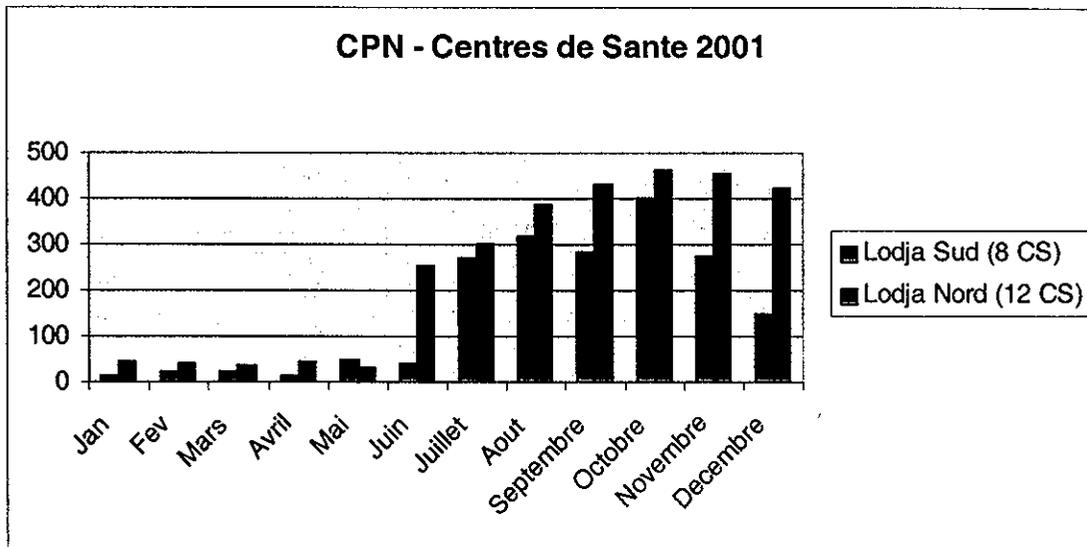
**Targets:**

- **A minimum of one pre-natal and pre-school clinic session per week to be held in each of the supported health facilities**
- **Training session on Safe Motherhood Initiatives (SMI) for health center nurses in Lodja North & South**

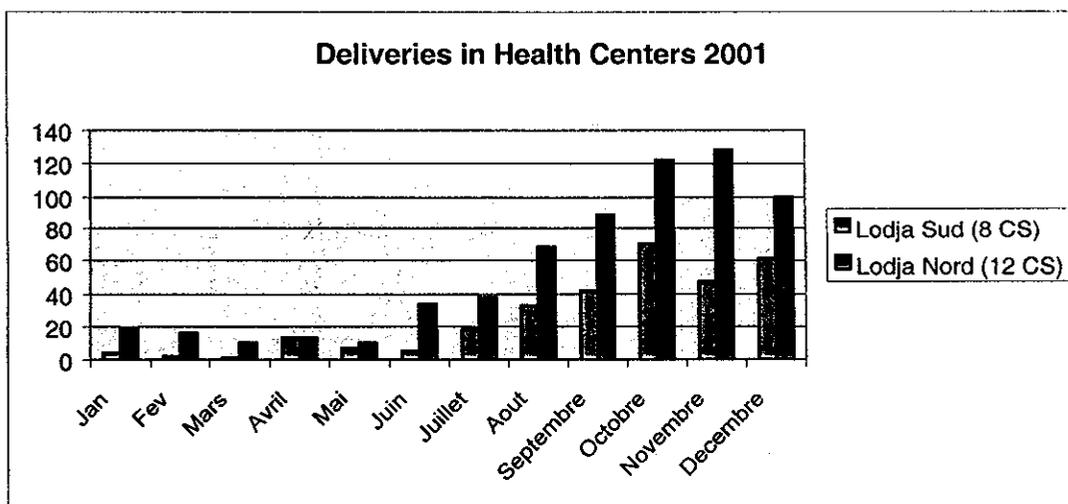
Early in the project period, two training sessions on safe motherhood initiatives and the active management of labor were held for 23 midwives from the health centers and hospital. The subsequent increase in the number of antenatal visits and deliveries performed at the health centers and hospital indicates that the training and assistance provided by Merlin has had a positive effect. Antenatal consultations at supported facilities increased from less than 100 in non-supported months to 959 in October, although in December it dropped below 700. In the

