

SPECIAL LEM COMBINED WITH THE DEVELOPMENT OF PROVINCIAL PLANS IN MOZAMBIQUE

9 - 24 MARCH 2007

REPORT

1. JUSTIFICATION

Mozambique implemented intensified activities to eliminate leprosy in the 5 leprosy endemic provinces (Cabo Delgado, Manica, Nampula, Niassa and Zambezia) from 2000 to 2006, including: LECs and mini-LECs, COMBI and modified COMBI projects in Nampula and Manica, Updating of Leprosy Registers in 4 provinces, Increasing the number of MDT distribution points run by village volunteers, holding leprosy days at village level in most endemic districts and setting the leprosy case based computerized application as a pilot project in Cabo Delgado.

Further to these activities, the trends of leprosy prevalence decreased regularly, following the prevalence decrease in Nampula Province. At the end of 2004 prevalence rate at national level is 2.46 per 10.000 population. Adversely, prevalence detection ratio that became less than 1 in 2002, after updating leprosy registers in Northern provinces (Nampula and Cabo Delgado) and Zambezia, increased again in 2003 and became higher than 1 at the end of 2004. Furthermore in 2005, prevalence rate increased up to 2.59, making Mozambique the country with the highest leprosy prevalence rate in the WHO African Region. The prevalence detection ratio of 0.91 during the same year shows the increase of the number of registered cases is linked to strengthening case detection activities through leprosy days and volunteers' involvement in more MDT distribution points. During the first quarter of 2006, 1,305 new cases were notified, 51% of that detection is from Nampula province only.

This trend of the disease justifies carrying out specific activities to assess the quality of leprosy ongoing activities and to accelerate the elimination of leprosy in the country by designing specific provincial plans of work.

2 OBJECTIVES

2.1 General objective

To accelerate leprosy elimination activities implementation in 5 high endemic provinces

2.2 Specific objectives

1. To analyse the leprosy diagnosis in a random sample of new cases in 5 high endemic provinces (Cabo Delgado, Nampula, Niassa, Sofala and Zambezia)
2. To update accordingly district leprosy registers in visited districts
3. To carry out a Leprosy Elimination Monitoring (LEM) process in visited health facilities and MDT distribution points of the same districts
4. to develop specific plans of work to tackle the leprosy problem in each of these 5 provinces

3. METHODS AND PATIENTS

The special LEM combined three types of actions:

1. Assessment of leprosy diagnosis quality in a random sample of 2007 new cases
2. Updating leprosy registers in districts visited for diagnosis quality assessment
3. Collection of LEM data in health centres, MDT distribution posts and patients of visited districts

Analysis of collected data and information will lead to designing specific provincial plans of action for achieving leprosy elimination at National level by the end of 2008 at the latest.

Four teams were organised to visit the 24 selected districts in the five provinces:

1. Team 1 : Dr Samuel and Mr Matias Dos Anjos visited one district in Niassa province and 5 districts in Cabo Delgado Province
2. Team 2 : Dr Landry Bidé visited six districts in Nampula province
3. Team 3 : Dr Htoon Myo visited five districts in Nampula province
4. Team 4 : Dr Alcino Ndeve and Dr Tiendrebeogo visited six districts in Zambezia province and 1 district in Sofala province

4. RESULTS AND RECOMMENDATIONS

NIASSA and CABO DELGADO provinces, team 1

The Leprosy Elimination Monitoring was carried out in a Mandimba district of Niassa province (10 to 12 March 2007) and five districts of Cabo Delgado province (from 13 to 20 March 2007): Balama, Macomia, Montepuez, Namuno and Pemba Cidade. The team visited two health centres in Niassa and 7 other ones in Cabo Delgado.

Major findings and recommendations of this monitoring are as follows:

- Twenty six patients were re-examined in these facilities and proportions of errors of diagnosis were respectively 0 and 5.2 % in Niassa and Cabo Delgado respectively. There was only one error of diagnosis in the health centre of Balama out of the 26 reviewed patients in both provinces.
- All 7 registered patients in Mandimba District were kept in the register. Out of these patients only one is a 2007 new case. In Districts visited in Cabo Delgado, only the misdiagnosed case were withdrawn from the register leaving prevalence at 122 registered patients at the end of field visits.
- LEM indicators calculated from patients' questionnaire show early diagnosis in all districts, with no cases of grade 2 disabled new patients. Treatment completion rate is high and availability of blister packs is good. Trends of detection and prevalence are decreasing in all visited districts
- Positive points: Good quality of diagnosis, high treatment completion rates, motivated health staff and volunteers, good availability of blister packs.
- Weaknesses: difficulty to classify disabilities in WHO scale, inadequate steroid treatment of leprosy reactions, poor effectiveness of supervision, deficiency in filling in surveillance forms and delay in reporting new cases with the case based report form for computerising leprosy data at provincial level
- Recommendations:
 - o To sustain MSL for early diagnosis, treatment and follow up of patients
 - o To use the new case based report form for notification

- To strengthen supervision and filling of surveillance forms at all levels
- To improve medicine and data management at all levels

NAMPULA province, teams 2 and 3

The leprosy elimination monitoring (LEM) was conducted by two teams in Nampula province from 12 to 19 March 2007. The first Nampula team visited 15 Health facilities delivering MDT in five districts: Mogincual, Mogovolas, Moma, Nampula Cidade and Nampula Districto. The second Nampula team visited 13 Health facilities delivering MDT in six districts: Erati, Nacala Velha, Mossuril, Murrupula, Mecuburi and Malema.

Major findings and recommendations of this monitoring are as follows:

1. Findings

a. Leprosy situation

▪ Current situation

The leprosy situation in the 11 districts selected for the monitoring was by the end of 2006 indicating a prevalence of 873 cases corresponding to a rate at 4.45 cases per 10,000 inhabitants. This prevalence rate is highest than the average rate of the Province which is 3.75 cases per 10,000 inhabitants (Tables 2 and 3).

With 1300 new cases during the year 2006, the 11 districts selected are accountable for more than 63% of the detection in the province. The most endemic districts are Mogincual, Mogovolas, Nampula Districto, Erati, Mossuril and Murrupula.

▪ Trend of the disease

The period of three years 2004-2006 selected for the monitoring is not wide enough to confirm the real trend of the disease but is sufficient to guide on perspectives. All leprosy elimination indicators in this period are showing a pick in 2005 which is the result of intensified leprosy activities organized during this year in the province (Tables 7 and 8).

During the short period of 2007, 69 new cases are detected against 300 expected. This may be a starting point in the decrease of the trend of the disease. The high proportion of MB (59.42%) and children (14.49%) among new cases and the very low proportion of new patients with disability grade 2 (4.35%) are in favour of the decrease of the trend.

