

Leprosy in the West Indies.

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THE tour which was made recently through the West Indies revealed one or two most interesting facts. The two chief points which might be referred to briefly in passing, are firstly that the incidence of leprosy seems to go *pari passu* with the economic condition of the country and, secondly, from superficial observation, there seemed to be a racial factor influencing the type of disease seen in individuals. For instance, in Trinidad, where the East Indian population has been domiciled from the time of the repeal of the Slavery Act, Dr. Urich, the Medical Superintendent of the Chacachacare Leprosy Settlement, pointed out that the Indian almost invariably acquired a type of the disease which was different from the African, and, generally speaking, the negroid races showed much more severe cutaneous manifestations than the Indians.

The following notes are a short summary of the reports which have been forwarded to the various Governments concerned :—

JAMAICA.

Jamaica, the largest of the Islands, has a population of approximately 858,118, consisting of 14,473 white, 157,223 coloured, 660,420 black, and an East Indian proportion of 18,610. The remaining population consists of Chinese and other nationalities. These figures are from the census taken in 1921. At the end of 1922 the total population was 1,073,493. The island has been in British occupation since the seventeenth century. In 1896, the Leper Asylum Law was promulgated. This made provision for isolation of two kinds of cases : (a) the sufferer from leprosy who was unable to take care of himself ; (b) the pauper who was discovered begging or exposing himself in the public streets. So long as a case of leprosy was able to maintain himself in private and was not allowed to be at large, then on giving security in a bond of £20 the case was not transferred to the Asylum. The Leper Asylum Law therefore only makes provision for the isolation of such persons suffering from leprosy who are fit subjects for gratuitous relief, or who are unable through poverty to provide themselves with proper medical attendance and the medicine and diet suitable for this disease. Since the promulgation of the law, the admissions to the Asylum have been maintained at a level of about 120. At the end of 1933 there were 119 inmates, 56 females and 63 males, and a death-rate of 9.3%. In 1933, the total

discharges were 14 ; in 1931, 5 ; and in 1932, 2. During the period under consideration the population of Jamaica has increased considerably, and within the last decade the increase has been about 300,000.

Leprosy is probably more or less stationary in Jamaica. There is certainly no evidence of its increasing, and if one takes into consideration the considerable increase of population over the past decade, then it would be legitimate to conclude that the incidence of the disease is actually diminishing. The economic condition of Jamaica compared with the other islands, is comparatively good, the population is fairly highly civilised and there is not the same evidence of acute distress as there is in certain of the other islands. It is largely for these reasons that leprosy has become a problem which is not of as great a magnitude, as for instance, tuberculosis and yaws. The former disease is extremely rife throughout Jamaica, and the Government is concentrating on this problem. While it is evident that leprosy is not a serious problem in the island, there is reason to believe that there are certain foci of the disease which need attention. A glance at the map of Jamaica will indicate very clearly that there are certain parishes in which practically no cases have been reported. On the other hand, there are other parishes from which numerous cases have arisen from time to time. It is natural to find that around the larger towns such as Kingston, a greater number of cases arise. The reason for this is that the indigent pauper case tends to drift from the country into the towns. Furthermore, as a result of the crowding together in the poorer districts of the towns and the economic condition which ensues, the environment is more favourable for the spread of the disease.

It was concluded as a result of the examination of the areas from whence cases had been reported, that there were certain definite foci which might be more thoroughly investigated. For the purposes of such an investigation it was considered that any district from which three or more cases had arisen represented a possible focus, and as many of these areas came under the purview of those dealing with the problem of tuberculosis, it was thought possible that leprosy and tuberculosis in these areas might be considered together, for the methods for combating tuberculosis are similar to those for dealing with leprosy, especially with regard to propaganda, the raising of economic conditions, etc.

It was impossible in the time at one's disposal to examine

school children in these areas, and therefore, it was difficult to ascertain the incidence of the disease among such children.