final quarter in Lodja North, ANC coverage is estimated at 29% while in Lodja South it is 46%. Prior to Merlin support, total deliveries in health centers and hospital were usually less than 30 per month. Numbers of deliveries in supported health facilities have increased more than four-fold in this project period from 50 in June to 231 in October, dropping to 210 in December. In Lodja North deliveries at health centers account for 30% of those expected while in Lodja South it is 47%. (See Figures C & D)

**Figure C: Antenatal attendance in health centers and Lodja hospital**

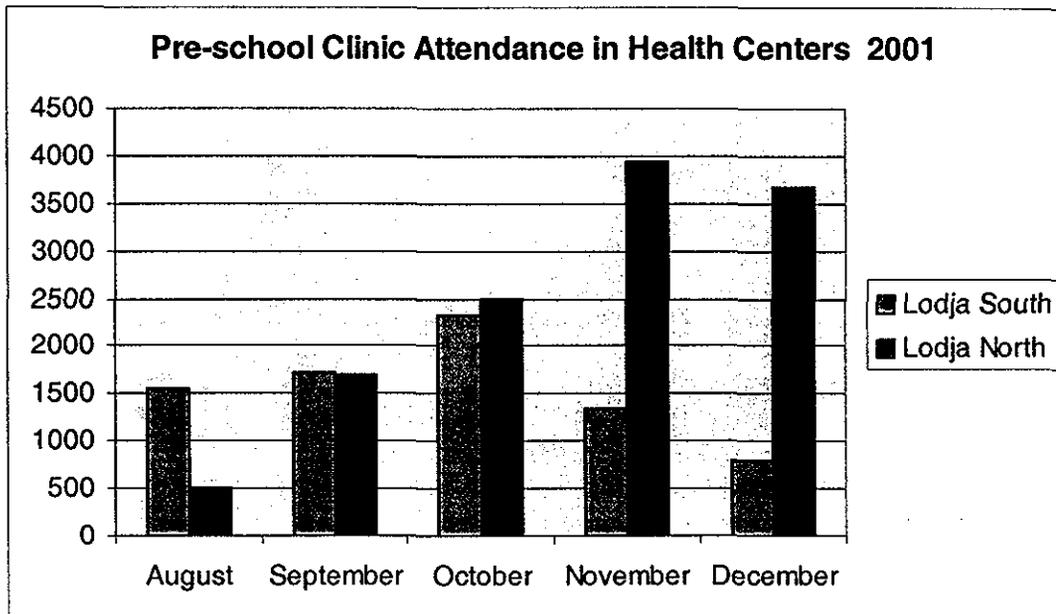


**Figure D: Deliveries in Health Centers and Hospital**

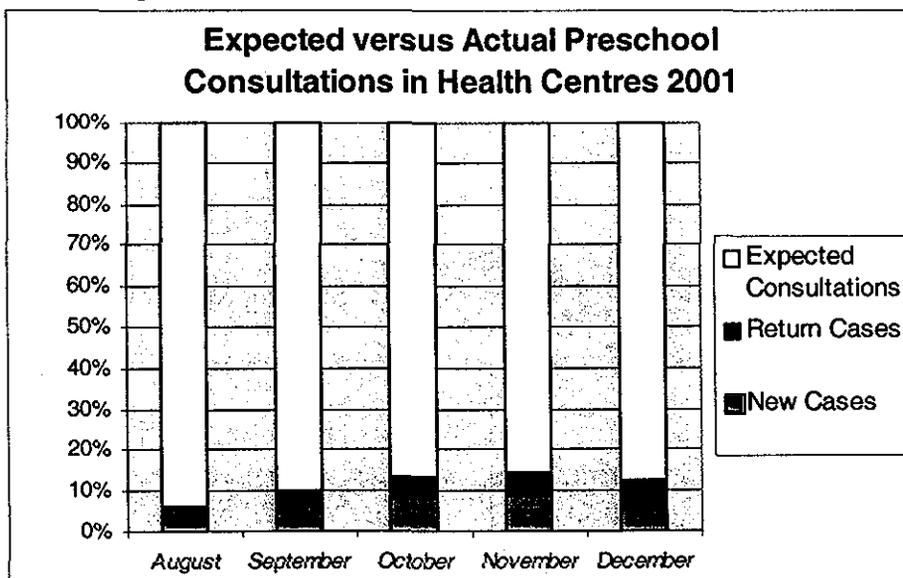


“Road to Health” cards and Salter scales were distributed to the health centers in July and August. Many clinics started growth monitoring in August, but attendance was low. As of December, pre-school sessions clinics are being held weekly at 90% of the health centers. Although attendance remains low. Community sensitization has been started to encourage attendance at these sessions. Average attendance (including new and return cases) in Merlin supported clinics in Lodja North and South has increased in this reporting period, but coverage is still low at 15.5% of expected consultations (See Figures E & F).

**Figure E: Pre-school clinic attendance**



**Figure F: Expected versus Actual Pre-school Clinic Attendance**



The drop in attendance at both antenatal and preschool clinics in December was due in part to inadequate numbers of staff to conduct the clinics. Several midwives were absent from the health centers for an extended period of time over the holiday period, whilst some others were ill. Extended absences of assigned staff from the health centers appear to be difficult for the BCZS to control. In addition, it has remained difficult for the BCZS to locate qualified staff who are willing to live in the more remote rural areas.

Another reason for the low attendance at preschool clinics is that for many years, this service has not been available and therefore its value has not been recognized. Continued community education is needed to encourage parents to bring their children to the clinics, as the overall percentage of children attending these clinics remains low. It is anticipated that once immunization activities commence, attendance at preschool clinics may increase.

