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LEPROSY CONTROL IN NIGERIA

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BACKGROUND OF THE PROBLEM

Nigeria, a territory roughly 700 miles square and situated just north of the equator, has a population estimated to be approximately 25,000,000. This population is made up of many different tribes and ethnological groups which differ in religion, customs, tradition and social organization. Such differences are naturally reflected on the problems of leprosy control.

For the purposes of administration Nigeria, with the British mandated territory of the Cameroons, is divided into three "regions," the Northern, the Eastern and the Western; these are further subdivided into provinces. Using a broad differentiation one may say that the Northern Region, comprising twelve provinces, is populated by a people derived from the Arab invasion of pagan Africa and now organized in a system of some six large Emirates. These people are of Muslim faith, they have a fatalistic attitude towards disease, and there exists little fear of the contagion of leprosy. In the southern part of Nigeria, comprising the Eastern and Western Regions, the social organization of a more primitive people still survives; although there are tribal ties of blood and language the social unit is that of the clan, with its restricted loyalties and compact structure. These people, pagan within recent history, have now largely adopted Christianity. In general, the fear of leprosy is marked, and the segregation of leprosy patients receives the support of public opinion.

The vast majority of the population throughout Nigeria is illiterate. Western education advances rapidly, however, es-

pecially in the south where the people are avid for it and where they also are far more receptive to modern learning and outlook.

PREVALENCE OF LEPROSY

Reliable and exact information on the prevalence of leprosy in Nigeria is available for only a few areas, and shows variations from 5 to 80 per thousand. For other areas of the territory our knowledge is dependent on indirect evidence from various sources. The evidence available is, however, sufficient to satisfy us that there is no part of the country in which leprosy is not endemic and does not constitute a public health problem. The prevalence is, in fact, very high.

A careful survey of the Bornu province, on the northern boundary of Nigeria, has revealed an over-all figure of 20 per thousand, and there is adequate evidence to accept this figure as applicable generally to the more Northern part of the country. Southward the prevalence rises and, among the pagans driven southwards by the Arab invasion, who now occupy the central belt of the territory, it is huge; a "reconnaisance" of one such area in the southern Plateau Province has revealed a rate of 80 per thousand.

In the tropical and humid southern provinces leprosy still is very prevalent, especially in the Eastern Region. Here organized leprosy control and treatment has been going on for some years and has affected the incidence; at the present time both surveys and indirect evidence show that the prevalence varies between 30 and 60 per thousand.

In the extreme west of the southern provinces there is less leprosy than anywhere else in Nigeria; here the prevalence drops to between 5 and 10 per thousand. It is interesting to consider whether the reason for this is an extreme fear of leprosy, and may be a result of the severe sanctions of tribal custom which, within living memory, led to a leprosy patient being expelled from the community to die of starvation and neglect.

Although the prevalence of leprosy in Nigeria is high, the disease exists in a milder and more chronic form than is common elsewhere, for example in India and the Far East. Tuberculoid cases are in the vast majority, and commonly comprise 90 per cent of the total. Even in lepromatous cases, severe complications are comparatively uncommon. Tubercu-

loid lesions often persist for years, running a chronic course with little activity and little change of any kind.

HISTORY OF THE CONTROL SERVICE

Until recently this problem of leprosy was regarded as too great to be tackled efficiently with the resources of Nigeria. A great deal of antileprosy work has been going on for many years, but no widespread and coordinated effort could be embarked upon. In 1936, Dr. E. Muir, then medical secretary of the British Empire Leprosy Relief Association, visited Nigeria and made recommendations to the government, but it was not until ten years later than his advice could be implemented on any large scale. It is interesting to note now, fifteen years later, that after a short experiment along different lines the scheme which has emerged represents Muir's recommendations almost in their entirety.

Prior to the year 1945, specialized antileprosy work executed directly by the Medical Department of the Nigerian Government was small and incidental to general medical and public health work. Most of the antileprosy work was carried out by Christian missionary societies. These societies operated with the help of funds contributed by the local authorities and with the assistance of grants made by the government and by voluntary bodies.

