

# Leprosy and the Community

## LEPROSY CONTROL IN ETHIOPIA<sup>a</sup>

S. G. BROWNE

An account is given of the Government programme of leprosy treatment/control in Ethiopia, in which 48,352 patients out of an estimated total of 125,000 have been brought under treatment, mainly through clinics operating in small market towns. Reasons for the failure of premature attempts at integrating the leprosy service into the general health services are given. Tribute is paid to the co-operation of voluntary agencies, the work of ALERT, and the Armauer Hansen Research Institute.

The modern history of leprosy in Ethiopia really begins with the founding of the Princess Zenebework Memorial Hospital (near Addis Ababa) in 1932, although the Order of Malta had established an Institution for the study of leprosy in Tigre Province some two years previously. His Imperial Majesty, Haile Selassie I enlisted the co-operation of the Sudan Interior Mission, which built the hospital with a grant from the American Leprosy Missions, Inc. The World Health Organization and UNICEF showed interest in the leprosy problem in Ethiopia, and in 1958 welcomed an application from the government for assistance.

While the prevalence rates of leprosy in Ethiopia are not high by African standards, yet in a population of about 25 million a rate of 5 per 1000 means that some 125,000 persons are suffering from the disease. Higher rates than the overall are found in the Central Highlands (10 to 25 per 1000) and in the South East Highlands (10 to 15 per 1000). At present, some 48,352 patients are under treatment, about half of them by voluntary agencies working closely with the government and conforming to the official programme of leprosy treatment.

Given the scattered nature of the population, the poor communications, the low standards of hygiene, and the rudimentary rural health services, it is obvious that low-cost coverage is the only practical way forward. The "market saturation" principle has been adopted, by which treatment is made regularly available at all markets where people congregate on set days. By self-reporting and personal recommendation of registered patients, word gets around that leprosy can be treated. The need for this provision can be estimated from a consideration of the population density in the given area, together with an appraisal of the prevalence rate of leprosy as adjudged from small representative pilot surveys. Since it is suspected that about 15% of the 125,000 leprosy sufferers have some degree of disability and that 5% are totally disabled, the economic cost to the community of neglected leprosy becomes apparent.

<sup>a</sup> Based on a report by E. W. Price, Chief of the Leprosy Control Project, Imperial Ethiopian Ministry of Public Health, Addis Ababa.

Premature attempts at integrating the developing leprosy service into the general health services failed. Many reasons for this failure may be advanced; for example, the inadequate data of leprosy prevalence provided from inadequate surveys; the existence of static treatment centres, ill sited and ill suited for dealing with a chronic stigmatizing disease requiring prolonged treatment; the lack of central and peripheral control of drug despatch and distribution; and finally, poor supervision of the clinics and their standards of diagnosis and treatment. As a result of a bureaucratic decision to integrate, the regularity of attendance of patients fell to 10%, many of them failing to attend after the initial visit when they registered. It was the experience in many centres that medical auxiliaries, though responsible for treating everybody, neglected patients suffering from leprosy. If plans for combining treatment for leprosy with treatment for other endemic diseases can be developed locally—with full regard to local conditions and due deference to local sociological factors—then self-defeating, premature, attempts at integration would not be advocated.

Since 1964, mobile clinics have also been a feature of the anti-leprosy campaign. The main objects have been to provide treatment for as many patients as possible, as near their homes as is possible, and as early in the disease as possible. Hence, in addition to “market saturation”, simple static clinics, “treatment posts”, are provided every 10 km. It has been found that regularity of treatment depends on other factors than the sophistication of the service provided, but the low educational standards of the majority of medical orderlies militates against the raising of standards of treatment.

Cost/effectiveness enquiries have revealed that it is uneconomic to provide a treatment post for fewer than 20 patients. Where the prevalence rate/population density is high, then special facilities for leprosy treatment are necessary; but where this ratio is low, use should be made of existing health facilities.

