Report

Lepra Control Project—Malawi. Annual Report, 1966.

This is the first full year of work on the Project. During 1965 Dr. G. Currie was seconded by the Government of Malawi to institute the work and by the end of the year had been joined by Mr. Drake, Survey Officer, and Mr. Eldon as Administrator. Accommodation had been acquired for the Senior Staff with the purchase of a block of flats in Blantyre and a great deal of preliminary planning of the Project Headquarters had taken place.

Excellent co-operation from all concerned was forthcoming and the Project received a great deal of publicity. Some equipment, particularly the first 2 land rovers, had arrived and work amongst the patients could begin.

All existing clinics in the region were visited and the leprosy work taken over with the co-operation of the Medical Assistants in charge. Attendance at clinics was very poor and mostly irregular; of 5,000 registered less than a half ever showed up, and about a quarter with any regularity.

It was impossible to do any case finding as the staff required did not exist.

At the beginning of 1966, Dr. Molesworth, the permanent Director, arrived and for the 3 months had the invaluable advice and assistance of Dr. Currie before he left for the United Kingdom in April. Also in January the first 3 Medical Assistants reported for training. Later in the year the second batch reported, now making a total of 6. In September, Miss Dean, S.R.N., and Miss Arnold, A.M.I.L.T., arrived from the United Kingdom; Miss Dean to be the Sister i/c of the new wards and Miss Arnold of the Laboratory work. Extra drivers and clinic attendants were also recruited.

PROJECT HEADQUARTERS

After much further discussion the contract was approved and work began on the site in the grounds of the Queen Elizabeth Hospital on 8th August. The buildings consist of 2 blocks: administration, laboratory, operating theatre and out-patients in one, and ward accommodation for 40 acute patients in the other. The blocks are connected to each other and to the Queen Elizabeth Hospital by covered ways.

On October 20th the foundation stone was unveiled by Dr. H. Kamuzu Banda, First President of Malawi, a great honour for LEPRA and the occasion was very well attended. Dr. Banda in his address called upon all walks of life to co-operate with the Project.

Work on the building has gone well with only minor hold-ups and the roof was on just before the rains began; work on the interior is now going ahead and we should be in occupation early in 1967.

TERRAIN

The centre of our region is occupied by the Palombe Plain with the rivers in the northern part running west to east into Lake Chilwa which forms the north-eastern boundary. In the southern part of the plain the rivers work southwards to join the Ruo River, but wander about considerably and very inconveniently before finally reaching it. The south-east corner is occupied by the Mlanje Massif, nearly 10,000ft., where the Ruo River rises and flows west forming the southern boundary until it reaches the edge of the Cholo ridge and turns away south. From here north to Blantyre is hilly country at about 5,000ft., large tea estates, very deep valleys with villages scattered on opposing sides and very poor roads. From Blantyre northwards the ridge continues to the Zomba Massif, 40 miles away, and the Project area includes the scarp and the southern and eastern edges of Zomba as far as Domasi about halfway up the eastern side. From Domasi east and south is plain continuous with the Palombe plain bounded on the east by Lake Chilwa, difficult country again because of the intersecting rivers heading for Lake Chilwa. Main roads are good but once on side roads the going becomes progressively worse and may become impassable after heavy rain; mere trickles in the morning being impassable torrents by afternoon and bridges there last week are no longer present. Some of the tracks are only passable by bicycle or on foot. The heavy rains are from December to March.

In this area live over a million people according to the 1966 census, mostly engaged in agriculture of some form or fishing around Lake Chilwa; villages as such hardly exist, houses are widely scattered and names on maps are only approximate and the actual village is often some miles away.

From the ridges to the plain is a fall of some 2,000ft.

The distribution of patients through the area shows a heavy concentration in the Mlanje region and this continues northward around the shore of Lake Chilwa to reach Domasi and the end of the Project area. Working westwards across the Palombe Plain is a very sparsely inhabited area of swamp land, but west of this again the concentration rises and continues up the eastern slopes of the ridges which form our western border. In the south-west, in the Cholo area where we have not yet penetrated, there seems anyway no falling off in numbers; it is also an area where onchocerciasis is endemic. North and west of Blantyre, after a drop to the Shire River Plain of some 1,500ft., there is an area at the foot of the scarp with certainly as much leprosy but seemingly a complete indifference to it. This is the area of our Friday run from Blantyre.

It is unfortunate that the Chilwa shore area is the most difficult to cover adequately. The frequent deep and, in the wet, impassable drifts running west to east make direct progress in the north/south direction a matter of constant back tracking, while at the southern end of the lake north of Mlanje we just have not yet penetrated.