Regular follow-up supervision has been provided by the Merlin midwife and nurse supervisors following the training to reinforce material covered and to ensure that weekly antenatal clinics had commenced. Initially there were some difficulties due to preoccupation with JNV activities and the absence of midwives from some health centers for a variety of reasons, but by the end of project period, weekly antenatal clinics were being held in 90% of the health centers. Each clinic has been supplied with an adult scale, measuring tape, fetoscope, sphygmomanometer, stethoscope, delivery instruments sets, antenatal consultation forms, and partograms to facilitate the work

#### **Sub-Objective #5**

*To re-establish routine immunization services through the provision of cold chain equipment, disposable needles and syringes and regular distribution of vaccines to supported facilities.*

#### **Targets:**

- **Routine EPI services established in each supported health facility by the end of the project period**
- **Immunization coverage target plans established with BCZS by end of project period**

An assessment on the current cold chain status and of the immunization personnel has been completed and demographic data has been collected by each health center following the completion of JNV. The equipment has been ordered and has recently arrived. Two 6-day EPI training sessions were held in November/December for a total of 50 participants. Participants included some BCZS and Merlin supervisors as well as charge nurses from 40 health centers in Lodja North and South. The MIP also completed the training he organized for MCZs, EPI personnel, and some BCZS EPI supervisors.

Discussions were held with EPI and UNICEF regarding the supply of solo-shot syringes for use in routine immunizations in Lodja North and South. Prior to these discussions, UNICEF had distributed sterilizers and re-usable syringes. Merlin was assured UNICEF would provide the full quantity of solo-shot syringes necessary for routine EPI activities in all health centers in Lodja North and South. Merlin agreed to include nurses from non-supported facilities in the EPI training as mentioned above. Immunization activities commenced in 5 Merlin supported health centers in December.

**Sub-Objective #6**

*To ensure safe blood transfusions at Lodja GRH and 3 - 4 referral health facilities through the provision of equipment and test kits*

**Target:**

- **Provision of test kits and refrigeration at hospital level**
- **Training of laboratory personnel**

HIV test kits have been given to the hospital and Okolo referral health center and HIV tests are performed on all transfusions. Due to the fact that most transfusions are ordered when the need is critical, laboratory staff have found it difficult to perform the VDRL testing prior to administering transfusions because this test takes longer to perform. Merlin will therefore explore the feasibility of creating a small storage of pre-tested units of blood, to be replaced by family members of transfusion recipients.