Whatever is the trend of indicators, the leprosy situation is frightening. The 11 districts are very endemic and the burden of the disease is among the highest in the African Region.

b. Extent of the programme

▪ Coverage

The geographic coverage of the programme is good at 100%. All the 93 health centres of selected districts are delivering MDT. In addition, 260 community health centres are organized to support leprosy elimination activities (table 1). This strengthens the geographic coverage, enables access to treatment for all patients and contributes to rapid changes in the image of leprosy in communities.

▪ Integration

District supervisors are in charge of Leprosy and TB programmes. The magnitude of leprosy and the high commitment of health services to the leprosy elimination goal justify direct implementation of some specific activities. However an integrated supervision and a package of community based interventions are being developed to sustain priority programmes.

c. Quality of leprosy services

▪ Detection

The 2006 detection as reported (Table 2) and the distribution of 2007 new cases observed in health facilities visited (Table 4) clearly indicate a high proportion of MB cases, a limited number of deformity grade 2 at the detection and an important proportion of children. A conclusion of early detection can be drawn but will need to be confirmed with the analysis of information on the delay to diagnosis collected from patients seen. The early detection is an indication of coming out of last hidden cases in communities.

The quality of the detection is good. The proportion of 17.07% of wrong diagnosis among new 2007 cases seen (table 6) is surprising regarding the good knowledge of supervisors. The remote districts are the most affected with wrong diagnosis.

▪ Treatment and follow up

The table on the cohort analysis is not presented because 100% of 2005 PB cases and 2004 MB patients are cured within 9 and 18 months without any over or re-treatment. This fact is the result of advocacy campaigns and the reorganization of supervisions and logistic support to districts.

During the monitoring, only 5% of registered cases were cleaned out. This is a good indication of the quality of the follow up of patients and the reliability of reports.

▪ Drugs management

PBA and MBA blisters are available for 8 and 11 months in districts visited. The stock of PBC and MBC are more than enough in health facilities and cover respectively 47 and 37 months of current needs (Tables 9 and 10).

In many health facilities, different stocks of blisters are at risk of expiring and need a follow up for and readjustment and redistribution for effective use because validity dates are 2008 and 2009.

2. Some positive aspects

- Training: the health staff is well trained and leprosy is well known.
- Registration and report forms and books are regularly filled and correctly maintained.
- Communities are participating in leprosy activities community health workers are very motivated and enthusiastic.
- Health workers are dedicated to leprosy activities
- Collaboration with NGOs is a very good and NGOs are actively involved in leprosy work.
- Resources, including staff logistics and funds, are available at health facilities level and during the monitoring any request or complaint were raised neither from health workers nor from volunteers.

3. points to reinforce:

- supervisions in remote areas are weak
- the capacity of the staff to recognize cured leprosy lesion is low
- The involvement of Directors of health districts in leprosy programme is not perceived.

4. Recommendations

Findings of the LEM in the 11 districts clearly indicate that leprosy elimination activities development, in terms of (i) improving the coverage (ii) organizing an appropriate and adequate treatment of leprosy patients and (iii) involving communities in leprosy case management, are recent and not earlier than three years. During the period of the past three years, backlog cases and unreachable patients are diagnosed and treated. Obviously the trend will be decreasing in coming months and years. By now it is difficult to confirm the rhythm and a target year but it is evident that the trend of the prevalence in these 11 high endemic districts will influence the reaching of the elimination goal at national level.

We therefore invite the national and provincial health authorities to:

- maintain and sustain ongoing leprosy case management activities,
- reinforce supervisions in remote areas.
- sustain community health workers commitment because the strength of the programme will depend on the capacity to continue working with communities as the national health coverage is likely low.

ZAMBEZIA and Sofala Provinces, team 4

The fourth team visited 5 health centres and 7 MDP in 6 districts of Zambezia province (Alto Molocue, Gile, Ile, Maganja da Costa, Mocuba and Namarroi), one district hospital in Nhamatanda of Sofala province. Major findings and corrective measures of this monitoring are as follows:

Gile district:

- Three new cases were reviewed for the quality of leprosy diagnosis and only one was confirmed a case of leprosy (2/3 or 67% misdiagnosed patients)
- For updating the registers, only the 2 errors of diagnosis were removed from the district register
- LEM data were collected at District level, in Gile health centre and in two MDT Distribution points (MDP), Nacarara and Nanhope
- Positive points : MDT completion rate in MDP, availability of blister packs and slight decrease of leprosy prevalence and detection during the 3 latest years
- Weaknesses : Poor diagnostic quality, over-treatment in MDP and wastage of medicines, ineffectiveness of supervision visits
- Recommendations :
 - refresher training of volunteers,
 - training of new leprosy district supervisors and provincial coordinators,
 - suspicion of cases by volunteers in MDP and by health workers in health centres and posts,
 - confirmation of diagnosis by leprosy district supervisors,
 - reinforced supervision and assessment of diagnostic quality by Provincial supervisors and coordinators, National Manager and leprosy NPO to be recruited.

Alto Molocue district:

- No patient was available for the assessment of diagnostic quality in the visited 2 facilities (Molocue Sede and Mutala health centres)
- Therefore, we were unable to update the district leprosy register accordingly. Total registered cases remained 32 giving a prevalence rate of 1.25 cases per 10,000 inhabitants
- LEM were collected at district and visited health centre levels
- Positive points: MDT high completion rate and reducing trends of prevalence and detection with very few disabled and children among new cases
- Weaknesses: Insufficient stocks of blister packs in visited health centres and at district level
- Recommendations:
 - o to urgently supply the district and health facilities with MDT blister packs,
 - o to improve the management of leprosy medicines by applying the guidelines for blister pack supply to district, health centres and MDP
 - o to undertake the assessment of leprosy diagnosis quality by Provincial coordinator and National Manager or NPO

Ile district:

- Five patients (2 new cases of 2007 and three old cases diagnosed in December 2006) were re-examined in Breu MDP. Only 2 cases of December 2006 were confirmed cases of leprosy, giving a misdiagnosis rate of 60% (3/5). In the 2nd visited MDP of Interro, there was no new case
- Updating the district register from information collected in the 2 visited MDP enabled to reduce the number of registered cases from 16 to 13
- LEM data were collected in the 2 MDP and at district level
- Positive points: high completion rate, strong commitment of the district chief medical officer for leprosy elimination activities, including field visits
- Weaknesses: Shortage of MDT blister packs at peripheral and district level, poor quality of leprosy diagnosis, high proportion of disabled cases in Interro MDP, no PoD activities
- Recommendations:
 - o to confirm all 2007 new cases in MDP and health facilities by the leprosy district supervisor before registration and start of MDT treatment
 - o to carry out on-the-job clinical training during supervision and diagnostic confirmation visits
 - o to supply MDT blister packs to the district, to health facilities and MDP for complete treatment of registered cases
 - o to initiate PoD activities with the support of LEPRAs representative