It was in 1945 that the government's Leprosy Service was started, and an establishment of full-time personnel set up. It was decided at that time to confine the scope of the new service to certain provinces in Southern Nigeria for an experimental period of five years. It was intended that the extension of the service to other areas of the country should be made in the light of the results of that experiment.

By agreement with certain Native Authorities and missionary societies, three of the larger settlements became units of the Leprosy Service. These are (*a*) the Oji River Settlement, in Onitsha Province, started by the Church Missionary Society with the aid of the British Empire Leprosy Relief Association; (*b*) the Uzuakoli Settlement, in Owerri Province, started by the Methodist Mission with Belra and Native Authority aid; and (*c*) the Ossiomo Settlement, in Benin and Warri, started on behalf of the Benin Native Authority and the Roman Catholic Mission. Since then these institutions have been carried on in cooperation with the missionary so-

cieties concerned; the Medical Department is responsible for the medical work and the societies for the religious, educational and welfare work among the patients. In addition to these three settlements, one new government-maintained one has been established, the Rivers Leprosarium, in Rivers Province. Each of these four settlements has rural control work extending over the province in which it is situated.

FRAMEWORK OF THE LEPROSY CONTROL SERVICES

The experience gained from the first five years of the Nigeria Leprosy Service has led now to an agreement in policy for leprosy control throughout the territory. It was evident that a real advantage had been gained by the unification of policy and coordination of effort which derived from a unified leprosy service. It was an advantage, also, for the Medical Department of the government to be actively engaged in leprosy control services, and thus to be able to speak with the authority of practical experience and knowledge of the facts. It was, however, considered neither necessary nor desirable to expand further the Leprosy Service as a purely governmental function. Instead, the policy now is one of cooperation between medical missions, local authorities and the Medical Department in a concurrent effort, everywhere assisted by such public funds as may be available for leprosy control.

At the end of this article is given a list of existing leprosy treatment centers in Nigeria, together with an indication of the type of institution giving such therapy. On April 1, 1951, there was a total of 27,743 segregated patients and 28,139 outpatients under regular treatment. This widespread work is now coordinated through the medium of the Nigeria Leprosy Service.

A statutory body, the Central Leprosy Board, gives ample representation to all interested parties. This board is advisory to the Director of Medical Services on the subject of leprosy control, and thus nongovernment leprologists share in deciding the policy on which they are asked to cooperate.

Because the problems of leprosy control vary with local conditions, Regional Leprosy Advisory Commitees have been set up in each of the Northern, Western and Eastern Regions. On these committees government medical and administrative officers are in consultation with missionaries and African local authority representatives.

At the provincial level, to deal with the immediate practical problems, there is the Provincial Leprosy Board. This board is under the chairmanship of the senior administrative officer of the province, and the members are district administrative and medical officers, local authority representatives and medical missionaries.

Thus, while the policy of leprosy control is discussed and decided by the Regional Advisory Committees and by the Central Leprosy Board, the actual control work is organized on a provincial basis. Each of the 24 provinces of Nigeria and the Cameroons is to have at least one fully equipped leprosarium; and a leprosy control service, directed and controlled from the central leprosarium, is to cover the whole province. In seven provinces such an organization of a central leprosarium and rural control services already exists; in nine others the leprosaria have been established, and from them the rural control services can be developed.

THE LEPROSY SEGREGATION VILLAGE

The aim of the present policy is nothing less than the segregation of all proved infective patients. The prevalence of the disease is such that it is impossible to provide for all such cases in properly equipped leprosaria. The Central Leprosy Board, therefore, has agreed to a scheme for leprosy control which was devised and created first in the Owerri Province by Dr. T. F. Davey, O.B.E., and which, having been in operation in several provinces for periods of five to twelve years, has proved efficient and successful.