Training of laboratory personnel was done in three different sessions in September and October.

**Sub-Objective #7**

*To investigate the potential for cost-sharing within supported health facilities and if deemed appropriate, to introduce a system, which ensures those identified as vulnerable receive free medical services*

**Target:**

- **One training session on cost-sharing for all supported health staff performed by mid- project**
- **Cost-sharing introduced to all supported health facilities by the end of the project period**

Prices (set in franc congolaise) for medication and services have been maintained at the initial levels in order to ensure accessibility of health care. There has been an extremely positive response from community members regarding the cost of medication and services. The dramatic increase in attendance at both the health centers and the hospital indicates that the prices are indeed much more affordable. The average total cost for a visit to the health facility is \$0.25, which includes consultation fees, medications and laboratory exams.

Portions of the money collected from the sale of medication and from consultation and laboratory fees are being used to provide an incentive for the healthcare workers. The charge nurses, the BCZS, and Merlin, have agreed on the partitioning of this money. Currently 60% of the money stays at the health center for incentives along with 5% for functioning costs, 15% is returned to BCZS and 20% is saved for future use, for example, for small rehabilitation or equipment purchases. The COSA members will make decisions on how this money is to be used. Currently, Merlin collects the money, changes it into dollars to minimize devaluation, and guards the funds for the health center.

Income for health center staff has increased in dollar value since the previous reporting period. The average total monthly income of the health center has increased from \$55 in the previous reporting period to \$83 in this reporting period with the incentive for the charge nurses averaging \$11.00 per month as compared to \$9.00 per month in the last reporting period. The hospital income has increased from \$200 per month prior to Merlin's assistance to \$1128 in October and to \$1164 in this reporting period. The monthly incentive received by the hospital nurses has

remained the same since October at \$12 per month in this reporting period. While staff are thankful to receive some incentive, they feel it is insufficient when compared with the amount of work required with the increased patient load and additional documentation. This is a continual source of frustration for them and is brought up for discussion at virtually every meeting and supervisory visit. It is clear that some form of incentive is necessary if health care personnel are expected to perform well and remain motivated.

**Sub-Objective #8**

*To support disease surveillance and data management systems through critical review, training of health staff and epidemiological assessment of recent disease outbreaks to maintain an emergency response for epidemic outbreaks in all supported facilities*

**Target:**

- **Standard monitoring and recording forms introduced in all supported health facilities by end of project period**
- **One training session on basic epidemiological surveillance for all supported health staff**
- **Merlin medical team will discuss analyzed data on a monthly basis with BCZS staff to identify changes in disease patterns of public health significance**

Epidemiological reporting forms were received from all health centers, although 15% of health centers submitted them after the 7<sup>th</sup> day of the month, which is the deadline given for the receipt of monthly reports. There has been collaboration with the BCZS to organize the monthly collection and analysis of data. A training session on basic epidemiology was included in the EPI workshops held in November and December. The major causes of morbidity in the clinics were malaria, worms, Sexually Transmitted Diseases (STDs), Acute Respiratory Infections (ARI), and diarrhoea (Figures G & F). Disease patterns have remained constant through the project period with malaria being the number one cause of morbidity.