Namarroi district:

- Three patients (2 new cases of 2007 and one case diagnosed in 2006) were re-examined in Mutepua and Lipali health centres and all were confirmed cases of leprosy, giving 100% of correct diagnosis
- Updating the district register from information collected in the 2 visited health centres and at district level did not reduce the number of registered cases that remained 7 in all the district with 2 new cases and 5 old cases. The prevalence rate is 0.62 per 10,000 in Namarroi district
- LEM data were collected in the 2 visited health centres and at district level. Prevalence and detection trends are decreasing during the 3 latest years

- Positive points: good quality of leprosy diagnosis as well as leprosy reaction diagnosis, high completion rate of treatment, availability of blister packs and Prednispac at all levels, effectiveness of the visits of the district leprosy supervisor
- Weaknesses: Risk of expiry of excess stocks of blister packs
- Recommendations:
 - o to return excess stock of blisters to provincial level for use in districts in need
 - o to combine leprosy activities with tuberculosis one and involve health workers and volunteers in Tb patients management
 - o District leprosy supervisor to support other district supervisors for assessment of diagnosis quality
 - o to initiate PoD activities with the support of LEPRA representative

Maganja da Costa district:

- Fourteen patients were re-examined in Macuva Nahalahai, Muitucula Logosa and Ginama MDT Distribution Points (MDP), all points covered by the health centre of Manlia. Out of those patients, six were misdiagnosed giving a proportion of errors of diagnosis of 43%.
- Updating the district register from information collected in the 3 visited MDP enabled to reduce the number of registered cases from 38 to 32 and a prevalence rate of 1.1 cases per 10,000 inhabitants in this district
- LEM data were collected in the 3 MDP and at district level. Prevalence and detection trends decreased from 2004 to 2005 and increased in 2006 due to the Social Mobilisation Campaign launched by National and Provincial Authorities following the World Leprosy Day.
- Positive points: Motivated volunteers in visited MDP, absence of leprosy stigma in visited communities, good completion rate of treatment
- Weaknesses: Mismanagement of blister packs and medium quality of leprosy diagnosis
- Recommendations:
 - o to improve blister pack management at district and MDP levels
 - o to strengthen MDP volunteer and Health centre staff supervision to reduce the errors of diagnosis
 - o Provincial coordinator and supervisors to support the district supervisor in the assessment of diagnostic quality

Mocuba district:

- Only one patient diagnosed in 2007 was re-examined in Intome health centre and confirmed a leprosy case. Three other patients of 2006 were also confirmed. Therefore the quality of diagnosis is good in this health facility.
- No patient was withdrawn from the district register and prevalence remained at 45 cases, giving a prevalence rate of 1.41 cases per 10,000 in Mocuba district.
- LEM data were collected in Intome and at district level. Prevalence and detection trends are decreasing from 2004 to 2006
- Positive points: Motivated health staff and volunteers in visited MDP, good quality of leprosy diagnosis and efficient management of blister packs
- Weaknesses: IEC to leprosy patients on treatment duration
- Recommendations: to improve IEC for patients

Summary on Zambezia Province

- Twenty six (26) patients were re-examined in 5 of the six visited districts and 15 were confirmed leprosy cases. The rate of misdiagnosis is 42.3% (11/26) and high in 3 districts (Gile, Ile and Maganja da Costa).

- After removing misdiagnosed cases, number of registered cases remained high in all visited districts, except Namarroi where the prevalence rate is lower than 1 case per 10,000.
- Collected LEM data show decreasing trends of prevalence and detection. Carrying out Updating register and Social mobilisation Campaigns increased detection rate in 2006 in some of visited districts. Blister pack stocks at Provincial are sufficient because the first supply of 2007 has just arrived (2267 MBA, 289 MBC, 496 PBA and 839 PBC)
- Positive points: High treatment completion rates, motivated health staff and volunteers in visited MDP
- Weaknesses: Poor diagnosis quality in 3 districts, mismanagement of blister packs
- Recommendations:
 - o To confirm the leprosy diagnosis of new cases by district leprosy supervisors
 - o To assess diagnosis quality during supervision and update leprosy registers in district with a misdiagnosis rate more than 10%
 - o To organise on-the-job training in clinical diagnosis for new supervisors and coordinators at provincial and district levels
 - o To improve the management of blister packs by checking availability of available stocks in health facilities and districts every month and adjusting stocks to number of new patients in treatment

SOFALA Province

- Three (3) patients were re-examined in the hospital of Nhamatanda (same district) and all were confirmed leprosy cases. All patients reviewed have neuritis and are treated with Prednipac
- All 26 registered patients are MBA and most of them have reactions and are being treated with steroids. Prevalence rate is 1.21 per 10,000.
- Collected LEM data show decreasing trends of prevalence and detection from 2004 to 2005 and increase in 2006 due to Social Mobilisation Campaign. Only MB blister packs (Adult and Child) are available at district level but all registered patients have got their stocks for complete treatment. Due to the increasing detection, stocks at provincial level are not sufficient (88 MBA, 5 MBC, 36 PBA and 10 PBC)
- Positive points: High treatment completion rates, motivated health staff and current availability of blister packs, despite the shortage observed in 2006
- Weaknesses: Late diagnosis of cases that are all MBA with grade 2 disability rate of 20% in 2007 new cases, poor health service coverage with MDT (30%)
- Recommendations:
 - o To increase MDT health service coverage up to 100%
 - o To improve the management of blister packs by checking availability of available stocks in health facilities and districts every month and adjusting stocks to number of new patients in treatment
 - o To organise PoD activities
 - o To search new cases in patients' contacts and families (active search)

5. MEETING ON SPECIAL LEM DATA ANALYSE AND DEVELOPMENT OF ADAPTED PROVINCIAL PLANS FOR LEPROSY ELIMINATION

From 21 to 23 March of LEM team members with the Provincial Coordinators of HIV-AIDS, Malaria, Leprosy and Tuberculosis programmes from the 5 visited provinces gathered in Nampula City to present and discuss LEM findings and recommendations and to revise 2007 provincial leprosy plans of action accordingly. Five WHO Staff from AFRO, IST Libreville,

Madagascar and the Mozambique Country Office as well as 3 ILEP-NGO member representatives (NLR, AIFO, TLMI) and Mrs Vera HAAG ARBENZ from Novartis Foundation for Sustainable Development participated to the meeting. (See agenda of the meeting in appendix 12).