As stated, the Leper Asylum Law only makes provision for the indigent case and therefore, those who are able to look after themselves do not need to be isolated. How far general practitioners treat the disease is difficult to ascertain, although I met quite a number of practitioners in Kingston at a lecture which was given there, and from talking with them and others, it is evident that it is not a disease which practitioners treat frequently. The Leper Asylum Law may need some modification, but before any such modification can be made, it would be essential to discover as far as possible, in more detail, the endemic foci. As the disease is not of undue importance, it is, in my opinion, unnecessary to develop a widespread campaign or organised anti-leprosy measures throughout the island. There are, however, two methods by which further information could be amassed on the results of which a policy could be shaped. Firstly, in so far as tuberculosis is a cognate subject, the tuberculosis officer might be given instructions quietly to watch for cases of leprosy. This is the easier, as all contacts of existing cases of tuberculosis are examined, and therefore it would not be unduly difficult to keep a watch for cases of leprosy. This pre-supposes that the officers concerned are able to diagnose cases of leprosy in the early stages. To this end it might be advantageous to acquaint such officers through existing pamphlets of the essentials of early diagnosis. It would be still more valuable if an officer were sent to Trinidad, or British Guiana, in order that he might become acquainted in more detail with the methods of early diagnosis, treatment and prevention of leprosy. It would be necessary, however, to warn those officers in the parishes from which cases would probably appear, not to become alarmed because of the existence of early cases, and that it is only the open case which needs to be considered a public health danger. It is impossible in an article of this nature to expand on this subject. In addition, in parishes where the disease appears to be endemic, propaganda in schools through health authorities could gradually be developed. Again, as leprosy and tuberculosis are transmitted in a similar fashion, such propaganda could be linked up with that on tuberculosis. In this way, excessive propaganda could be controlled. In fact, if the officers on the tuberculosis campaign could be persuaded to include leprosy in their work, it probably would be the simplest means of combating the problem.

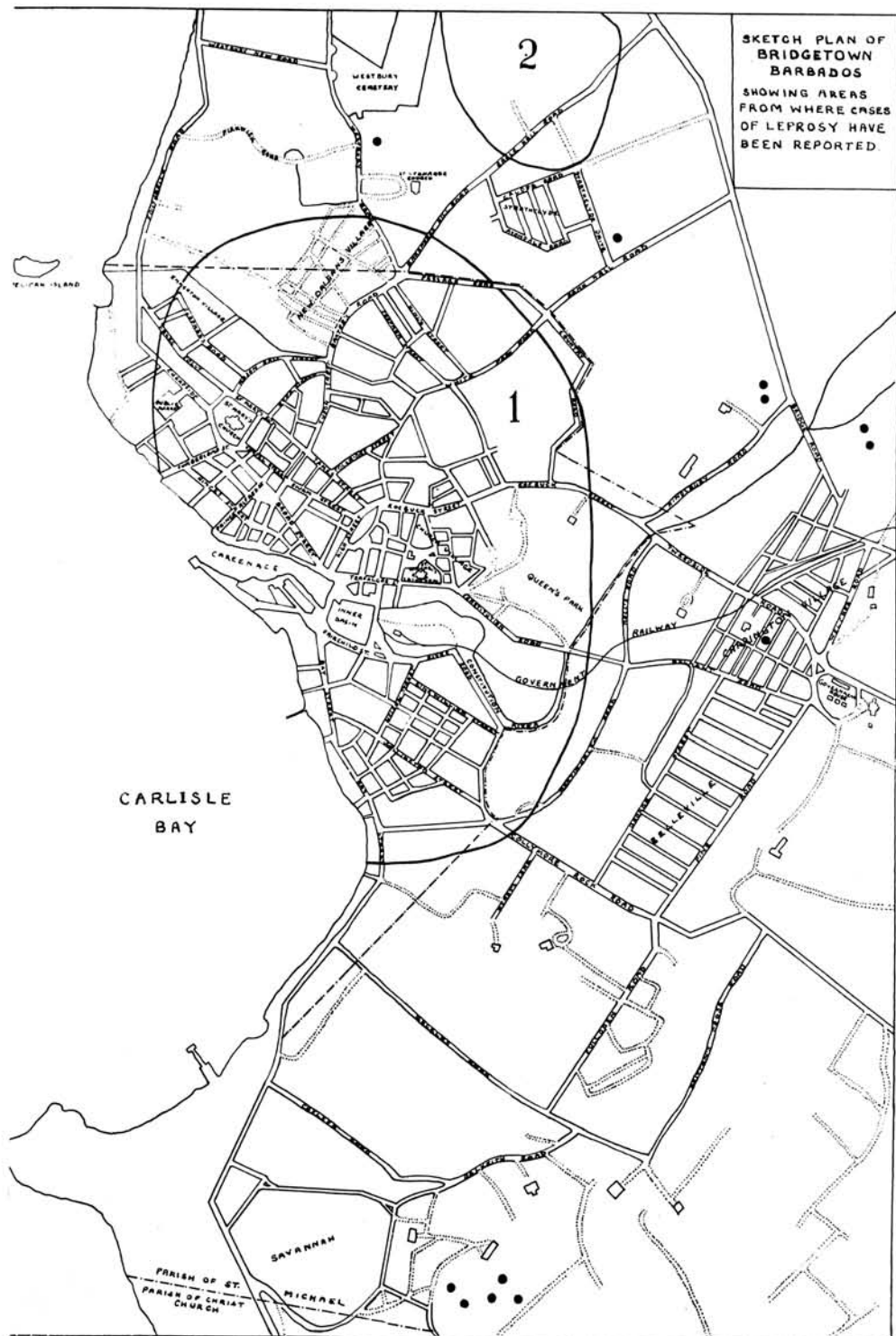
In view of the fact that the notification of leprosy does not on first sight appear to be resulting in the necessary information, it is suggested that all practitioners and medical officers be reminded that leprosy is a notifiable disease and that it would be permissible to notify such cases in a confidential manner, giving the number of cases, age and sex and district in which such cases were discovered, without stating name or other details. If the practitioners were encouraged to notify the disease in such a manner and confidentially along similar lines of notification as venereal disease in England, it might be an incentive to them to declare cases in their charge and so more accurate information might be available. If, as a result of these methods, a definite focus or foci of the disease were established, the next step in the prevention of leprosy would be to set apart an officer specially trained in early diagnosis with an all-round knowledge of the disease to commence a special detailed survey. It might be difficult to find an officer especially trained in the diagnosis of early leprosy and, therefore, if there were indications that the foci noted in this report were of importance, it would probably be worth while to send a medical man to Trinidad to have such training. If, however, it were found that no really important focus existed, then the machinery of leprosy control probably could be taken over by the tuberculosis department, if this suggestion were approved. General propaganda would probably be unwise, but in any area where leprosy is endemic, propaganda to combat the existing prejudices might be valuable. The belief about leprosy among the general public is that it is not a contagious disease, but that it is a blow from Heaven, and therefore the average individual, particularly the black population, takes no precautions whatever if he should come into contact with the disease. How far and to what extent any propaganda should be undertaken would depend on the result of the investigations suggested in this memorandum. It is impossible to make recommendations as to whether the Lepers' Home is situated in the right place, but if it were found out at a later date that more cases were being discovered, say in the Parish of Trelawny, then it would appear more reasonable to place an institution of the colony type with plenty of ground for cultivation in such an area, for it is always a difficulty to persuade cases to go into isolation a long way from the place where they live.