*Figure G: Morbidity Under 5 Years – Lodja North & South*

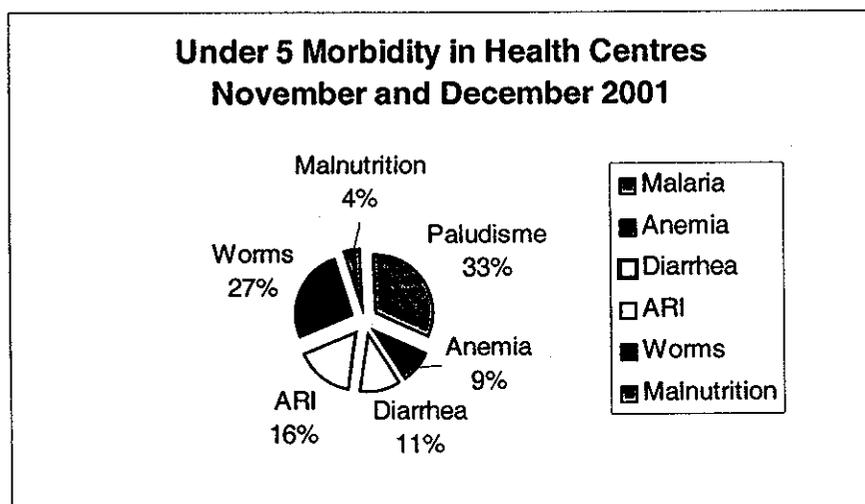
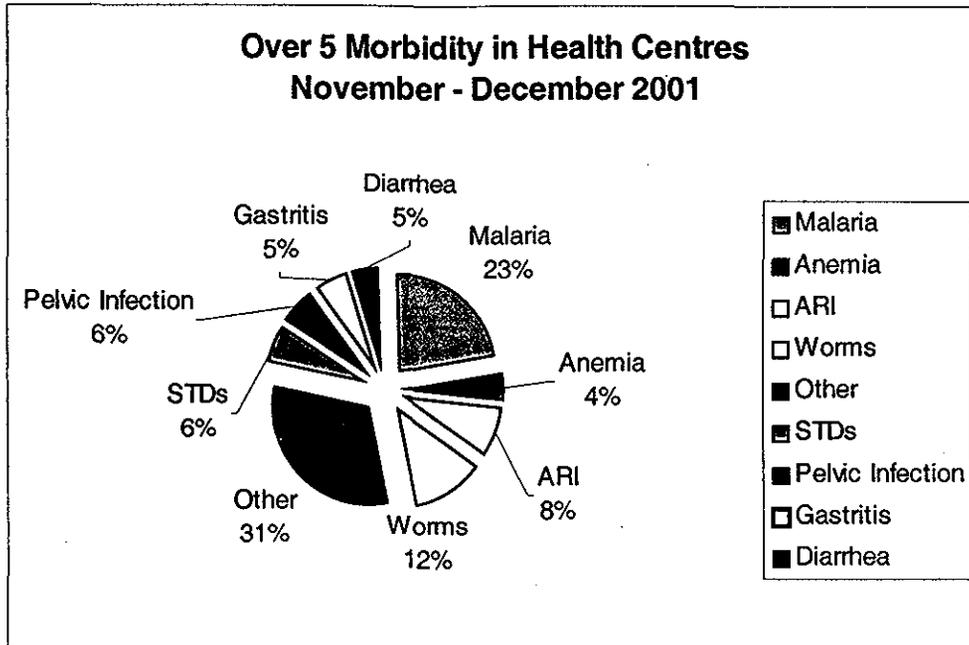


Figure F: Morbidity Over 5 years – Lodja North & South



As reported in previous reporting period, during October, Merlin supported the BCZS in responding to measles outbreaks, one in Lodja North and the other in Lodja South. In December, Merlin assisted the BCZS of Lodja South to respond to a measles outbreak in another aire sanitaire. Merlin was asked to provide transportation and logistical support. In addition, Merlin assisted with the supervision of these activities. A total of 5008 children under 5 years out of a total of 5226 were vaccinated in 5 aire sanitaires, providing 96% coverage.

Malaria and ARI account for most deaths amongst adults and children. Crude and under-5 mortality rates calculated from Merlin-supported health facility data suggest a normal situation, however this is considered unlikely given the current DRC context, namely, lack of access to health care and gross under-reporting of deaths from health facilities and communities not supported by Merlin. Merlin will investigate more appropriate ways of estimated mortality with the BCZS (e.g. retrospective mortality studies).

