

LEPROSY CONTROL IN OWERRI PROVINCE OF NIGERIA*

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Leprosy is a key disease. Its prevalence depends, not only on infection with *Mycobacterium Leprae*, but also on social conditions, housing, sanitation, education, and even on religious beliefs. In its elimination, specific treatment is a subsidiary measure, the main emphasis being laid on safeguarding the healthy from the disease. This is to be achieved by the isolation of infectious cases, combined with improved hygiene and sanitation, the treatment of endemic diseases, the raising of the standard of living, and the creation of an enlightened outlook where leprosy is concerned. Among these measures, the first and the last are our immediate concern, but the realisation of any of them depends ultimately on the people themselves. It is through their own efforts that leprosy will be overcome, not by any arbitrary measures. Where there is little desire for improvement, leprosy remains. The function of the leprosy worker is, firstly, to offer the best treatment to patients, and so care for them that their confidence is won and isolation rendered acceptable, and secondly, to enlist the active co-operation of healthy people in preventive work and apply this to the fullest extent.

In Owerri Province the leprosy problem is seen in an acute form. A susceptible population, living, for the most part, at poverty level in densely crowded villages, provides an admirable soil for the growth of the disease. The opening-up of the

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country and the decline of old institutions is exaggerating the problem at the present time. Out of a population of just over two millions, it is estimated that not far short of 75,000 people are suffering from leprosy to-day, and the Province is thus one of the most heavily infected areas in the world.

Leprosy control has been operating for six years. Begun experimentally in a few areas where the people appreciated its importance, it has gradually spread, and in spite of the fact that two of the six divisions in the Province are quite untouched, a total of 18,554 patients have so far come within its scope.

The ideal method of leprosy control is undoubtedly the isolation of patients in settlements where modern treatment can be combined with happy conditions of life. The immense numbers of patients involved in Owerri present such problems of finance, land, and staffing as to put this method of control totally outside the realm of practical politics, for in order to produce a progressive reduction in the incidence of leprosy, an expenditure of at least £1,000,000 per annum would be needed. It is enough to note that this figure exceeds the total income from taxation in the Province, and that leprosy is but one of several social and medical problems urgently needing attention.

With the abandonment of the settlement method of leprosy control, an alternative scheme has been applied. It calls for the following :

An efficient base of operations ; the localisation of the leprosy problem in each clan area, by planning leprosy control on a CLAN BASIS ; the isolation of infectious cases within the territory of the clan, wherever possible in model villages ; free treatment for leprosy being made available to all patients in the clan, at sites given by the clan ; preventive work and propaganda undertaken by Leprosy Inspectors operating in the area of the clan ; leprosy surveys, repeated every two or three years, to discover and deal with hidden and new cases, to examine contacts, and to maintain leprosy control when it is established ; cases not suitable for local treatment to be dealt with directly at the base ; the degree of control achieved to be judged by the proportion of infectious cases who are isolated. This programme demands the close co-operation of the people at every stage. At first, only one or two clans were prepared to accept it in its entirety. Work actually started where the people had themselves made some effort to isolate their lepers locally, and gradually increased as clans requested it until staff considerations prevented further expansion.

The Uzuakoli Settlement is both the base from which leprosy control work operates and also a centre for the isolation and treatment of patients. The following aspects of leprosy control are centralised at the Settlement :

Laboratory :

The individual case sheets of all patients, clinic and survey records are field and kept up to date. All patients admitted to the Settlement undergo a full laboratory overhaul, and Ide,

Kahn, and Lepromin tests are in use. The primary function of the laboratory is the bacteriological examination of patients, and 5,423 such tests have been carried out during 1944. Many persons have come for diagnosis, either privately or referred by Medical Officers.

Treatment :

At both Settlement and clinics, leprosy treatment follows a set routine both in system and technique, which though standardised to facilitate mass treatment, yet permits individual variation in dosage. Emphasis is laid on the intradermal injection of creosoted hydnocarpus oil, on psychotherapy, and on physiotherapy. Physical training is part and parcel of routine treatment. Massage, with the inunction of hydnocarpus oil, has been introduced on a large scale and is very popular. The disappearance of macules and all other signs of active leprosy is followed by observation for one year under bacteriological control, after which the patient receives a certificate dated and valid for three months, when re-examination determines its renewal. Large numbers of discharged cases return for re-examination. Since 1939, discharges from the Settlement itself total 337.