The general conclusion come to was that leprosy is not a disease which needs undue emphasis, and it will probably

MAP OF JAMAICA

SHOWING AREAS FROM WHERE
CASES OF LEPROSY
HAVE BEEN REPORTED





Area 1.—25 CASES OF LEPROSY REPORTED.
Area 2.—27 CASES OF LEPROSY REPORTED.
●.—REPRESENTS ISOLATED CASE REPORTED.

in the course of the next few decades, gradually disappear from the island. If the investigations are undertaken along the lines indicated, further information will be acquired concerning the disease and better methods of control will gradually be evolved.

BARBADOS.

The Island of Barbados is the most densely populated island in the British West Indies. It has a territory of approximately 166 sq. miles. The population in 1932 was 176,874. Its greatest length is 21 miles and its greatest breadth 14 miles. The average density is over 1,000 per sq. mile. The greatest density is in the parish of St. Michael, which has over 4,000 souls to the sq. mile.

Barbados has been in continuous occupation by the British since 1605. Leprosy has probably been an endemic disease from the time the island was settled until the present time. There seems, however, to be no doubt that the disease is at present on the decline. Further, it appears, as will be shown later, that there are only one or two foci which are of importance from the public health standpoint. This is shown by the fact that during the past ten years (1924-1934) the number of inmates in the home has fallen from 173 to 75.

The Leprosy Act lays down that every case of leprosy must be isolated either in the home on the outskirts of Bridgetown or else in such a fashion that the individual is completely isolated from the community in a house of his own. The criterion of such isolation, and for that matter for the diagnosis of leprosy, is based on the discovery of bacilli in the nasal mucous membrane.

