

## LEPROSY AND ANTILEPROSY ACTIVITIES IN INDONESIA

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To carry on the work in connection with leprosy in Indonesia there have now been created two departments of the Ministry of Health, namely, (1) The Central Institute for Leprosy Research (Lembaga Pusat Penyelidikan Penyakit Kusta) at Djakarta; and (2) the Service of the Antileprosy Campaign (Djawatan Pemberantasan Penyakit Kusta), which before the war was located at Semarang and afterwards was temporarily merged with the Central Institute.

### LEMBAGA PUSAT PENJELIDIKAN PENJAKIT KUSTA

The functions of the Central Institute in Djakarta are: (a) research in leprosy, (b) the training of doctors, nurses attendants and propagandists, (c) the teaching of leprology to medical students, and (d) arranging for the sending of doctors abroad.

Because of the shortage of doctors in Indonesia, the personnel of the Institute now consists of only one physician-leprologist, assisted by several attendants. Before the war there were three physicians there.

The facilities of the Institute are: (a) a clinic with accommodations for 30 patients under experimental observation; (b) a laboratory with complete equipment, previously headed by a bacteriologist-doctor, a position which has been vacant for eight years; (c) an outpatient clinic, open twice a week, with 150 patients attending; (d) administrative, social and propaganda departments; (e) eight outpatient clinics in other parts of Djakarta, also open twice a week, attended by a male nurse under the supervision of the physician of the Institute; and (f) the Lenteng-Agung leprosarium, located 23 kilometers from Djakarta, with 200 patients in the charge of a head attendant and visited once a week by the Institute physician.

The eight outpatient clinics mentioned are centers for epidemiological research, for visits to the campongs for the investigation of the families of the patients and the administration of medical treatment to patients at home who are unable to walk,

and for the guidance of the people in the campongs and propaganda among them.

Temporarily, the supply and distribution of sulfone drugs is carried on by the Institute. Diasone and promin were used for the first time in the middle of 1948, for ward patients of the Institute and those of Lenteng-Agung leprosarium. Since the beginning of 1949 these drugs have also been used experimentally in the cities and leprosy hospitals outside Djakarta, throughout Indonesia.

#### DJAWATAN PEMBERNANTASAN PENJAKIT KUSTA

The functions of this antileprosy service are: (a) preparation of legislation with respect to the control of leprosy; (b) development of suitable measures for the work in the provinces; (c) control of the isolation of cases; (d) supply and distribution of standard chaulmoogra medicines and new preparations for experiments; (e) social work and propaganda; and (f) organization of leprosy conferences, intra-Indonesian and international.

This service is to be reorganized, with its seat at Djakarta, although because of the shortage of doctors it is temporarily united with the Institute. Provincial branches of the service will be established throughout the country as staff becomes available. In the middle of 1949 an office was set up at Semarang for leprosy control work in Middle Java, with two doctors. This office operates outpatient clinics at Semarang (77 patients in attendance) and at Kudus, and has supervision of the two leprosy hospitals of Middle Java, Plantungan and Kelet, the former of which has 115 patients, the latter 73.

#### GENERAL DATA FOR INDONESIA

The total number of known cases of leprosy in Indonesia is roughly 22,000, distributed as shown in Table 1. On the basis of the known prevalence for Djakarta city, where there are 1,500 cases in a population of 1,500,000, or 1 per 1,000, it is estimated that the total number in the country is on the order of 75,000.

The principal foci are the cities of Djakarta and Semarang, and the Blora, Lamongan, Sourabaya, Bangkalan, Kediri-Ngandjuk, Bali, Makassar, Minahessa and Ambon districts. The geographical regions which appear to be preferred by leprosy are coastal areas and limestone mountains (e.g., Rembang, Bodjonegoro, Lamongan and Madura).