After the opening session, Dr Alcino Ndeve presented the leprosy situation and trends of prevalence and detection since the launch of the leprosy programme in 1996; (Refer to appendix 13). By interpreting this trends, we may say that Mozambique can achieve the leprosy elimination goal by the end of 2007 at National Level and in High endemic provinces at the end of 2008.

LEM team leaders (Dr Samuel for Niassa and Cabo Delgado, Dr Bide for Nampula and Dr Tiendrebeogo for Zambezia and Sofala) presented the LEM findings and recommendations. Each presentation was followed by discussions and this made the presentations lasted throughout the first day of the meeting.

On the second day, Dr Bide presented WHO some guidelines for leprosy elimination, stating that the elimination goal is reached by diagnosis new cases as early as possible and treating them properly with WHO recommended MDT. This strategy was efficient in other leprosy endemic countries and must also work in Mozambique

Participants from the 5 provinces then went for group works to draft leprosy elimination activities based on LEM findings and recommendations and to revise or adapt their 2007 provincial plans of action accordingly. Presentations of the revised 2007 plans of actions started in the afternoon of the meeting second day. Main retained activities can be summarised as follows:

- Sofala:
 - o To train of new provincial and district leprosy supervisors with practical sessions on clinical examination of leprosy patients
 - o To combine assessment of leprosy diagnostic quality and updating of leprosy registers in all districts of Sofala with the support of National programme manager, WHO NPO-LEP and other Provincial supervisor from high endemic provinces
 - o To introduce MDT and reach 100% MDT coverage of all 130 health facilities (health centres and posts by:
 - Training all 130 health workers
 - Provision of leprosy programme resources, mainly blister packs, surveillance forms and logistic means
 - o To maintain Leprosy Social Mobilisation Activities at the current level, using available IEC materials and channels
 - o To carry out supervision of all newly trained health staff, at least once before the end of the year and twice for health staff with weaknesses or difficulties in leprosy diagnosis, case management or case holding
 - o To collect leprosy data and regularly, using the current leprosy surveillance forms (clinical forms, district registers, quarterly report, medicine management stock bin cards), analyse data and plan 2008 activities which will include
 - Search of new cases among leprosy patients' contacts and families
 - Recruiting and training volunteers for villages in remote and difficult to access areas and zones with poor health service coverage
 - Intensification of Leprosy Social Mobilisation if needed
- Zambezia:
 - o To assess the quality of leprosy diagnosis in districts which were not visited by the LEM team and update leprosy district register accordingly

- To confirm all new cases of leprosy by clinically examination undertaken by District leprosy supervisors and after confirmation of diagnosis, supply the health facility or distribution point with the required number of blister packs for complete treatment of each case
 - To improve blister pack management by strengthening communication via various channels (radio, cellular phones, landline telephones), between health centres and districts and between districts and provincial level, on stocks of medicines at district level and number of newly diagnosed cases of leprosy
 - To strengthen health staff supervision at peripheral level combined with on-the-job training supported by provincial and National levels
- Nampula:
 - To maintain currently planned activities, mainly used of volunteers and semester meeting with volunteers and health staff for coordination and motivation
 - To improve management of blister packs and try to re-distribute blister packs expiring in 2008 to districts or province where they will be used before the expiry dates
- Niassa:
 - To improve quality of case management, mainly the use of steroids for treating reactions
 - To increase the MDT coverage by recruiting and training more volunteers so that there will be at least one volunteer every 10 km distance
- Cabo Delgado:
 - To improve blister pack management through reinforced communication on stocks and number of new cases and to supply health facilities and distribution points accordingly with full treatment blister packs for each new case of leprosy
 - To achieve the computerised surveillance forms by entering all data from October 2005, (a clerk to be recruited for data entering)
 - To evaluate the leprosy EPI INFO application pilot project in the province before expanding it to the other leprosy high endemic provinces

On the third day, Provincial worked on their revised plans of actions and included needed resources and/or estimated costs. Revised plans of actions with budget were presented and comments were provided for their finalisation. WHO, Novartis Foundation for Sustainable Development and ILEP NGO participants to the meeting précised their role in the leprosy elimination strategy and expressed their commitment and willingness to support Mozambique at National and provincial to achieve the goal. The meeting was closed at 11H30 in the morning.

Appendix 1

List of districts, health centres and MDP to be visited

Provinces	Districts	Health centres	MDT distribution posts	Visiting teams
Sofala (1 cluster)	Nhamatanda	Nhamatanda hospital	0	4
Niassa (1 cluster)	Mandimba	Mandimba	0	1
		Mitande	0	
Zambezia (6 clusters)	Gile		Nacarara, Nanhope	4
	Alto Molocue	Molocue Sede, Mutala	0	
	Ile		Breu, Interro	
	Namarroi	Mutepua, Lipali	0	
	Manganja da Costa		Macuva Nahalalahai, Muitucula Logosa, Ginama	
	Mocuba	Intome	0	
Cabo Delgado (5 clusters)	Balama	Balama	0	1
	Macomia	Macomia	0	
	Montepuez	Montepuez, Namanhumbiri	0	
	Namuno	Namuno, Ncumpe	0	
	Pemba Cidade	Pemba Cidade	0	
Nampula 1 (6clusters)	Erati	Alua	Nampwé	2
	Malema	Malema	Tui	
	Mossuril	Matibane, Nacuxa	Namitatari	
	Nacalha Velha	Nacalha Velha, Barragem		
	Mogincual	CS Liupo	Terene	
	Moma	Moma, Savara	Muelehipa	
Nampula 2 (6 clusters-5 districts)	Mogovolas 1* & 2*	Namitil, Nicotamala	Thitini, Simbuite, Muhema	3
	Mecuburi	Mecuburi		
	Murrupula	Murrupula, Tiponha	Nainhoto	
	Nampula Cidade	CS 1° Maio		
	Nampula Distrito	Rapale, Caramacha,	Nicoloma	
5 provinces (25 clusters)	24 districts * 2 clusters in 1 district	32 visited HC	16 visited MDT Distribution Points	4 teams

