Editorial

How many people in the world have leprosy? This is a question which is frequently asked, but it is difficult to give a definite answer.

In " Leprosy " (Rogers & Muir) page 29, the following table is given of leprosy incidence in the British Empire:—

India	1921	Census	102,513	0.32	per mille
Ceylon	1921		577	0.13	„ „
Malay States ...	1921		450	0.34	„ „
British N. Borneo	1919		54		
Fiji	1920		450		
West Indies ...	1921	Census	1,189	0.74	„ „
British Guiana ...	1924		247	0.83	„
Cyprus	1921		74	0.23	„ „
Africa—Nigeria ...	1921	Census	32,000	3.20	„ „
Tanganyika	1924		11,480	2.80	„ „
Kenya ...	1922		2,018	0.74	„ „
Uganda ...	1919		(?) 3,000	1.00	„ „
Nyasaland	1921	Census	1,666	1.39	„
S. Rhodesia	1921		1,000	1.11	„ „
S. Africa	1923		2,501	0.46	„ „
Mauritius	1923	(Balfour)	600	1.60	„ „
Palestine	1902	(Jeanselme)	600	0.86	„ „

According to these figures, founded on Colonial Medical Reports, there are 160,000 cases in the British Empire.

There is good reason to believe, however, that the number is far greater. Surveys carried out in India during the last 10 years have shown that multiplication of the census figures by 10 would not be an exaggeration. Dr. Macdonald, from his extensive knowledge of leprosy in Nigeria, recently computed the number of cases in that country as 200,000; while in Rogers & Muir it is argued that " the total lepers in tropical Africa cannot be less than 500,000, and may easily amount to double that number, including early cases." We may therefore take the number of cases in Africa, as in India, as half to one million.

In the table above, the Malay States are shown as having 450 cases; but in the Leper Colony at Sungei Buloh alone there are over 1,100.

We are therefore, in making a rough computation of the incidence of leprosy in other parts of the British Empire, justified in multiplying the figures in the table by 5—10, giving 15 to 30 thousand.

It is held by doctors with prolonged experience of leprosy in China, that the number is from 1 to 1½ million.

From an article by Dr. Browning, appearing in the last

number of this journal, it may be gathered that there are at least 100,000 cases in South America, and possibly far more.

French Indio-China, Siam, the Dutch East Indies and many of the islands of the Pacific, are highly endemic areas, and have at least 100,000. In Europe there are at least 6,000 cases.

The following table gives the maximum and minimum figures.

	Minimum.	Maximum.
China	1,000,000	1,500,000
India	500,000	1,000,000
Africa	500,000	1,000,000
British Empire outside of Africa and India ...	15,000	30,000
South America	100,000	150,000
Europe	6,000	10,000
Other Countries	100,000	150,000
Total ...	2,221,000	3,840,000

For a rough computation we may put the number as 2 to 4 millions in the world.

Leprosy is like tuberculosis in this respect, that many are infected in whom clinical disease never develops or gives discomfort to the patient. Such cases are likely to pass unnoticed except in the careful examination of contacts with frank infectious cases. Recent village surveys in N. India, in which careful examination of contacts has been carried out, show on an average 2 bacteriologically positive to 3 bacteriologically negative cases, the criterion of positive and negative being the ordinary routine examination.

It is therefore obvious that under careful examination of contacts the number is bound to rise, whereas when figures are based on more desultory methods the number will be less.

The plan of campaign against leprosy must necessarily vary in different countries, and according to the local conditions, such as the distribution of the population, their education and social conditions. In small islands with a limited and insulated population, and especially with a paternal form of government, strict laws of isolation following a careful survey may be sufficient rapidly to control the disease. In India conditions vary considerably in different places. Readers of "Leprosy in India" are familiar with

the Propaganda-Treatment-Survey method, reference to which is to be found in Dr. Jaikaria's report in the present number of this journal. In Africa, on the other hand, such methods are not at present applicable. The following letter from Dr. Macdonald, of the Itu Leper Colony in Nigeria, makes this clear :—

"I am very strongly of the opinion that in Nigeria the only progress that will ever be made in controlling leprosy is by means of leper colonies. Out-patient work I have found to be useless, and have taken none for five years. This is confirmed by other doctors who have tried it, and who, like myself, at the opening of a dispensary have had a large and enthusiastic band of patients. The following are the principal objections :—