The co-operation of voluntary agencies in the leprosy control programme is welcomed, and financial inducements are offered to those bodies conforming to official plans and recommendations to move into the rural areas with domiciliary treatment schemes. Tribute is paid to the valuable co-operation of voluntary agencies, who bring finance, experienced staff, and dedicated medical auxiliaries into the anti-leprosy campaign.

Although rehabilitation as such is only marginally the concern of the Report, appreciative comments are made on the work of ALERT in this field, and that of the Ethiopian Leprosy Relief Association. The influence of ALERT in raising standards of diagnosis and care, of laboratory cover and reconstructive surgery, and of teaching in an All-Africa context needs no emphasis, and the fundamental contributions made in the Armauer Hansen Research Institute, which is situated close to the Princess Zenebework Memorial Hospital, are being acclaimed the world over.

The anti-leprosy campaign in Ethiopia has much work to do and it has got off to a solid and promising start.

### LEPROSY IN THE U.S.S.R.

Monsieur Marcel Farine, the President of *Emmaüs Suisse* (the Swiss Leprosy Relief Association) and this year's President of ELEP, paid a visit to the U.S.S.R. in September 1973.

At present, about 2000 leprosy patients are cared for in 16 leprosaria; some

70% of these are probably there for life, since they suffer from such gross deformities that they cannot be reintegrated into society. In addition, about 4000 are treated as outpatients. In 1972, 100 new cases were diagnosed in the whole of the country. Students from outside the U.S.S.R. account for 40 cases diagnosed during the past 20 years.

Leprosy research institutes in Moscow, Astakhan and Rostov-on-Don are interesting themselves in a wide range of problems appertaining to leprosy. Many doctors, besides those working in the institutes themselves, are concerned with leprosy in the U.S.S.R., and 176 leprosy specialists meet regularly for seminars and discussions on problems of research and treatment.

For the past 6 years, the activities of the Moscow Research Institute have been closely linked with the Leprosy Section of the WHO. *Emmaüs Suisse* has helped by providing chemical reagents difficult to come by in the U.S.S.R., as well as photographic supplies.

### INAUGURATION OF GOVERNMENT SPONSORED LEPROSY CONTROL PROGRAMME IN SIERRA LEONE

Fifteen years of survey and rural leprosy control work by voluntary agencies in Sierra Leone received official recognition and support in January 1973, with the inception of a Government sponsored leprosy control programme designed to cover the whole country.

Sample surveys, undertaken by the late Dr C. M. Ross in 1957, revealed a prevalence of leprosy in Sierra Leone sufficient to demand specific control measures, especially in the Northern Province. LEPRO, which had sponsored the survey, appointed Mr Lowes, an experienced Leprosy Control Officer from Nigeria, to organize out-patient clinics in all the Districts of that Province in co-operation with the Ministry of Health, to which Mr Lowes was officially attached.

In 1963, Catholic Relief Services (CRS) began to assist leprosy work in Sierra Leone, following up the opening by the Catholic Mission, Makeni, of three general and leprosy clinics in the Bombali District. The whole programme, organized by Mr Lowes, LEPRO representative, and the Rev. Rocco Serra, then Director of CRS, was based on mobile units covering the whole of the Northern Province, with transport provided by OXFAM and LEPRO, and CRS providing food for patients. In a few months the new programme had an additional 6000 patients under treatment. Dr Leo Stocco, a missionary doctor with experience in leprosy work in China and East Pakistan (now Bangla Desh), joined the Catholic Mission, Makeni, in 1965 to participate in this programme.

In 1966 the German Leprosy Relief Association also began to participate, assisting generously with the building of a hospital centre at Makeni, comprising wards for about 30 patients, operating theatre, laboratory, physiotherapy and chiropody facilities, and an orthopaedic shoemaking centre, plus a general and leprosy outpatients' clinic. The same organization maintains the centre, and with expatriate help, five Sierra Leonians are being trained as cobblers.

LEPRO increased its assistance for the Sierra Leone Programme both by substantial grants-in-aid, and by providing three more Leprosy Supervisors to be attached to the Ministry of Health and be responsible for the Southern and Eastern Provinces.