Appendix 2: Assessment of leprosy diagnosis quality in 2007 new leprosy cases

Provinces	Districts	2007 new cases clinically reviewed	Confirmed leprosy cases	Errors of diagnosis	Percentages of misdiagnosis
Zambezia	Gile	3	1	2	66.7%
	Alto Molocue	0	0	0	-
	Ile	5	2	3	60.0%
	Namarroi	3	3	0	0.0%
	Maganja da Costa	14	8	6	42.9%
	Mocuba	1	1	0	0.0%
	Total ZBZ	26	15	11	42.3%
Sofala	Nhamatanda	3	3	0	0.0%
Niassa	Mandimba	7	7	0	0.0%
Cabo Delgado	Montepuez	32	32	0	0.0%
	Namuno	28	28	0	0.0%
	Balama	23	22	1	4.3%
	Macomia	17	17	0	0.0%
	C. Pemba	16	16	0	0.0%
	Total CDG	116	115	1	0.9%
Nampula	Erati	12	12	0	0.0%
	Malema	2	1	1	50.0%
	Mossuril	2	2	0	0.0%
	Nacalha Velha	12	12	0	0.0%
	Mogincual	7	7	0	0.0%
	Moma	8	7	1	12.5%
	Mogovolas	8	7	1	12.5%
	Mecuburi	6	4	2	33.3%
	Murupula	10	8	2	20.0%
	Nampula Cidade	2	2	0	0.0%
	Nampula Distrito	14	14	0	0.0%
	Total NPL	87	80	7	8.0%
TOTAL 5 Provinces		239	220	19	7.9%

Appendix 3 : Updating District Leprosy Registers

Provinces	Districts	Registered cases on team arrival in the district	Cured cases	Errors of diagnosis	Other withdrawn cases	Remaining prevalence after ULR				
						Total	MB A	MB C	PB A	PB C
Zambezia	Gile	17	0	2	0	15	8	0	3	4
	Alto Molocue	0	0	0	0	0	0	0	0	0
	Ile	26	0	3	0	23	11	2	7	3
	Namarroi	3	0	0	0	3	2	0	1	0
	Mag da Costa	17	0	6	0	11	5	0	4	2
	Mocuba	5	0	0	0	5	4	0	1	0
	Total ZBZ	68	0	11	0	57	30	2	16	9
Sofala	Nhamatanda	26	0	0	0	26	26	0	0	0
Niassa	Mandimba	7	0	0	0	7	5	1	1	0
Cabo Delgado	Montepuez	32	0	0	0	32	24	1	6	1
	Namuno	28	0	0	0	28	24	2	2	0
	Balama	23	0	1	0	22	21	0	1	0
	Macomia	17	0	0	0	17	9	1	6	1
	C. Pemba	16	0	0	0	16	14	0	2	0
	Total CDG	100	0	1	0	99	79	4	14	2
Nampula	Erati	12	0	0	0	12				
	Malema	2	0	1	1	0				
	Mossuril	2	0	0	0	2				
	Nacalha Velha	12	0	0	0	12				
	Mogincual	7	0	0	0	7				
	Moma	8		1	1	6				
	Mogovolas	8	1	1	2	4				
	Mecuburi	6	3	2	0	1				
	Murupula	10	0	2	2	6				
	Nampula Cidade	2	0	0	0	2				
	Nampula Distrito	14	0	0	0	14				
	Total NPL	87	4	7	6	70				
TOTAL 5 Provinces		288	4	19	6	259				
Percentages		100%		10%		90%				

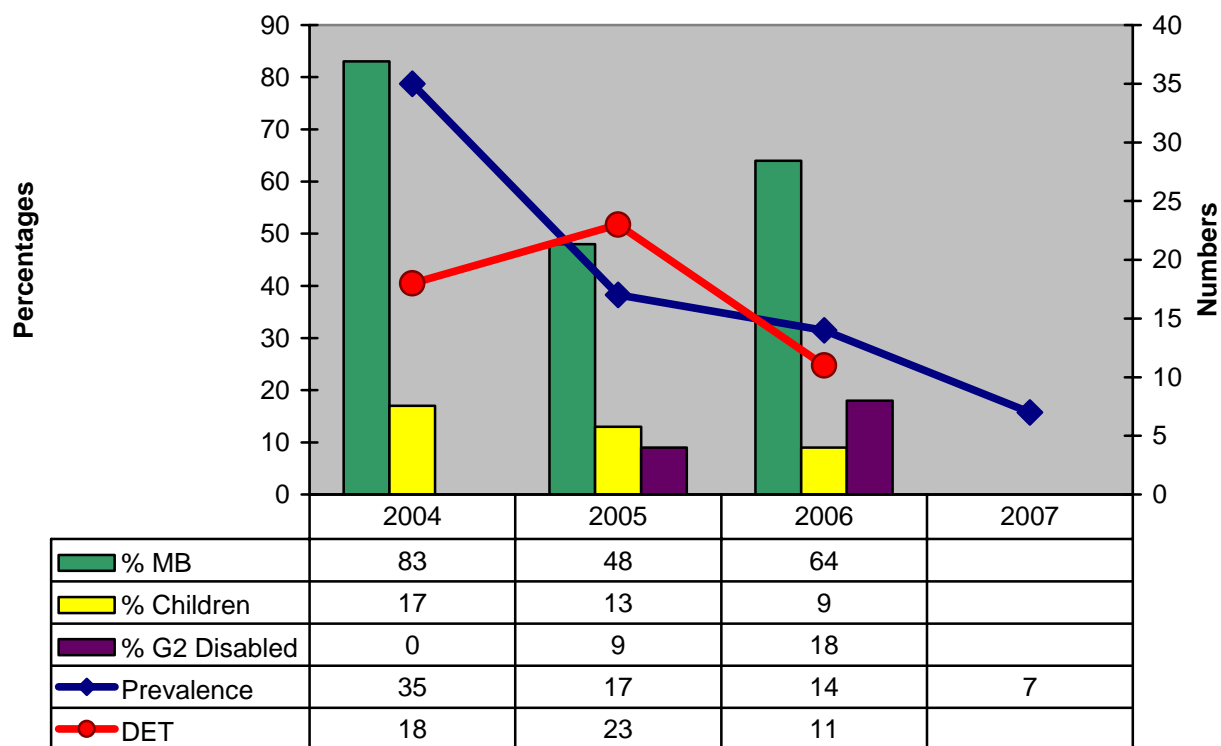
Appendix 4 : LEM indicators in Patients

	Zambezia	Sofala	Niassa	Cabo Del	Nampula	5 Prov
Total 2007 new cases reviewed						
Misdiagnosis	42.3%	37.9%	0.0%	0.9%	8.0%	7.9%
Confirmed New cases	57.7%	62.1%	100%	91.1%	92.0%	92.1%
Female	40%	33.3%	57.0%	63.2%	-	
MB	53.3%	100%	100.0%	79.0%	59.4%	
Children	13.3%	0%	0.0%	0.0%	14.5%	
Gr 2 disabled	13.3%	33.3%	0.0%	0.0%	4.3%	
Reactions	33.3%	100%	14.3%	5.2%	-	
Treated in MDT Distribution Points	80%	0%				
Steroid treatments	13.3%	100%	14.3%	5.2%	-	
Average delay of diagnosis	29 Months	40 Months				
Average distance for treatment	7.2 km	2.6 km	9 km	3 km		
Average cost (consultation, travel, blister packs)	0	0	0	10 MTC (Travel)		