Around Blantyre and its suburbs is an area from which few patients come forward or come once and are lost. Urban populations are always difficult and although patients exist here as elsewhere, we have

not yet the staff to mount such a difficult case finding operation. For instance, apart from those attending the Queen Elizabeth Hospital, out of 130 registered patients only 30 have attended and even fewer with adequate regularity. Many patients come as work becomes available and drift away when it ceases. Somewhere in Blantyre/Limbe one could expect at least 1,500 patients.

MOBILE TREATMENT UNITS

During the year 3 Mobile Treatment Units were started, based on Blantyre, Mlanje and Zomba. The villages in each of the areas from which the known patients came were plotted on a map with indicators for the numbers involved. The villages were then located and visited and the Headmen concerned had the objects of LEPRA explained to them and their help enlisted. Patients from the existing clinics were then informed when and where treatment would be available at the nearest point to their village where the circuit passed. Finally the circuit was put into operation and with minor 'teething troubles' has worked well, so that by the end of December, 1966, 2,806 patients were receiving their treatment with a regular attendance figure of 60%, but sometimes dropping well below this, depending on the local conditions, weather and brewing mainly.

Each team consists of a Driver, a Clinic Attendant with a bicycle and a Medical Assistant who is in charge. Where patients cannot be reached by Land Rover the Clinic Attendant is put down and cycles across country giving treatment, while the Land Rover goes round visiting its own patients and picks him up at the end of his run.

It will be seen from the description of the terrain that constant modifications are necessary as roads become impassable or are again open, but on the whole the scheme is working satisfactorily and certainly a far greater number of patients are reached with greater regularity than was ever achieved hitherto and this will increase.

ABSENTEES

Absentees from the original clinics were attempted to be found and Tony Drake did a great deal of work trying to trace them. At first lists were prepared and sent by post to Health Assistants and Village Headmen concerned, for those named to be rounded up, but very few in fact were. Then personal preparatory visits and explanations were tried but with very little more success and so this method of case finding was abandoned, the work and time involved was far too great for the results obtained.

CONTACTS

Following the abandonment of attempts to trace absent patients, the emphasis was changed to the examination and recording, village by village, of the contacts of known leprosy patients working along treatment runs. All those contacts under 20 years of age were given BCG, by the end of the year 3,503 contacts had received BCG and a total of 4,931 examined, with the discovery of 123 new patients; a rate of 2.5%.

This method, though far more satisfactory, still has a loophole which is that quite obvious but unknown (to us) patients do not get seen as they may not be a contact of a known patient. This has been found quite often. It seems reasonable, therefore, that in a country with a leprosy prevalence of probably 2% everyone should be regarded as a contact and examinations, village by village, of the whole population will be the answer. Now staff is trained this can be undertaken, again working along the general run of a mobile unit in order to ensure immediate treatment of the patients discovered. This is very slow work with widely scattered houses instead of compact villages, and to obtain a nearly complete coverage often many visits are necessary.

Two schools were surveyed and, in conjunction with the American Peace Corps Unit, tested for reactivity to several mycobacterial antigens, Lepromin, PPD Sibert Tuberculin, a Scotochromogen, Kansasi and Avian. The results showed an incidence of leprosy of 1.5%. It was also apparent that by 15 years old nearly all the children were reacting to all the antigens used, but 2 children with tuberculoid leprosy were only positive to lepromin. It would appear that some antigen outside those used was sensitising the population.

Nearly all also showed one or more nerves to be thickened by standards met in other parts of the world.

STATIC CLINICS

There are dispensaries or hospitals where treatment was available before the start of our Mobile Units. By the end of the year all but 9 had been included as a treatment point in one of the runs. Those that remain are visited once a month but continue to give treatment until such time as we can truly absorb them. These are the 3 urban dispensaries other than the Queen Elizabeth Hospital in Blantyre, The Mission Hospital at Nguludi, 14 miles out, and a group of clinics around Cholo, a large area we have not yet penetrated, Namadzi which lies between Blantyre and Zomba and Kalinde to the south of Lake Chilwa and north of Mlanje.

MALAMULO LEPROSARIUM

This leprosarium is in the extreme south-eastern corner of our area and is run by the Seventh Day Adventists. There are about 300 inmates and some 500 out-patients under treatment. Their co-operation with the Project is excellent and during the year this has been our only means of admitting patients for hospital treatment.

Leprosaria at Utale and Likwenu are just outside our area, both are very helpful to us and, lacking doctors, are grateful for such visits as we can give them, though these are inevitably very infrequent.

The help and co-operation we have received in every phase of the Project from all we have come in contact with makes an enormous difference and we are very grateful for it.

In addition to the staff mentioned we had with us during his long vacation from university, Mr. Henry de Lotbiniere. He was stationed at Mlanje and with the Medical Assistant there did a first class job in finding villages and plotting possible Land Rover runs. His work was very valuable and enabled us to get the Mlanje runs under way well ahead of schedule.