Training :

The maintenance of a large number of clinics calls for the continuous training of nurses, for these work at clinics while still patients, liable to be discharged. This is an extremely important function of the Central Settlement, for the success or failure of clinic rests ultimately on the ex-leper nurses who actually administer treatment. Tribute must be paid to the devotion of the nurses resident at clinics, who have accepted without complaint the isolation which such a life involves. They have befriended the patients, encouraged them to isolate themselves, and have won the gratitude and affection of thousands of patients, while all the time they simply receive a small maintenance allowance for their pains, being regarded as patients still under treatment. There are 130 such nurses at the present time, and the service they render their unfortunate brethren is above all praise. Nursing training follows a set course lasting 18 months.

Children's Departments :

The lot of children suffering from leprosy is often particularly hard, and provision is made for as many as possible at Uzuakoli. Of over 1,100 children in our care, 259 live at Uzuakoli, the majority of them maintained by B.E.L.R.A.'s adoption scheme. These children are fed at the communal feeding centre and attend school in the Settlement.

The uninfected children's creche, abandoned in 1940, when supplies of milk ceased, aimed to safeguard the children of patients by removing them from their mothers at birth and rearing them away from contact with leprosy. The department survived as a temporary measure in two forms : (a) as a *Mothers' Compound*, where relatively uninfected mothers were themselves segregated with their uninfected children, breast feeding being permitted. The mothers are not allowed to take their children into the infected part of the Settlement. This arrangement has worked quite well in practice. So far no child has exhibited any sign suspicious of leprosy. At the present time, 17 mothers are so segregated. (b) Weaned children have been sent to non-leper relatives, with the exception of a few orphans. These have been boarded out in the homes of respectable people in the neighbourhood and all have progressed well. This department is of the utmost importance in relation to leprosy control, for the children of patients are one of the most important agents in maintaining the disease.

Other Activities :

Free accommodation is provided at the Settlement for 100 aged or crippled patients who are unable to fend for themselves. They live in cottages with nurses in attendance, and a variety of interests makes their lives happy.

The Settlement, in addition to the above, is a large centre for isolation and treatment, where 1,179 patients are now in residence. The industrial development of the Settlement has had to give place to the development of leprosy control work outside the Settlement, but many industries are carried on, and the social life of the patients is highly organised. The Methodist Mission is responsible for religious and social work, and the Church occupies a most prominent place in the life of the Settlement. The day school has infants and primary departments, and has been supervised by ladies who are certificated teachers. The communal feeding centre is serving nearly 600 meals per day. The Boy Scout Group has over 100 members and is enthusiastic.

The Clan the Basis :

In working for leprosy control in the Province, the first principle adopted is the localisation of the leprosy problem to each clan. The clan is the natural social unit. When adopting a programme which calls for a great deal of self-help, the clan may be ready to assist where its own families are concerned, but usually resents the intrusion of lepers from other clans. We, therefore, plan leprosy control on a clan basis, rigidly excluding outsiders, but demanding, within the clan, the full co-operation

of each family. This principle of localisation is of the greatest importance. The opening-up of the country is permitting lepers to travel as never before, and the influx of new patients into any area is bound to create new problems. Lepers tend to settle in the vicinity of clinics, and these may thus actually create the problem. With the incidence of leprosy already at a very high level the movements of lepers from place to place should be minimised, and this is best achieved by providing facilities for their care in each clan.

The Isolation of Infectious Cases :

The second principle adopted is the isolation of infectious cases. In the existing state of our knowledge this is the only satisfactory direct means of overcoming the disease, and takes precedence over treatment in this respect. Isolation cannot be forced, and leprosy control resolves itself to a large extent in the discovery of ways and means of persuading patients to isolate themselves voluntarily, and then applying these until all infectious cases are isolated. All other measures are secondary to this, and leprosy control is thus as much a social as a medical matter.

The importance of isolation in relation to treatment needs to be stressed. Leprosy treatment is obviously an essential part of the programme and will cure all symptoms in many cases. Unfortunately, the degree of infectivity is roughly proportional to the length of time treatment is required, so that the most dangerous cases are least affected by the treatment and may remain sources of infection for many years. The problem is, in fact, even more complicated than this. The mortality rate of persons suffering from the severe forms of leprosy when untreated is high, largely on account of the neglect and undernourishment which is their usual lot. The period during which these unfortunate people may be sources of infection to others is thus limited. The effect of treatment is to prolong life, and incidentally, the period of infectivity. Until more effective methods of treatment are discovered, isolation must be the primary means employed to stamp out the disease.