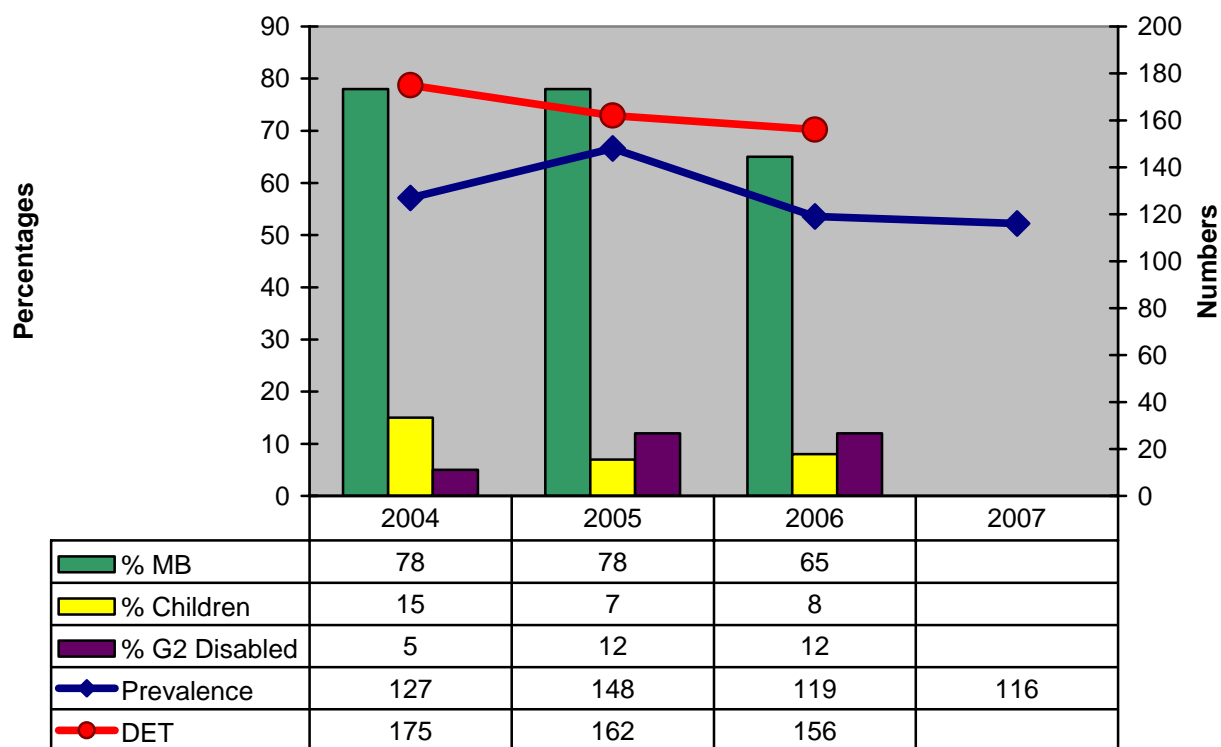
Appendix 5 : LEM indicators in Health facilities and MDT distribution points

	Zambezia	Sofala	Niassa	Cabo Del	Nampula	5 Prov
2004 MB cure rate	99.5%	100%	93.3%	100%	100%	98.6%
2005 PB cure rate	94.9%	100%	100%	-	100%	98.5%
Availability of blister packs						
MBA	Poor	Good	Good	Good	Good	Good
MBC	Good	Good	Good	Good	Excess	Good
PBA	Poor	Good	Poor	Good	Good	Good
PBC	Poor	Good	Good	Good	Exces	Good

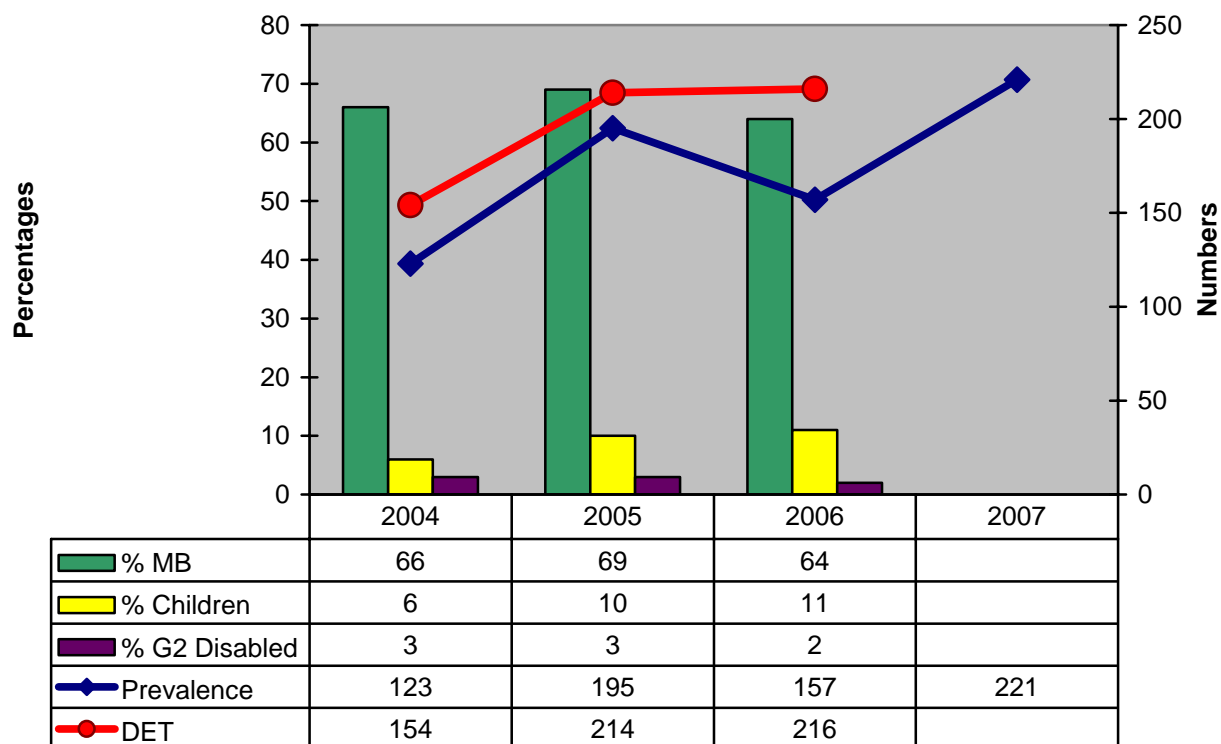
Annexe 6 : Leprosy prevalence and detection trends in Niassa province