The scheme involves the provision of "village segregation" combined with treatment clinics. As a result of propaganda and example, each local community is persuaded to provide, at its own expense, its own leprosy segregation village. The infective patients of that community thus can live under conditions of segregation in which they are able to maintain themselves on land provided by the community or even on their own hereditary land. At or near the segregation village a clinic is maintained at which leprosy patients receive free treatment, both for leprosy and for concurrent diseases and ailments. These segregation villages, dispersed over the whole province, are supervised from the central leprosarium, which forms the "mother unit." Patients from the villages can be admitted to the leprosarium for specialized care or treatment as occasion may arise. African leprosy inspectors, trained at

the leprosarium and working under the supervision of the provincial leprologist, are posted to take charge of districts and communities and are responsible for the tracing and detection of cases, for propaganda, for the follow-up of patients and contacts, and for the routine supervision of the segregation villages and clinics in the area. Treatment in the clinics is carried out by patients who have been trained in the central leprosarium. The great advantages of such a system are:

1. Infective patients can be segregated at minimal expense to public funds, which have to meet only the cost of specialized staff and of treatment.

2. Properly controlled treatment of leprosy can be provided at a center within easy reach of the patients, and with a resident nursing orderly to attend to all their needs.

3. To accept segregation, patients need not be divorced from their home environment and domestic responsibilities.

4. Patients are under supervision from, and in touch with, a leprosarium to which they can be transferred for treatment of the more serious complications.

5. A community which has gone to the trouble and expense of providing a segregation village for its infective patients is most likely to ensure that the village fulfills the purpose for which it was provided. Segregation is thus enforced by local public opinion rather than by any legal sanctions, and it is the more efficient for that reason.

APPROVED POLICY FOR LEPROSY CONTROL

The policy for leprosy control in Nigeria, which now has been implemented and is being developed as fast as staff and funds will permit, can be summarized as follows:

1. In every province or suitable area of Nigeria there shall be established at least one central leprosarium for not more than 1,000 patients, fully equipped with hospital and laboratory facilities. Medical missions will be assisted from public funds to establish leprosaria where none exist, and to develop existing institutions. These central leprosaria will give priority to the admission and treatment of infective patients and of children.

2. Based on the central leprosaria, and under the supervision of their staff, there will be built up a network of rural control services with segregation villages provided by the local communities for their own patients. African workers, trained

at the leprosaria and under supervision therefrom, will operate these rural control services.

3. Outpatient clinics, in the absence of facilities for segregation of proved infectious cases, will be actively discouraged.

The Leprosy Service of the Nigeria government's Medical Department is the medium whereby all the control work throughout the country is coordinated. This service can make available a survey unit which can be employed as and where required. The Leprosy Service has also its research unit, located at the Uzuakoli Settlement and under the charge of Dr. John Lowe. This unit was first established by the British Empire Leprosy Relief Association, and now as part of the government's service is proving invaluable in providing guidance for the development of the policy of leprosy treatment and control.

At first sight it might appear that this scheme of leprosy control is aiming too high to be practicable, in a country of very limited resources of qualified medical staff and of public funds. There are, however, several factors present in Nigeria which make the problem easier and give promise of effective control of the disease. As yet there is no desperate poverty, and severe malnutrition is not common. In Southern Nigeria tribal tradition provides a cooperative public opinion, and in the south also the Christian missionary societies and their African churches have a widespread and important influence which can be used to assist our efforts. Throughout the country lepromatous cases never exceed 20 per cent of the total, and commonly they comprise less than 10 per cent. Lastly, sulfone therapy so curtails the length of treatment required to render a patient symptom-free that we confidently expect a great acceleration in the turn-over of patients under treatment; a fast-diminishing reservoir of infection should result. It is considered, therefore, that we have good reasons for optimism about the future success of leprosy control in Nigeria.