Solitary isolation is to be deplored. We have met instances in many districts where the family has tried to isolate a patient by prohibiting social intercourse with him. The large number of patients concerned render this method ineffective as long as the patients remain at home, but the chief criticism of this method of isolation is the attitude of mind it creates. The solitary leper is an outcast. The isolated patient needs a community life in the best possible conditions, and this is supplied by the model village

we are endeavouring to provide in each clan. Healthy people are expected to provide land and building materials for the village. An attempt is made to utilise a local style of house-building, and by adequate hygiene and sanitation, present an object lesson to healthy people in village planning. By confining the village to patients from the clan, no patient is far removed from his home and there is no excuse for relatives to neglect patients unable fully to fend for themselves. No stern rules are applied to confine patients to the village. It is generally agreed that over 90% of leprosy is caught from contact within the compound, and the removal of patients from compounds where they formerly lived should ultimately eliminate infection to this amount.

Nurses live with the patients in the village, ulcers are dressed daily, and life is more happy than at home. Social life is organised. At two villages there are flourishing Boy Scout Troops, and sports and handicrafts are encouraged everywhere.

Our experience has been that patients have been sincerely grateful for what has been done for them, and accept isolation without difficulty, unless there are personal problems involved, such as the dependence on them of healthy children. Such problems must be faced and aid given to patients as necessary.

The following is a list of centres for isolation now established, with numbers of patients living in each : In the Bende Division, in addition to the 1,179 cases in the Uzuakoli Settlement, there are eleven centres with 831 patients, and four more centres are under construction ; in the Okipavi Division, six centres with 680 patients ; in the Orlu District, two centres with 123 patients ; in the Ahoada Division, six centres with 263 patients, and another centre waiting development ; in the Aba Division, two centres with 33 patients and another waiting development. In all, there are, in addition to Uzuakoli, 27 centres with 1,807 patients, and 6 more waiting development.

Leprosy Treatment Centres :

The provision of a leprosy treatment clinic is usually the first active step taken in leprosy control work in each clan. We make it clear from the start that leprosy control can only be maintained by the people themselves, and their continuous co-operation is necessary. Their willingness to co-operate is to be shown by the setting aside of a suitable place for the use of their lepers free of charge, and the free provision of buildings. The clinic is thus provided entirely by the people, and during the six years leprosy control has been operating there has been no exception to this rule. One or more trained nurses live at the clinic and carry out

routine treatment, while the clinic becomes a branch of the Central Settlement, is visited by a touring staff from the Settlement, and treatment at the clinic approximates, as far as possible, to that at the Settlement. An atmosphere of friendliness combined with effective treatment attracts patients. Those in special need are sent to Uzuakoli, but many mild cases who do not need isolation discover effective treatment at the clinic while they continue to lead their normal lives. A minimum of two years' treatment is necessary, yet already we have been able to discharge 379 patients as completely symptom free, not one of whom has needed Settlement treatment. The fact of the matter is that there are many mild cases of leprosy at large who would never bother to go to a Settlement, but who are prepared to attend a clinic. They need nothing more. With advanced cases, the clinic is a means to an end. Even in the best possible conditions in a Settlement the treatment of lepomatous cases rarely takes less than five years, and must take longer at a clinic where it is not possible to apply such measures as physiotherapy to any large extent. Much can be done, however, to make the lot of these people happier, and the numbers attending clinics indicate the value the patients place on these.

Even with ample propaganda, some patients will neither go to a Settlement nor attend a clinic without some impetus being given them. We have proved this repeatedly, for surveys have revealed numbers of such cases. Although they were afraid they had leprosy, they yet lacked the initiative to do anything about it, possibly dreading any public knowledge of their complaint.

Leprosy Surveys :

Sooner or later in each clan a leprosy survey becomes necessary. When numbers attending the clinic become stable it may be assumed, not that all patients are attending, but that all those having enough initiative of their own are attending. This is the sign that a survey is necessary in order to bring to light those who remain. Many surveys have now been carried out in the Province, considerably more than 60,000 of the population have been included, and an appropriate technique has been evolved. In selected areas, surveys are undertaken by the staff of the Central Settlement, but elsewhere surveys remain in the hands of Leprosy Inspectors, which means that surveys are continuously in progress in many parts of the Province at once. Such surveys lack the high degree of accuracy possible to an expert staff, but are the only possible answer to the problem of surveying a population of over two millions, especially as surveys must be repeated at intervals if the maintenance of leprosy

control is to be guaranteed. Repeated surveys are the only means of discovering new infections and keeping in touch with newcomers into the clan.