TABLE 1.—*Distribution of known cases in Indonesia, and numbers of cases isolated in leprosaria.*

Area (Province or equivalent)	Population	Number of known cases	Number in isolation
Djakarta city	1,500,000	1,500	250
West Java	50,000,000	1,000	None
Middle Java		1,600	200
East Java		5,900	None
North Sumatra	10,000,000	2,700	1,000
Middle Sumatra		250	None
South Sumatra		300	100
Borneo	3,500,000	600	240
Celebes	7,000,000	3,500	1,275
Moluccas	1,500,000	1,150	200
Sunda Islands/ <sup>a</sup>	1,500,000	3,500	470
Total	75,000,000	22,000	3,735

<sup>a</sup> Including Bali, Timor and Lombok.

There are now 40 leprosy hospitals in Indonesia—as against 44 before the war—with a total of 3,735 patients. The distribution of these institutions is as follows: West Java (Djakarta city), 1; Middle Java, 2; North Sumatra, 9; South Sumatra, 1; West Borneo, 1; East Borneo, 2; South Borneo, 1; Celebes (all in South Celebes except one at Menado, in the far north-east), 9; the Moluccas, 4; and the Sunda Islands, 10, of which 7 are in Bali and one each in Timor, Lombok and Sumbawa.<sup>1</sup>

How leprosy spread in this region cannot be said with certainty, but it would seem likely that it passed from Java to Bali, and thence to Ambon and other places of that region. There seems to have been an increase of cases since the war. In Djakarta city 30 per cent of the cases are lepromatous, 50 per cent tuberculoid, and 20 per cent indeterminate. Information on this point with respect to the other areas is not available.

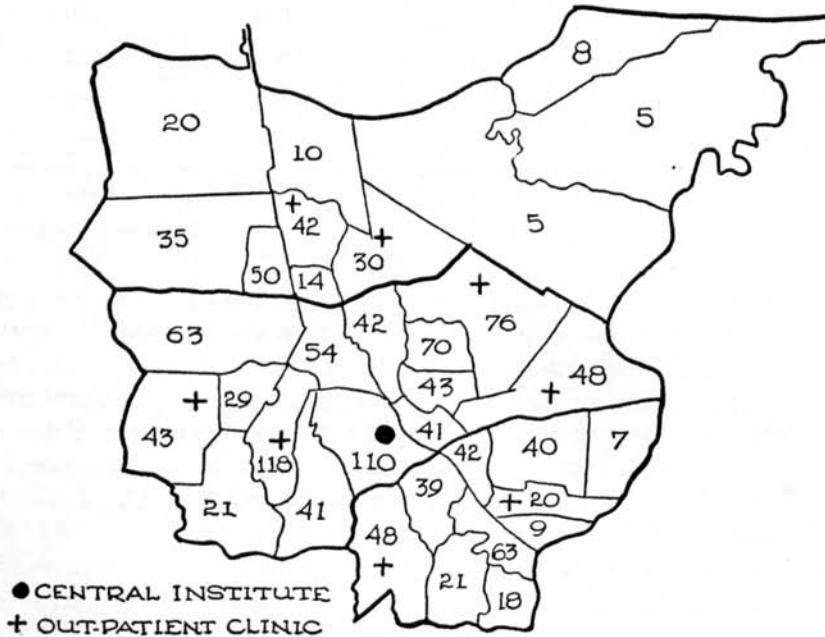
For the leprosy work in the whole country, only three doctors remain of the 13 engaged in it before the war, one of them located at Djakarta and two at Semarang. Elsewhere such

<sup>1</sup> A detailed tabulation of these institutions appeared in THE JOURNAL 19 (1951) 83.—EDITOR.

service and treatment as are given to the leprosy patients are rendered by nonspecialist physicians who are assigned to this duty by the inspector of public health in addition to their other duties.

#### DATA FOR DJAKARTA CITY

In the city of Djakarta, with 1,500,000 people, 1,325 cases were registered at the end of 1949, distributed as shown in Text-fig. 1, and a year later there were 1,500, giving a prevalence of 1 per 1,000. Of this number, 250 patients are under care at the Central Institute—its location indicated by a circle in the map referred to—and in the Lenteng-Agung leprosarium. The campongs in which are located the eight outpatient clinics, other than the one at the Institute, are indicated by crosses in the map.