In addition to the 75 inmates in the home there are 55 discharged inmates receiving monthly allowances and one case in private isolation. During the past 11 years, 85 cases have been discharged. It appears that there is considerable apprehension on the part of the general public regarding these cases, and it is well to emphasise the fact that cases discharged from the asylum with appropriate certificates are no longer a danger to the public and can be admitted into employment without endangering any community. There is a list of prohibited employments in which such persons cannot indulge. This might well be revised, for the more such patients are encouraged to return to ordinary life in the community, the less likely are they to relapse. Those cases, however, which are crippled and cannot find employment should probably remain in the home, or when

they are discharged from thence passed over to the Poor Law for maintenance.

The Leprosy Home is situated outside Bridgetown and, as has been stated, has a population of 75 inmates. It is kept tidy and the wards are clean. The type of construction gives it a prison-like appearance, but the authorities have endeavoured to overcome any such suggestion by providing recreational and gardening facilities. In addition to the men's and women's wards there is a section for better-class patients who are charged 5 dollars per month. The Medical Officer has had no special training and visits the Institution three times a week. Treatment is carried out by means of injections of alepol in a 3% solution. This is given intramuscularly, and chaulmoogra oil in a dose of 10 mm. is given twice a day. There is apparently no local treatment for the skin lesions. The Medical Officer visits the Institution regularly and performs his work to the best of his ability. He has, however, had no special training in leprosy. It has been suggested that it might be well to send him to Trinidad for a course of instruction. It is impossible adequately to treat the inmates or superintend the medical work of the institution unless the doctor in charge has acquired a special knowledge and, in the case of the Medical Officer who has other work to do, such knowledge is difficult to acquire unless he be sent to some institution for special training. Considering the size of the problem in Barbados, I am of opinion that the present institution for isolation of cases is adequate for the needs of the country.

As stated previously, the disease appears to be disappearing from the island and no longer needs to be considered as an endemic disease of any great importance; even so, the day when the disease disappears completely from the island could be considerably hastened if definite evidence of a focus or foci of the disease were discovered. It is naturally easier to deal, from the public health standpoint, with a disease which exists in certain areas than with one which is scattered uniformly throughout the country. As leprosy very seldom is found to be distributed evenly over a country, in all probability a focus or foci of the disease exists in Barbados. In order to ascertain whether such a focus existed, I had enquiries made along the following lines:—

- (1) The districts from which the last 100 admissions into the home came;
- (2) The addresses of the discharged inmates from 1930-1934.

As a result it was discovered that certain parishes have either only one or two cases reported or none at all. These are as follows :—

		<i>Discharged Inmates.</i>	<i>Inmates in Institution.</i>
St. Andrew	...	0	0
St. Thomas	...	0	1
St. Peter	...	1	1
St. Lucy	...	1	2

These parishes then need not be considered from a public health standpoint and no measures need be taken with regard to the control of leprosy.

Of the other parishes that of St. Michael has by far the heaviest incidence of leprosy, and the others of importance are apparently Christ Church, St. Philip and St. James. The figures are as follows :—

		<i>Discharged Inmates.</i>	<i>Inmates in Institution.</i>	<i>Total.</i>
St. Michael	...	37	51	88
St. Philip	...	6	8	14
St. James	...	9	3	12
Christ Church		6	22	28

All the cases from the St. Michael's parish appear to be coming from in and around Bridgetown, and the cases from Christ Church from the Coastal belt. I have endeavoured to make a spot map of the Parish of St. Michael showing from whence the cases are reported, and on examination it will be found that the chief areas which appear to be of importance are the following :—City area, Black Rock, Eagle Hall and Cave Hill, Carrington Village, St. Matthew and Greenhill. In the parish of Christ Church, cases are being reported (1) from Hastings and St. Lawrence, and (2) from Maxwell, Kendal Hill and Lowthers.

It, therefore, should not be difficult to examine contacts of the cases arising in this parish and to make a survey of the school children in an endeavour to find out where the disease is appearing during the early years of life. Further, if a number of non-infectious active cases were discovered, it should be fairly simple to organise some kind of treatment and observation centre for such individuals.

Owing to the favourable situation of Barbados, its equable climate and its general economic standard, one can confidently conclude that in the course of the next few decades leprosy should have been eliminated from the island.