ACKNOWLEDGMENTS

It is only fitting that in giving this outline of Nigeria's scheme of leprosy control, tribute should be paid to the work of the Christian missionary societies and their doctors. For many years medical missions were the only agencies of antileprosy work in Nigeria, and their medical missionaries, with workers of the British Empire Leprosy Relief Association, were the only persons specializing in the control and treatment of leprosy. It is on the foundations firmly laid by these missions that now is being built a more comprehensive service, and it is through their ready coopera-

tion that the development and maintenance of this structure has been made possible.

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RESÚMEN

En la Nigeria, con una muy variada población de cerca de 25,000,000 de habitantes, la incidencia de lepra varía grandemente en las diferentes regiones, pero es alta en todas ellas. La información a mano indica una incidencia de aproximadamente 20 por mil en la region norte (Muslin); de 5 a 10 por mil en el oeste de las provincias del sur; pero de 30 a 60 y hasta 80 por mil en las secciones este de las provincias del sur. Afortunadamente, los casos tuberculares crónicos comprenden el 90% del total y en los casos lepromatosos las complicaciones son relativamente poco frequentes.

Aún así, el problema es tan grande, que con los limitados recursos económicos, hasta recientemente el gobierno había podido hacer muy poco; por muchos años la mayor parte de la labor entre leprosos que se llevaba a cabo, era la hecha por sociedades misionarias. Durante un periodo experimental de 5 años, empezando en 1945 y trabajando juntamente con las correspondientes sociedades misionarias y las autoridades locales, el Departamento de Medicina proveyó personal para operar un servicio de lepra en algunas provincias del sur. Por consentimento mutuo, tres de los más grandes ya establecidos campamentos, Río Oji, Uzuakoli y Ossiomo, se convirtieron en unidades del servicio; y el gobierno estableció un cuarto campamento en la provincia Ríos.

Comités de consejo centrales, regionales y provinciales han sido organizados, todos ellos coordinados por el servicio de lepra del Departamento Médico. Se le ha dado gran importancia a las colonias de segregación para los casos infecciosos, y a los clínicas de tratamiento para casos ambulantes, éstas trabajando conjuntamente con los leprosarios centrales; la población, que es muy cooperadora, provee las bases para estos establecimientos. Hay planes para que cada una de las 24 provincias de la Nigeria y Camerones tenga por lo menos un leprosario bien equipado, como centro de control en la provincia; este servicio ya está operando en siete provincias, y en otras nueve ya se han establecido leprosarios.

TABLE 1.—*Leprosy treatment centers in Nigeria, and numbers of patients under treatment as of March 31, 1951.*[a]

