## REPORT FOR 1944 OF THE INDIAN COUNCIL OF B.E.L.R.A.

The Leprosy Department at the School of Tropical Medicine, Calcutta, organised and staffed in part by the Indian Council, has done some very valuable work, especially in clinical. immunological, and epidemiological studies.

## Clinical

There are two main types of leprosy, lepromatous and neural, which have certain definite characteristics distinguishing them from each other. From the points of view of prognosis, treatment, and prophylaxis, it is very important to distinguish the one from the other. While the great majority of cases can easily be divided into one category or other, there are a few intermediate ones which are difficult to distinguish. A very thorough study of these atypical cases has been made. While the matter is too technical to give in full, two quotations may be of interest :

"Our study has so far shown that, in some of the cases, the atypical and histological findings are temporary and are often associated with the phase of reaction. In some other cases, however, the atypical findings persist. The lepromin test appears to be of definite value in sorting out these cases of doubtful classification.

" It is often said that, in children, the prognosis of leprosy has to be a guarded one. A study is being made of the prognosis of the disease in children with the different kinds of lesions. The study has so far shown that, in cases of tuberculoid lesions at least, the prognosis amongst children is as good as amongst adults."

The histamine test is recommended for use in cases with suggestive but indefinite signs of leprosy; especially in children.

## Immunology

The lepromin test has been studied, and it has been found that the three protein fractions obtained from the leprosy bacillus give a more immediate and reliable result in testing for a patient's resistance to leprosy, and in distinguishing the types of the disease. An attempt was made to obtain proteins with similar action from other acid-fast bacilli, which can be cultured in artificial media. This would very much simplify the production of the material used for the test. The acid-soluble proteins of four of these bacilli was effective in most cases, but unfortunately not in all.

## Epidemiology

A very careful re-survey of a limited area in the Bankura district was made. This area was first surveyed in 1937, and up to and including 1944, four other surveys were made. The numbers found are tabulated as follows :

			Cases	
Yea	.r	Neural	Lepromatous	Total
	1937	328	- 96	424
June,	1941	333	89	422
,,	194 <b>2</b>	337	91	4 <b>2</b> 8
,,	1943	338	91	4 <b>2</b> 9
,,	1944	316	76	39 <b>2</b>
January,	1945	417	73	490
	June, ,, ,,	June, 1941 ,, 1942 ,, 1943	1937 328   June, 1941 333   ,, 1942 337   ,, 1943 338   ,, 1944 316	Year   Neural Lepromatous     1937   328   96     June, 1941   333   89     ,, 1942   337   91     ,, 1943   338   91     ,, 1944   316   76

The total population in 1937 and 1944 numbered approximately the same. "The number of new cases, 107, detected during the year 1944 has been unexpectedly high. During the previous six years, the number of new detections was, on the average, about 20 per year. During the present year, because of the re-survey, it was expected that this number would be considerably higher, but not more than five times as high as in the previous years. The more thorough examination during the year is, no doubt, greatly responsible for this increase. While, during the previous years, new cases were detected through examination of contacts, and of persons under suspicion, etc., during the present year the whole population has been re-surveyed, each individual person being examined. As a result of the thorough examination, many undetected cases present in the area for some years, several over five years, have been detected during the re-survey.

"The original survey in 1937 revealed a total number of 424 cases. Till June 1943 this number was more or less maintained. In the latter half of 1943, due to acute economic distress, there

was a large number of deaths amongst the patients, especially of the lepromatous type. This resulted in a fall in the total number of cases during the early part of 1944, this fall being relatively more marked in the lepromatous cases. By the end of 1944, however, the total number of cases was more than made up by the large number of new detections made in the survey; the number of lepromatous cases, however, was still below its previous level. In a majority of the new cases, the onset of the disease has been reported, and appears to be quite recent. These observations suggest that the economic distress in the area has been responsible for the production of a large number of fresh cases, possibly by lowering the general resistance of the population through under-nutrition. If this be so, here is an example of the dual effect of the famine conditions on the leprosy situation in the area. During the famine a large number of cases died, and there was a material decrease in the number of patients in the area; in the period following the famine a large number of fresh cases appeared, possibly as a result of the lowered resistance of the population, and the number of cases in the area has actually increased."

There are reports on the following branches : Madras, Bengal, Central Provinces and Berar, Bihar, Orissa, Bombay, Punjab, Central India, Bangalore, and Hyderabad. The following extracts from the reports of the Madras and Central Provinces Branches are of special interest :

" Perhaps the most outstanding development of the whole year is seen in the issue of an order by the Government at the close of the year giving their approval to the post-war reconstruction scheme for leprosy, placed before them last year. The occasion for this order was the resignation of Dr. R. G. Cochrane, Hon. Secretary of the British Empire Leprosy Relief Association (Madras Provincial Council), when he became the Principal of the Missionary Medical College, Vellore. This order creates two essential units, which mark the commencement of a real effort by Government to solve this problem. These two units are : (a) the office of the Honorary Director of the Leprosy Campaign, and (b) a Research Unit. It is believed that, by the creation of these units, machinery and staff is being set up which will result in a great advance in the campaign in this Presidency. Dr. R. G. Cochrane has been appointed the first Honorary Director of this campaign, and it is confidently hoped that, ere long, the results of this far-sighted step on the part of Government will be seen, and that other provincial governments will follow the lead of Madras."

The Central Provinces Branch reports that "a leprosy committee was appointed by the Government of the Central Provinces and Berar to review the existing anti-leprosy activities of the Province and to make suggestions for the future development of the work on sound lines."