#### **Sub-Objective #9**

*To actively encourage community participation and awareness of disease control and maternal/child health in the supported health zones through appropriate training of identified health providers*

#### **Target:**

- **Training needs of Community Health Workers (CHWs) and Traditional Birth Attendants (TBAs) in supported communities identified**
- **Training session on health promotion, basic diagnosis and treatment for all supported CHWs &/or TBAs performed by end of project period**
- **All supported CHWs and TBAs regularly providing community health updates to health facility on a regular basis by end of project period**

Twenty TBAs (12 from Lodja North and 8 from Lodja South) were trained in October and November and returned to their villages to work. Reports were received from 90% of them in November and December. They reported 227 antenatal consultations in November and 326 in December. Deliveries attended were 28 for November and 82 in December. Midwives from each health center have been supervising the TBAs following their training.

Training of community health workers has been delayed until early 2002 due to time constraints.

#### **Sub-Objective #10**

*To improve the district health management capacity through training, technical support and supervision of peripheral health facilities in Lodja North & South health zones*

#### **Targets:**

- **Each BCZS/Merlin team to have at least one meeting per month for training and operational discussions**
- **Each BCZS to supervise at least 60% of the supported peripheral health centers under their jurisdiction monthly**
- **Merlin medical team to have supervised all supported health facilities in Lodja North & South on a monthly basis**

Good working relationships have been established with the BCZS staff from Lodja North and South. Since the last reporting period, an MCZ has been appointed to work in Lodja South. Merlin has reviewed the current working agreement with him and it has been signed. The MIP for Kasai Oriental continues to be extremely supportive of project activities and very involved in the decision-making process regarding various operational issues.

Monthly meetings are held between each BCZS team and Merlin's medical team. Each health center is discussed individually and supervisors who have visited the health center present their findings. Problems are identified and solutions proposed. At each meeting there is a review of the previous month's issues to ensure that they have been adequately addressed.

BCZS staff have provided regular supervision at all supported health facilities. Frequency of visits is as follows: nurse supervisors provide monthly supervision; the administrator supervises on a bi-monthly basis and the MCZ supervises on a quarterly basis. 100% of visits have been completed in this reporting period. In the absence of a supervision form, the BCZS opted to use Merlin's form. The quality of BCZS supervisory visits has gradually improved following the initiation of the monthly meetings.

Members of the Merlin medical team have provided intense supervision with an average of 2 to 3 visits per health center per month. Frequent visits have been necessary to ensure compliance with rational prescription guidelines, as well as to evaluate diagnostic techniques and to assist in the proper completion of all required reports. Although these areas were all covered in the initial workshop for charge nurses, follow-up training at each health center has been necessary. After years of substandard reporting, it has taken time to improve their quality. Progress has been made as a result of frequent supervision by Merlin and the BCZS.

**Sub-Objective #11**

*To perform minor rehabilitation of water and sanitation facilities at all supported health centers*

**Targets:**

- Each center to have the minimum standard of one functioning latrine, waste disposal pit, a rainwater catchment system and an incinerator
- Each health facility to have a roof, which protects it from the elements – rain and wind
- Each health facility to have safe, clean flooring in the main consultation /dressing area
- Each facility to have a safe secure area for storage of drugs and other medical supplies
- Each facility to have basic equipment such as beds/couches and mattresses

The renovation and new construction needs vary from health center to health center. With strong community participation, 12 new health centers have been built, four health centers will receive an annex to increase their consultation and laboratory space, and four health centers will be renovated as their respective needs dictate.

All new health center construction has been completed and water catchment systems installed. Annexes and renovation projects are underway. Latrines and incinerators are being built, with the help of strong community participation.

All 20 supported health centers have been provided with three hospitalization mattresses, a consultation table, chairs, and a drug storage armoire.

**2. COMPARISON OF ACTUAL AND PROPOSED ACCOMPLISHMENTS**

**2.1. Support of health care delivery through the supply of medications and materials to 20 health centers and the district hospital**

Poor diagnostic acumen, irrational prescribing practices, and general poor management of drug stocks were evident deficiencies at the health center level in Lodja North and South and have presented some challenges in avoiding stock shortages at the clinic level. A history of limited and fixed quantities of drugs available from the Bureau Diosecain des Oeuvres Medicales (BDOM) has led to a lack of initiative in clinic health staff to respond to diminishing stock levels. This issue has been addressed in follow-up supervisory visits where the importance of assessing and requesting additional stock before supplies are deplete has been underlined.