Province	Name of center	Type of center	Supervising authority	Number of patients	
				Segregated	Unsegregated
Onitsha	Oji River Leprosy Settlement	Leprosarium & 28 villages	Govt. M. D.; Church Miss. Society	1,094 684	8,737
Owerri	Uzuakoli Leprosy Settlement	Leprosarium & 31 villages	Govt. M. D.; Methodist Mission	3,932	7,242
Rivers	Rivers Leprosy Settlement	Leprosarium & 11 villages	Government Medical Department	605	2,477
Adamawa	Garkida Leprosarium	Leprosarium & 1 village	Church of the Brethren Mission	1,599	....
	Gurum Clinic	O. P. clinic	Sudan United Miss.	....	214
Bauchi	Bauchi Leper Camp	Seg. village	Local Authority	82	....
	Azare Leper Camp	Seg. village	Local Authority	46	16
	Biliri Clinic	O. P. clinic	Sudan Inter. Miss.	....	225
	Gelengu Clinic	O. P. clinic	Sudan Inter. Miss.	....	306
	Tula Wange Clinic	O. P. clinic	Sudan Inter. Miss.	....	225
Benue	Benue Leprosy Settlement	Leprosarium & 5 villages	Dutch Reformed Church Mission	3,092	....
Bornu	Bornu Leper Farm Colony	Leprosarium & 3 clinics	Sudan United Miss.	433	149
Ilorin	Omu Aran Settlement	Leprosarium	Sudan Inter. Miss.	387	....
	Patigi Lep. Village	Seg. village	Sudan Inter. Miss.	110	10
Kabba	Oyi River Leprosy Settlement	Leprosarium	Sudan Interior Mission	1,060	21
	Ochadamu L. Village	Seg. village	Que Iboe Mission	134	....
Kano	Kano Leper Home	Leprosarium	Sudan Inter. Miss.	610	....
	Hadejia Leper Camp	Seg. village	Local Authority	31	7
Lagos Col.	Yaba Asylum Clinic	O. P. clinic	Government M. D.	....	87
Abeokuta	Egba Native Auth. Leper Camp	Segregation village	Local Authority	63	....
	St. Francis Leper Settlement	Segregation village	Catholic Mission	30	....
Benin and Warri	Ossiomo Leprosy Settlement	Leprosarium & 18 villages	Govt. M. D. and Catholic Mission	1,072 2,231	 2,520
Ondo	Akure Native Auth. Leper Camp	Seg. village	Local Authority	302	53
Oyo	Baptist L. Colony, Ogbomosho	Leprosarium & 9 villages	American Baptist Mission	1,436	....
	Wesley Guild Hospital, Ilesha	Seg. village	Wesley Guild	13	42
Bamenda	Bamenda Native Auth. Leper Camp	Segregation village	Local Authority	144	....
Calabar	Itu Leper Colony	Leprosarium	Ch. Scotland Miss.	3,211	....
	Ekpene Obom Colony	Seg. village	Qua Iboe Mission	347	....
Ogoja	Ogoja Leprosy Settlement	Leprosarium & 5 villages	Catholic Mission	471 1,400	92 269
	Abakaliki Leprosy Settlement	Leprosarium & 2 villages	Catholic Mission	817	47

TABLE 1 continued

Province	Name of center	Type of center	Supervising authority	Number of patients	
				Segregated	Unsegregated
Ogoja	Uburu Leprosy Settlement	Leprosarium & 8 villages	Church of Scotland Mission	176 916	285 1,007
Katsina	Katsina Leper Home	Leprosarium	Sudan Inter. Miss.	316	....
Niger	Diko Leper Village	Seg. village	Sudan Inter. Miss.	41	132
	Serikin Pawa Vil.	Seg. village	Sudan Inter. Miss.	32	5
	Izom Clinic	O. P. clinic	Sudan Inter. Miss.	....	23
	Karu Clinic	O. P. clinic	Sudan Inter. Miss.	....	1,155
Plateau	Leprosy Hospital, Vom	Leprosarium & 13 clinics	Sudan United Miss.	104	388 1,734
	Aloci L. Settlement	Seg. village	Sudan United Miss.	56	203
	S. I. M. Lep. Clinics	3 O. P. clinics	Sudan Inter. Miss.	....	147
	Pankshin Leper Camp	Seg. village	Local Authority	10	6
Sokoto	Sokoto Leper Home	Leprosarium	Sudan Inter. Miss.	337	....
	Gusau Clinic	O. P. clinic	Sudan Inter. Miss.	....	22
Zaria	Zaria L. Settlement	Seg. village	Church Miss. Soc. and B. E. L. R. A.	179	5
	Zaria City L. Clinic	O. P. clinic	Church Miss. Soc. and B. E. L. R. A.	....	74
	Albarka Fellowship, Kaduna	Segregation village	Albarka Fellowship	70	7
	Kagoro Lep. Village	Seg. village	Sudan Inter. Miss.	70	....
	Gure Clinic	O. P. clinic	Sudan Inter. Miss.	....	207
TOTALS				27,743	28,139

[a] Abbreviations: Lep. and L. = leprosy or leper. Auth. = authority. O.P. = outpatient. Seg. = segregation. Govt. M. D. = Government Medical Department. Miss. = Mission. Inter. = Interior. B.E.L.R.A. = British Empire Leprosy Relief Association.