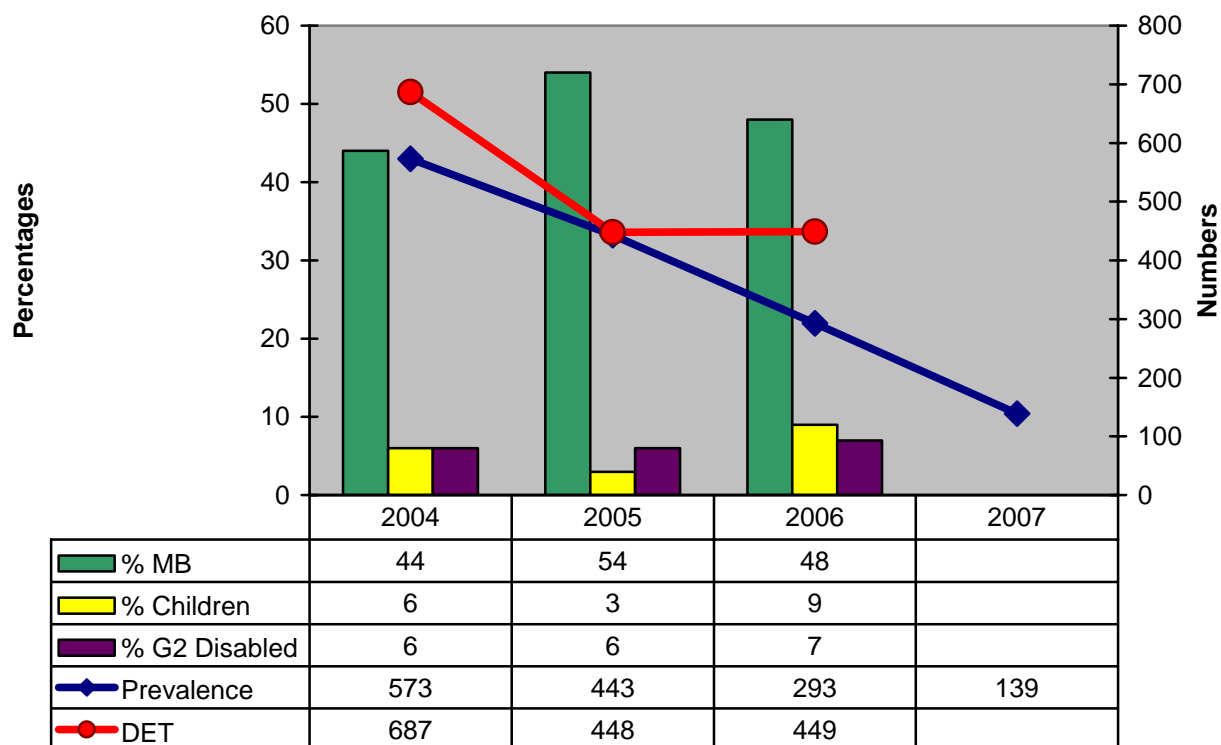
Annexe 7 : Leprosy prevalence and detection trends in Cabo Delgado province



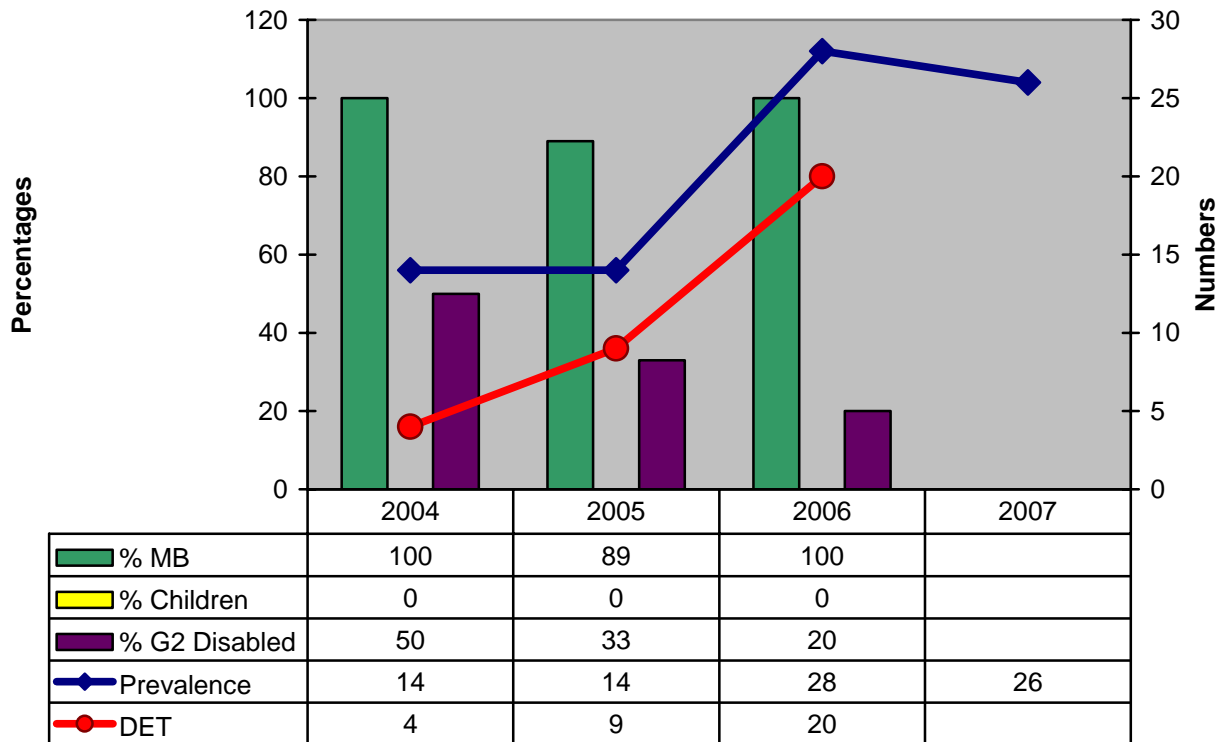
Appendix 8: Leprosy prevalence and detection trends in Nampula province