In addition, BCZS and Merlin staff have placed heavy emphasis on reinforcing training given on accurate diagnostic techniques and rational prescription practices. The supervisors and MCZs have taken the time to consult in conjunction with the clinic staff during visits in order to better evaluate and ameliorate this problem. The response has been positive and an improvement in these areas has been noted with stock shortages being eliminated in many clinics. However, there are still a couple clinics that need to improve their ability to estimate monthly needs and to request drugs in advance of a rupture of stock. These clinics are being targeted for additional training in this area.

Average consultation rates are still somewhat lower than the WHO standard of 1 consultation per person per year: in Lodja North the figure is 0.51 consultations/per person/per year and in Lodja

South the figure is 0.72/per person/per year. As outlined earlier, these figures may be somewhat elevated. Although all reports are eventually received, a few continue to arrive after the first week of the new month. However, the number of tardy reports has reduced significantly as compared to the previous reporting period. Supervisors have spent much time reviewing and correcting reporting errors with health center staff leading to increased accuracy of the reports.

## **2.2 Maintenance of access to basic referral services**

Although several Merlin supported health centers are referral centers by name, the reality is that only one health center, Okolo, in Lodja South currently meets the requirements of a referral center. Merlin is assisting Okolo health center and the hospital to improve the standard of care offered. Utilization rates of the hospital and its outpatient clinic have increased dramatically. Attendance is also increasing at Okolo Health center, where the new MCZ is now working. An additional health center will be upgraded to referral level in Lodja South in January when a qualified charge nurse will be assigned to this clinic.

## **2.3 Maternal and Child Health Services**

Ninety percent of health centers have weekly Consultation Prénatale (CPN) and Consultation Préscolaire (CPS) clinics, although attendance is still low. The drop in attendance at these clinics during this reporting period followed the general trend of a decrease overall consultations. Possible reasons were outlined above and the situation will be closely monitored in the upcoming months. Mobilization efforts are underway to encourage communities to utilize these services. It is hoped that when vaccinations are offered at these clinics, attendance will improve.

The first training of TBAs has been completed and they have been supplied with delivery kits. The initial output seen has been encouraging. Their activities will continue to be monitored through the submission of their monthly reports and supervisory visits.

## **2.4 Routine Immunization Services**

Sporadic routine immunization services are offered in Lodja town. The training planned for EPI has been completed and vaccination activities commenced in five Merlin supported health centers in Lodja North. There have been a number of difficulties experienced due to poor planning by the BCZS but these problems are being addressed. Lodja South continues to be delayed in organizing their EPI activities, but it is envisioned they will commence in January.

## **2.5 Safe Blood Transfusion**

Blood for transfusions is currently being tested for HIV as this examination can be done immediately. Merlin is awaiting the arrival of the hepatitis test kits in order to provide additional services.

## **2.6 Maintenance Of Epidemiological Surveillance And Emergency Preparedness**

Merlin has provided logistical support to the BCZS in responding to a measles outbreak in Lodja South during this reporting period. Coverage was improved (96%) as compared to previous measles vaccination campaigns.

## **2.7 Capacity Building**

Merlin has been working closely with the BCZS in both health zones. Supervisory skills are gradually improving. Merlin will continue to work closely with the BCZS on EPI activities as it is evident this is an area, which has significant room for improvement.

## **2.8 Rehabilitation**

After overcoming the logistical challenges which made rehabilitation progress extremely difficult, Merlin has made great progress towards the renovation and construction of adequate health center facilities. Renovation of the maternity at Lodja general hospital and construction of 12 new health centers has been completed. Significant progress has been made at each of the eight remaining health centers. Strong community participation has been central to accomplishing this work.