1. Inadequate or no temperature taking. A patient for several days may show a normal temperature in the morning, and 103° to 105° in the evening.
2. Patients cannot be expected to walk one to ten miles in sun or rain, receive a painful, or at least never a painless injection —perhaps after a long wait, walk back again to their homes, and do this twice weekly for three to five years.
   In ulcerated or exhausted cases, the walk would do more harm than the injection would do good. There are very few large towns such as there are in India.
3. Intercurrent diseases cannot be properly treated.
4. Leprotic reaction cannot be controlled.
5. The patient goes home to infect others.
6. It would be impossible to see if lepers were getting properly fed. Giving injections to half-starved lepers is a waste of drugs. This applies principally to the debilitated and to children, strong people in Nigeria need never starve.
7. The African leper needs to be kept mentally and physically occupied by every possible means.
8. The attendance is so unsatisfactory that it will bring the treatment into disrepute.

"The fact is, with few exceptions the patients do not satisfactorily attend. It is difficult enough to get 'arrestment' in a colony. How many patients have attended regularly for 3 or more years and been rendered symptom-free by out-patient treatment alone?

"To make any progress in relief, I submit that we have to get two cardinal points into their heads :

1. That leprosy is contagious.
2. That leprosy is curable.

"*We* know that there are degrees of contagiousness, but the simple African will not appreciate distinctions, and I suggest that out-patient clinics will defeat the ideas in (1) and (2) in their minds.

"Re colonies, money is required for expenses apart from the provision of food by private gardens. The children and the helpless need to be supplied, and in Nigeria only the able-bodied men build houses. I have found that if sufficient interest is taken in the individual patients, most of them will stay as required for prolonged treatment."

There is, however, a distinct danger to be guarded

against in connection with leper colonies. Dr. Wiggins, from his extensive experience of Africa and anti-leprosy work, writes as follows:—

"I am bound to admit that the scheme of colonies for lepers and their healthy relatives does seem to be necessary. If carried out, definite rules are, I think, essential: (1) European daily supervision (residence, if possible, on the colony); (2) separate sleeping huts and separate utensils and bedding for those infected. On a large scale it might be possible to have the utensils and blankets for lepers of a different colour to those used by the healthy residents in the colony.

"Much as I dislike the idea of healthy children living on a leper colony, I do believe it to be the only way to secure prolonged regular attendance of lepers, and if the two conditions given above are carried out, with ample room and no crowding, dangers of contracting the disease can be reduced very considerably. Without such conditions, I think a leper colony might do more harm than good, in fact, I *know* that this is so."

On the other hand, the following note by Dr. Maxwell, in the "International Journal of Leprosy," Vol. 3, No. 1, gives the point of view of a worker in China:—

"From his own experience the writer is convinced that, speaking generally, leprosy is a disease of the villages rather than of the cities, and that the large majority of the sufferers in the cities have come there to work or beg. Of course, this is not a universal rule, and it may be untrue in other places, but we believe that it is the case in China at least. Yet little is being done for lepers in the villages where the disease arises, where the cases are largely in earlier stages than those seen in the cities, and where preventive measures may be applied —and must be applied if prevention is to be accomplished. In China, as elsewhere, leper settlements are built and rapidly filled with patients, each of whom might have been prevented from needing to find a place in such a home. Surely there is something wrong here.

"The cost of settlement treatment is high, while that of treatment in village clinics is low, not more than a tenth of the former. Is treatment in the settlement any more effective than in the clinic? In China, one is inclined to believe, patients who continue to live in their own homes and to follow their usual vocations may respond more rapidly to treatment than in the usual settlement. Finally, what is any settlement doing to prevent the spread of the disease in the homes? To a village clinic there may be attached health nurses to follow up the patients in their homes, teach them how to live healthy lives, how to protect the children, and how to recognise the disease in the earliest stage in the children when it does occur.

"It is not the intention in writing this to suggest that settlements are unnecessary, but it is held that a radical change of emphasis is urgently required. The day may come when the settlement may be regarded as a mere adjunct in the proper treatment of leprosy, a place for the few who escape the screen of village clinics, and for those who fail to respond to treatment. This is an ideal which, it is granted, may be impossible of attainment in many places at present, but it is one towards which our energies should be focused."