Twenty Leprosy Inspectors are at work in different parts of the Province. They are attached to clinics and undertake preventive work, visiting schools and meetings for propaganda purposes, advising relatives, tracing absentee patients to their homes, and undertaking localised surveys. This work is of the utmost importance. One feature of it is the examination of contacts, especially children, for signs of early infection.

Leprosy Control :

When all infectious cases are isolated, all patients receiving treatment, and machinery is in operation for the repeated survey of the population and for continuous preventive work, the programme is complete, and a progressive diminution in the incidence of leprosy may be expected. A state of affairs approximating to this is actually in existence in Bende Clan, Ozuitem Clan, Abam Clan, Abiriba Clan, Nkporo Villages, Oboro Clan, Abua Clan. In several other clans an advanced degree of leprosy control exists.

Vigorous anti-leprosy work is in progress throughout Bende Division ; with its 829 square miles and estimated population of 183,360, 16 out of 17 clans are participating in it. The incidence of leprosy is high, and we have concentrated on this Division as there is a widespread eagerness for leprosy control work. Approximately one half of the total number of lepers in the Division are now in our care, and this number includes a considerable proportion of the advanced cases. The one clan unconcerned with leprosy work is the Igbo Clan, a large clan, in parts of which there are many people suffering from leprosy. There is little unity among the elders in the clan and this is holding up progress, not only where leprosy is concerned.

Throughout the Okigwi Division, with a population of 155,464, leprosy control is in its early stages. The area is well covered by clinics, which are being attended, in the Okigwi District, by more than 2.3 per cent of the population, in spite of the fact that no survey has been undertaken. Propaganda has not been pressed. Leprosy Inspectors are finding their time fully occupied in supervising clinics, and so far very little preventive work has been done among the population. The patients already attend clinics in such numbers that an excessive incidence of leprosy must be presumed. It is hoped, during 1945, to carry out a specialised survey in order to obtain precise figures. The

fact that six villages for isolation purposes already exist is evidence of the willingness of patients to co-operate.

In the Orlu District, with a population of 300,000 and 6,031 patients, leprosy control work is of recent origin. The district presents peculiar problems on account of the remarkable density of the population. Progress is most marked in the Oru Clan, where a village has been opened at Uli. Elsewhere it is extremely difficult to find sites for isolation purposes. With the exception of Oru Clan, lepers are everywhere in a depressed condition, and examples of gross neglect are more numerous in the Orlu District than elsewhere.

In the Ahoada Division, with 170,490 population and 2,057 patients, great progress is being made, three clinics and two villages having been opened during 1944. Although there is no land shortage, and diet appears to be more satisfactory than in the most northerly Divisions, the leprosy incidence is very high indeed. There is a commendable keenness for leprosy work and, if staff permitted, much progress would be possible. Some of our best clinics are situated in this Division.

In Aba Division, with 183,999 population and 919 patients, leprosy control is in its infancy. Prejudice is deep-seated. Lepers are treated badly, yet there are many objections to anything being done to help them. Clinics have operated since 1941, and at last there are signs that a more intelligent attitude is developing. In the Asa clan there is much co-operation, and a village is being built in the immediate future, an excellent site having been approved. The Ngwa clan presents the most difficult problems, but a site for a village has been given at Akumimo. The incidence of leprosy in the Division varies considerably. Along the banks of the Imo River it is high, in some places excessive, but elsewhere appears to be low.

One striking feature of leprosy in Aba and Ahoada Divisions is its amenability to treatment. The outlook for patients in these Divisions is much better than in the hills at the north of the Province. From Abua clinic alone, 140 patients have been discharged symptom free.

New Developments :

The application of new Government proposals to Owerri Province will doubtless make it possible to increase the size of the work being done. A daughter settlement, designed as a hospital and organising centre for the southern Divisions, is visualised. Meanwhile, every effort is being made to render existing work more effective. The first claim on our energies is the welfare of isolated patients, and a village welfare department

has already been started. Another department of vital importance is the Child Welfare Department. Both of these new departments will increase efficiency at the two most vital points in leprosy control.

The main lines of leprosy control work in the Province are already established, and what remains is to cater for unusual conditions demanding special measures. Townships are an important consideration here, and call for special measures.