TEXT-FIG. 1. Outline map of Djakarta city, showing the numbers of known cases in each district at the end of 1949. The circle indicates the location of the Central Institute, the crosses the campongs in which the eight outpatient clinics are located.

The distribution by age and sex of the 1,325 cases registered in Djakarta city at the end of 1949 is shown in Table 2. It will be seen there that 363, or 27.4 per cent, are under 15 years of age, while the largest age group was 20-29 years; also that practically 60 per cent are males, the male:female ratio being 1.5:1.

TABLE 2.—*Age and sex of the known cases in Djakarta city in 1949.*

Age	Males	Females	Total
0 - 4 years	7	2	9
5 - 9 years	50	57	107
10 - 14 years	133	114	247
15 - 19 years	116	61	177
20 - 29 years	187	96	283
30 - 39 years	131	69	200
40 - 49 years	80	57	137
50 - 59 years	55	54	109
60 - + years	33	23	56
Total	792	533	1,325

The distribution of the known cases in Djakarta city in 1949 with respect to nationality is as follows: Indonesia, 1,125; Chinese, 134; European, 45; Arabian, 20; and 1 other. The data on type distribution show that the percentages of lepromatous cases in these different groups are: Indonesians, 32.7; Chinese, 37.3; European, 44.5; and others, 38.1. The Europeans would seem to tend slightly more than the others to the more serious form of the disease.

In the two institutions in Djakarta where patients are hospitalized, a total of 238 were treated during 1949. Males numbered 196, and females only 42—evidencing a reluctance of the latter to submit to hospitalization. There were in the hospitals only 13 children under the age of 14—again a marked disproportion. Indonesians constituted 75 per cent, Chinese 18 per cent, and Europeans 6.7 per cent. These last two figures are somewhat higher than the proportions of those races among all cases.

In the outpatient clinics in Djakarta a total of 673 cases, 410 of them old and 263 new, were treated during that year. The total number of consultations was 13,547, and, since these clinics are open twice a week, the average number of patients appearing at each clinic each day is about 17.

#### COMMENT

It will be seen that there exists in Indonesia a leprosy problem of some magnitude, and that largely because of the shortage of

physicians in the country the present status of the antileprosy campaign is decidedly unsatisfactory. Whereas only three doctors are now engaged in this work, at least ten specialists are needed. If three were placed in the three provinces of Java, three in the affected areas of Sumatra, and one each in Borneo, Celebes, Moluccas and the Sunda Islands, each with a full complement of assistants, they would find plenty of work to be done. Another problem that should be faced is that of social welfare of leprosy patients and their families, a matter in which on the whole little interest is shown by the community with the consequence that the isolation of patients is made difficult.

A possibility that should be explored is whether or not physicians interested in leprosy could be invited to come to Indonesia to work. In any event, it is believed that it would be mutually advantageous if there could be established a system of exchange of leprosy specialists with other countries, say for one-year periods. There would be mutual broadening of outlook, and Indonesia would benefit in that its work could be better adapted to that of other countries.

#### RESÚMEN

El autor hace notar que existe en Indonesia un problema de alguna magnitud en lo concerniente a la lepra. La escasez de médicos hace que la campaña anti-leprosa sea verdaderamente poco satisfactoria. Sólomente hay tres especialistas dedicados a ésta labor, cuando se necesitan al menos diez. Otro problema que se debe afrontar es el del bienestar social del paciente leproso y sus familiares. Una posibilidad que se debe explorar es la de médicos extranjeros interesados en lepra que podrían venir al país a estudiar la enfermedad, por períodos de uno o más años, por ejemplo. Esto serviría de estímulo para el intercambio de ideas y conocimientos y sería de provecho mutuo.