The newly renovated maternity at Lodja general hospital currently has a bed capacity of twenty in the maternity ward and twenty in the obstetric/gynecological ward. The renovation included building new support walls to stabilize leaning exterior walls, patching cracked walls as necessary, and repairing the maternity's foundation to prevent future structure destabilisation. The surrounding terrain was re-graded to pitch rainwater away from the facility. The roof and ceiling were repaired as necessary. Twenty-two new windows were installed with accompanying mosquito-proof window screens on every window. The maternity floor was repaired as necessary, and a water evacuation system was installed in the delivery room. Two consultation rooms and one office were built to meet the maternity's need for adequate consultation and office space. Two coats of water repellent paint were applied throughout the entire interior of the maternity. Furthermore, maternity beds were made and mattresses purchased to accommodate up to 20 patients, mosquito nets were also purchased and installed for each maternity bed. Finally, the maternity was inaugurated and opened for use by the community.

To meet the need for additional consultation and laboratory space, annexes were constructed at four health centers. Community participation in the construction of these annexes was essential, with all bricks and other local materials being provided by the community. Finally, durable zinc roofing material was purchased and installed on each of the four annexes.

At 12 of the health centers the existing facility was deemed inadequate for health center use and beyond repair. In the case of these health centers, new facilities have been constructed. The health center communities are provided all local materials, including 12,000 adobe bricks for each health center.

Merlin is also renovating, as necessary, the four remaining health centers, which will not require an annex or an entirely new facility. Renovation of these facilities is progressing and their completion is imminent.

Finally, safe drinking water catchment systems have been purchased and installed at all twenty supported health centers. Each system has a storage capacity of 500 liters.

## **B. POSITIVE EFFECTS OF PROGRAM ON TARGET POPULATIONS**

Merlin is the first NGO in some years to work in Lodja North and South. Although local capacity to meet health needs in these zones is inadequate, the existing health infrastructure has a base for basic service provision. The external input by Merlin to meet the demand for health services in

these zones has greatly improved financial access, and the quality of service provided. The health needs remain immense and require extensive logistical and technical support. Nonetheless, the improved access to basic health care has been a major and positive consequence of Merlin's support to the health sector in these zones. The general population as well as local authorities have expressed much gratitude and delight in the assistance Merlin has been able to give thus far. They are also aware of Merlin's commitment to building the capacity of the local health staff. This has greatly improved confidence in the local health structures.

Most communities have responded very well to requests for upgrading existing health structures. They have participated in making bricks and gathering other local materials for the rehabilitation or construction of health centers. In some communities, when there has been a need for houses for newly assigned health staff, the community has come together to provide this need, after encouragement from Merlin and the BCZS. In other areas where the roads have become almost impassable in the rainy seasons some communities have assisted in repairing the route and others have repaired or constructed bridges.

With Merlin's support through this OFDA-funded project, technical, material and financial support has enabled the re-establishment of basic services in the supported health zones. A gradual return of confidence in the local health system is being re-instated. Merlin intends to continue to strengthen and improve the relationship between the local health system in Kasai and the communities through its activities geared towards supporting PHC in Lodja North and South. Merlin projects anticipate the strengthening and assurance of a strong foundation for the continuation of primary health care services in Kasai on a longer-term basis.

#### **C. EFFECT ON OVERALL PROGRAM PERFORMANCE OF UNFORESEEN CIRCUMSTANCES**

The health staff at the hospital and health centers have not received any form of salary for several years. This has proved a major obstacle to the motivation of these workers and the quality of health care has suffered as a result. Whilst the system for cost-recovery initiated by Merlin provides healthcare staff with an opportunity to receive a monetary incentive, the risk of over-prescribing, in order to increase income, exists. Already the health center and hospital staff are complaining that the incentive received is not sufficient when compared with the workload as well as with the cost of living. A price increase was initiated in November in order to address this situation and has improved the income somewhat. However, if prices for medication are linked to the dollar index and adjusted accordingly, it will not be long before they are no longer affordable for the general population.

#### **D. BREAKDOWN OF EXPENDITURE**

The financial report covering the period between November 2001 and January 2002 was submitted to OFDA on the 20<sup>th</sup> March and is attached as Annex I.