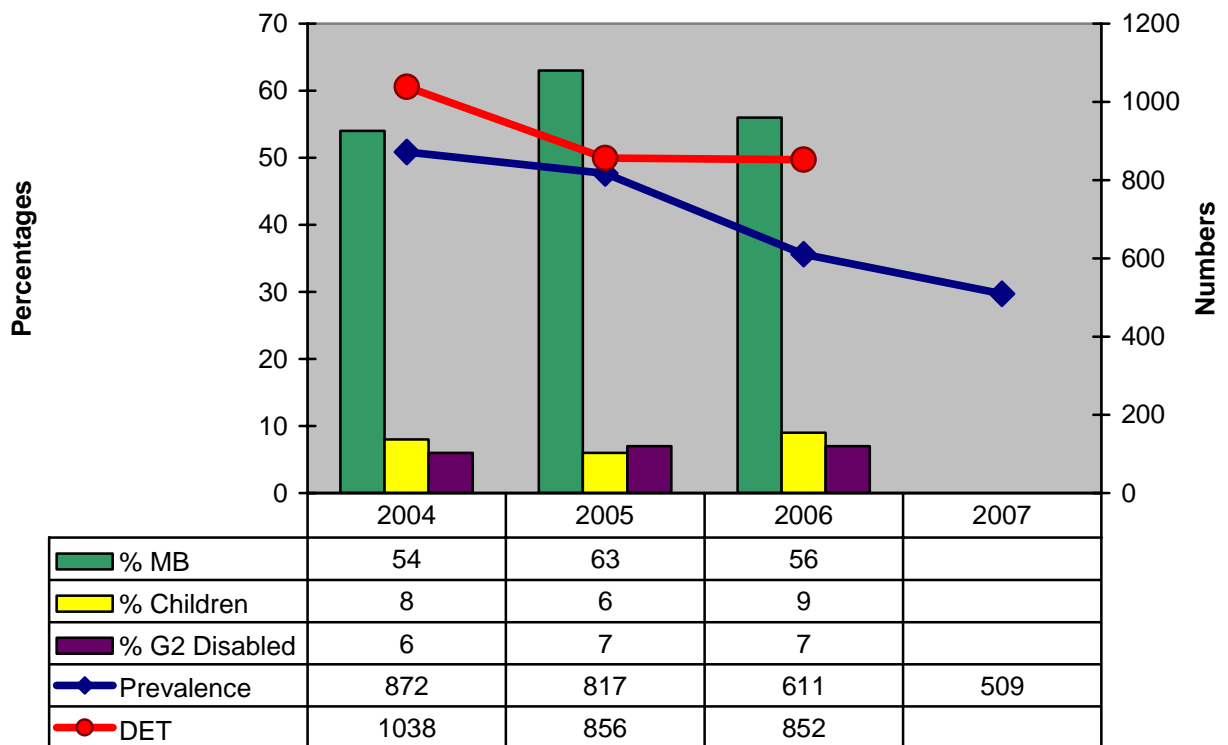
Appendix 9: Leprosy prevalence and detection trends in Zambezia province



Appendix 10: Leprosy prevalence and detection trends in Sofala province



Appendix 11: Leprosy prevalence and detection trends in the 5 visited provinces



Annexe 12:

**Special LEM combined with the development of provincial plans
in Mozambique**

**Meeting on Special LEM data analyse and development of adapted provincial plans
for leprosy elimination at sub national levels**

Nampula 21 to 23 March 2007

TENTATIVE AGENDA

Days and Hours	Activities	Responsible
Wednesday, 21 March 2007		
09h00–09h30	Opening session with Provincial and district Authorities in Nampula Objectives of the meeting Leprosy Situation in Mozambique at the end of 2006	Governor of Nampula, Provincial Director of Health, Nampula, LEP National Manager
09h30–10h00	Coffee break	
10h00-11h30	Presentation and discussions of special LEM data collected in the 5 visited teams : Cabo Delgado, Niassa, Nampula, Zambezia and Sofala	LEM team leaders
11h30-12h30	Presentation and discussions of special LEM data collected in the 5 visited teams : Cabo Delgado, Niassa, Nampula, Zambezia and Sofala	LEM team leaders
12h30-14h30	Lunch break	
14H30-16H00	Presentation and discussions of special LEM data collected in the 5 visited teams : Cabo Delgado, Niassa, Nampula, Zambezia and Sofala	LEM team leaders
16H00-17H00	Synthesis on Special LEM results in the 5 provinces with stress on weaknesses and recommended activities for improvement	Dr Tiendrebeogo

Quinta-feira, 22 Marco 2007		
Dias e Horas	Actividades	Responsavel
08h30-09h00	Orientacoes para a implementacao desenvolvimento de actividades especiais para a aeliminacao da Lepra a nivel provincial em Mocambique ate finais de 2008 baseadas nas recomendacoes do LEM.	Dr Bide Landry
09h00-09h15	Orientacoes para a elaboracao de planos provinciais adaptados para atingir a eliminacao da Lepra a nivel provincial em Mocambique	Dr Alcino Ndeve
09h15-10h30	Trabalhos em grupo sobre os planos provinciais adaptados para a eliminacao da Lepra nas 5 provincias visitadas	Todos os participantes agrupados por provincias e orientados pelos membros da OMS.
10h30-11h00	Intervalo para o cafe	
11h00-12h30	Trabalhos em grupo (continuacao)	Todos os participantes agrupados por provincias e orientados pelos membros da OMS
12h30-14h30	Intervalo para o almoco	
14h30-16h00	<p>Apresentacoes e discussoes sobre os primeiros rascunhos dos Planos Provinciais Adaptados , para atingir a eliminacao a nivel provincial</p> <ul style="list-style-type: none"> - Situacao da Lepra por distrito em cada provincia,distritos mais endemicoa,plano de accao para 2007 - Factores favoraveis e pontos positivos do LEM - Pontos fracos do LEM e recomendacoes - Actividades Core para a eliminacao acelerada da Lepra 	Apresentacao por cada equipe provincial
16h00-17h00	Trabalhos em grupo para rever os planps provinciais adaptados,recursos necessarios e orcamento.	Todos os participantes agrupados por provincias e orientados pelos membros da OMS
Seta-feira, 23 Marco de 2007		
08h30-10h00	<p>Apresentacao dos planos 2007 adaptados para a eliminacao da Lepra, acompanahados dos respectivos orcamentos</p> <ul style="list-style-type: none"> - APP in 5 visited provinces - Annual plans in other provinces - Roles and contributions of ILEP Member NGOs - Roles and contributions of the WHO, SHMF and NFSD 	<p>Gestor nacional do programa,</p> <p>ILEP membros ONG representantes, NFSD OMS LEP equipa</p>

10h00-10h30	Cerimonia de encerramento com as autoridades provinciais e distritais de Nampula	Governador de Nampula, Director Provincial de saude de Nampula, LEP Coordenador Nacional
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Anexo 13: Tendência dos indicadores da eliminacao da Lepra em Mocambique desde 1996 ate 2006