TRAINING

Training this year has been limited to our own group of Medical Assistants and could really be better described as in-service training since time for set lectures became shorter and shorter as the case load increased. The Medical Assistants have been quick to learn and are proving their value. Every opportunity has been taken to lecture groups of nurses, health assistants, peace corps workers or to show patients at clinical meetings.

PUBLICITY

During the year the Project has received a great deal of publicity, Dr. Currie's O.B.E., Dr. Molesworth's arrival, Dr. Currie's departure, Mrs. Morton's visit and, of course, the splendid coverage the Foundation Stone unveiling received. There have been several articles and broadcasts on our aims, and progress and, of course, the LEPRA Land Rovers with their red lettering are probably almost our best advertisement plus the fact that the word is spreading that there is now regular and effective treatment. This brings new patients and also, alas, very old and hopeless ones for whom we can do little, a grim relic from the past.

Talks have been given at chiefs' courts, to assemblies of Headmen and to gatherings of anyone interested in areas where we are working. This interest has been very genuine and has resulted in practical help.

The Lions Club in Lilongwe presented a McArthur microscope and extra fittings for it were presented by Dr. McArthur himself. This is proving very valuable in field work and its value will increase as the work expands.

The siting of the LEPRA Centre in Blantyre brought to light that there was considerable apprehension that this would bring many patients of leprosy to town. An article and a broadcast to answer this have been published but I feel this will only die down when people become accustomed to the idea through familiarity.

REHABILITATION

The problem here was whether the Government of Malawi were to sponsor a comprehensive scheme or whether LEPRA should 'go it alone' on a reduced scale. Pending a decision on this point nothing could move in spite of a great deal of talk. In June the Governor General, Sir Glyn Jones, called a meeting of all possible interested parties to investigate ways and means. This was followed by a second meeting a month later and a committee was formed of which Dr. Molesworth was elected Chairman. The point on which everything depended was that, while voluntary organisations were fully prepared to do their utmost to provide the capital and equipment, a firm undertaking from the Government was necessary with regard to the running expenses. This was a long time in coming but was finally obtained at the very end of the year, thus giving the scheme the go-ahead.

FIGURES

During the year 1,512 new patients were found, bringing the total to date to 2,148.

Detailed charting was carried out on about 3,500 new and previously treated patients.

Contacts examined	4,931	
New patients discovered in this group	123	(2.5%)
Children and Adolescents (under 20) without signs of leprosy receiving BCG	3,503	
Total Patients under Treatment:		
By Mobile Treatment Units ..	2,806	
By Leprosarium in the Project Area I.P.	273	
O.P.	517	
By existing Clinics not yet included in our Mobile Treatment runs	488	
	4,084	

On the Land Rover Circuits the number of patients per mile travelled are as follows:—

Blantyre M.T.U. —	2 patients per mile
Zomba M.T.U. —	2 patients per mile
Mlanje M.T.U. ..	3 patients per mile

The pattern of leprosy in the area shows a lepromatous rate considerably higher than expected, especially if Borderline patients are included in the figure; almost 30% in the Zomba area and 20%-25% in Mlanje and Blantyre. On a percentage breakdown the figures are:—

L.M.	14.6%
L.F.	10.0%
N.L.M.	30.7%
N.L.F.	44.7%

There has been remarkably little erythema nodosum leprosum, our standard dosage for lepromatous adults being 100 mg dapsone daily. This refers to the Mobile Runs only. ENL is, of course, more frequent in leprosarium patients. Intolerance to DDS is also very rare.

Neuritis is a more frequent complication mostly responding rapidly to corticoid drugs. It is a matter of conjecture whether the relative frequency of neuritis is in any way associated with the finding of thickened nerves in the general population.

Unfortunately burns, blisters and their complications are only too common. Open fires and a complete disregard for heat producing some horrible accidents. It is very difficult to teach patients that the ability to pick up hot things is not an advantage.

General dermatological patients inevitably come our way, in fact the Mobile Units carry a compound ointment for fungal and scabies infections, which is very popular and also good propaganda. Apart from these 2 obviously common ailments we see a lot of psoriasis, lichen planus, allergies, porphyrias, lupus erythematous and various vitamin deficiencies; these latter are very common towards the end of the dry season and before the new crops are ready. They also produce some very difficult differential diagnoses.

SUMMARY

In the Project area some 4,000 patients are now under active treatment, of these 2,806 are covered by the Mobile Treatment Units.

3,500 patients, new and old, have been recorded in detail.

Case finding has been started.

4,931 contacts have been examined with a 2.5% leprosy incidence.

3,503 apparently uninfected contacts under 20 years of age have received BCG.

Headquarters buildings was begun August 8th and is nearing completion.

Malawian staff have been recruited and trained.

In 3 of the 4 quadrants of the area a reasonable degree of control has been established.