With this substantial assistance, augmented by the interest and help of Cafod

known leprosy patients in all three groups received treatment throughout the trial period. After the 8th year, the incidence of leprosy in the villages that had received prophylaxis throughout was 0.43/1000; in the control villages, it was 1.31/1000; in the villages that had received prophylaxis for the first 4 years only, it was 1.46/1000.

Leprologist and an Administrative Director under the Deputy Chief Medical Officer, General Manager and Director of the Programme. (b) A Leprosarium at Masanga for special cases of leprosy and rehabilitation. (c) A Leprosy Hospital at Makeni for cases of reaction and temporary hospital treatment. (d) Shoemaking Centres at Makeni and Masanga to provide proper sandals and shoes for patients with foot ulcers. (e) A ward for leprosy patients attached to a number of hospitals in the country. (f) Sixteen Mobile Units to bring health education and treatment to the patients in their own villages. (g) Each Centre, attached to the local hospitals, has a Leprosy Control Officer as supervisor of the teams. Three Medical Doctors with special training in leprosy, residing in Makeni, Masanga and Bo, will be responsible for the medical aspects of the programme.

### TEACHING FILMS ON LEPROSY

Science Service (Berlin 31 Sächsische Str. 26) announces that the long-awaited film, entitled *Leprosy* is now available. This 30 minute colour film, with sound-track in English, French, German or Spanish, has been produced under the auspices of WHO and with the co-operation of leading leprologists from several countries. It was "shot" in Jerusalem, Ethiopia, Venezuela and Geneva, and concentrates on diagnosis, treatment, and rehabilitation, with some reference to the histopathological basis for the clinical findings. The price (excluding postage) is DM 2000 for a copy on 16 mm Eastman-colour Kodak, or DM 500 for the version on ½ in magnetic tape (Philips). Other sizes (35 mm and Super 8) are also available. Special prices will be quoted for medical institutions.

Two other films, 24 minute sound and colour, entitled *The Treatment of Leprosy* and *The Rehabilitation of Leprosy Patients*, are also on sale by the same organization at prices of DM 1500 on 16 mm Eastman-colour Kodak, or DM 500 on ½ in Philips magnetic tape.

When shown at the recent International Leprosy Congress at Bergen, *Leprosy* evoked appreciative comments. It should prove very useful in teaching medical students and physicians in countries of the Western world where clinical demonstrations are not generally possible. The quality of the presentation may be judged by the fact that, at the Berlin Film Festival in 1973, the film was awarded a Gold Medal.

#### (a) DAPSONE PROPHYLAXIS; (b) LEPROSY IN CHILD CONTACTS<sup>a</sup>

Dapsone prophylaxis confers an estimated 50% protection, according to an investigation in which the population in half the villages randomly selected, was given dapsone for 4 years, while the other half was used as a control. In the second 4-year period, the prophylactic drug was discontinued in half the villages that had previously received it, while in the other half it was continued. All

<sup>a</sup> Indian Council for Medical Research, Hind Kusht Nivaran Sangh, Annual Report, 1972, pp. 25-26.

(England), Fame Pereo (Canada), and Friends of Leprosy Patients in Italy and the U.S.A., the Ministry of Health in 1972 decided to sponsor a Leprosy Control Programme to cover the whole country, and this was inaugurated in January 1973.

*Organization of the programme.* (a) A central office in Freetown with a

The second investigation reported concerns a study made in Calcutta of the child contacts of leprosy patients. Out of 166 contacts of patients with contagious forms of leprosy, 72 had skin lesions, in 18 of which acid-fast bacilli could be demonstrated. Histological study showed epidermal changes in 22, subepidermal in 4, dermal in 25 and nerve pathology in 8. In the remaining 94 subjects (who had no visible skin lesions), acid-fast bacilli were found on histological examination in 4.

Among the 88 child contacts of patients with non-contagious forms of leprosy, 9 had skin lesions, in 8 of which no bacilli could be found on standard methods of examination; in one patient, scanty bacilli were found in a nerve.

Among the 79 children with no visible skin abnormality attributable to leprosy, only 1 showed acid-fast organisms in the smear.