

## ASIA

Population: 12,000,000

Area: 250,000

## AFGHANISTAN

Lichtwardt (1934) reports that no statistics are available regarding the number of cases in existence, but estimates that there are about 0.5 per 1,000. In thirteen years of practice near the Afghan border he examined nearly 200 leprous patients and found only one to be a native of the country. The others were from the Berberi tribes, roving nomads of Mongolian extraction. "A corresponding racial distinction is noted in Persia, where we find lepers only among these same Berberis from Afghanistan and Turks from the western provinces of Persia . . . It is evident that these Berberi lepers are found throughout the country, but as yet the Afghan government is doing nothing to eradicate the disease or even to treat the cases." Patients are housed in the local leprosarium at Meshed, and on arrival are usually in advanced stages of the disease. "In the majority of the cases the *Mycobacterium leprae* can be demonstrated, and in at least two-thirds there is both neural and cutaneous involvement."

LICHTWARDT, H. A.

1934. Leprosy in Afghanistan. *Internat. J. Leprosy*, 2, 75-76.

Population: 10,000,000

Area: 1,000,000

## ARABIAN PENINSULA

Storm (1937) states that a few cases may be found in any section of Arabia, but it is only in the southern end of the peninsula that the disease is a problem. There is a definite focus around Taiz in YEMEN. Storm's attention was drawn to villages with six or seven victims in a single family. The problem of ADEN PROTECTORATE is similar to that of YEMEN; HADHRAMAUT follows in importance. In OMAN, from 25 to 30 cases were seen, and at the city of Dhufar 21 cases were found.

Muir (1939) states that the extent of prevalence in ADEN PROTECTORATE is not known, but some patients from that area are under treatment in the Sheikh Othman Leper Hospital in Aden. In 1938 this hospital had 29 patients, most of them from YEMEN. Only one case has been reported in Aden Colony in recent years.

MUIR, E.

1939. Aden Colony and Protectorate. *Leprosy Rev.*, 10, 85-88.

STORM, W. H.

1937. Leper survey of the Arabian Peninsula. *Leprosy Rev.*, 8, 5-11.

Population: 14,667,146

Area: 261,610

## BURMA

A League of Nations Report (1937) states that selected areas surveyed in 1932 showed a prevalence of 16 per 1,000. These areas are not to be considered representative of the whole of Burma, but the findings suggest that the disease may be more frequent than has been thought.

Buker (1940) reports extremely high prevalence rates in sample surveys including a total of about 10,000 persons made in the Kengtung Shan State, Upper

Burma: Lahu villages, 142 per 1,000; Kachin villages, 83 per 1,000; Shan villages, 36 per 1,000; and Kaw villages, 33 per 1,000. There were nine colonies in which more than 900 patients were receiving treatment at that time.

BUKER, R. S.

1940. Leper colonization of Kengtung State, Burma. *Internat. J. Leprosy*, 8, 167-178.

LEAGUE OF NATIONS REPORT.

1937. League of Nations Publications: Health organization, intergovernmental conference of Far-Eastern countries on rural hygiene. Report by the preparatory committee. Ser. L. o. N. P., III, 3.

Population: 5,312,548

Area: 25,332

## CEYLON

Simmons *et al* (1944) state that 2,519 cases on the island were known to the authorities at the end of 1938. Government hospitals were giving treatment to 1,329, and 76 died of the disease in 1938.

DeSimon (1934) reports that the total number of known cases was 1,489 in 1933. There were 796 patients in segregation at the two asylums; Hendala Asylum, near Colombo, was probably founded by the Dutch at the beginning of the eighteenth century, and Manhivu Asylum, on an island near Batticaloa, was founded in 1921. There were 246 discharged on parole as bacteriologically negative, 107 at large as absconders, and 340 in home isolation. If to the total figure of 1,489 is added 746 deaths which occurred in the two institutions from 1922 to 1923, there was a total of 2,235 cases during that decade. For patients in segregation the disease was neural in type in 777 and cutaneous in 372, the ratio being 2 neural to 1 cutaneous. The number of cases and rate per 1,000 by provinces were as follows:

Province	Population	No. of Cases	Rate per 1,000
Western .....	1,445,000	691	0.48
Southern .....	771,200	208	0.27
Central .....	953,400	110	0.11
North-Central .....	94,400	16	0.15
Uva .....	303,200	63	0.20
Northern .....	398,900	67	0.17
North-Western .....	547,000	34	0.06
Sabaragamuwa .....	578,400	128	0.22
Eastern .....	212,400	164	0.77
No fixed residence .....	—	8	—
<b>TOTAL.....</b>	<b>5,303,900</b>	<b>1,489</b>	<b>0.28</b>

Cochrane (1934) states that only the more advanced cases are discovered. From surveys which he made in two of the most populous districts, Kalmunai and Batticaloa, he concludes that leprosy is probably no longer a serious menace in the Eastern Province. In Colombo 13,700 children were examined and showed a prevalence of just under 3 per 1,000.

COCHRANE, R. G.

1934. Leprosy in India and Ceylon. *Leprosy Rev.*, 5, 64-72.

DESIMON, D. S.

1934. The leprosy survey of Ceylon, 1933. Sessional Paper II, Ceylon Gov't. Press, p. 24-32.

SIMMONS, J. S. *et al.*

1944. *Global Epidemiology*. J. B. Lippincott Co. Philadelphia, ed. 1, p. 27.

## CHINA

## GENERAL

Population: 457,835,475

Area: 4,314,097

Maxwell (1938) states that leprosy is widely distributed throughout China. The total number of cases is very large, and an estimate of 1,000,000 is probably conservative. The highest prevalence is in the provinces of KWANGTUNG, YUNNAN, KWEICHOW, and probably KWANGSI, and over the greater part of SHANTUNG and northern KIANGSU. It is also present as a heavy infection in western SZECHWAN and KANSU. The disease is less prevalent, but still common, in FUKIEN, HUNAN, KIANGSI, and southern SHENSI. It is scattered over CHEKIANG, ANHWEI, and HUPEH. Only three of the provinces, HOPEI, SHANSI, and HONAN, are comparatively free from the disease.

It is impossible to give more than a very rough estimate of the prevalence rates for any of the provinces. Maxwell suggests a provisional figure of 1 per 1,000 in those least affected, 2 per 1,000 in those where the disease is widespread, and from 5 to 10 per 1,000 in the provinces with heavy areas of infection.

For orientation, the provinces of China (for which we have information) may be divided into four zones: In the northeast are the provinces of ANHWEI, HONAN, HOPEI, HUPEH, KIANGSU, SHANSI, and SHANTUNG; in the southeast are CHEKIANG, FUKIEN, HUNAN, KIANGSI, and KWANGTUNG; in the northwest are KANSU, SHENSI, and SINKIANG; in the southwest are KWANGSI, KWEICHOW, SIKANG, SZECHWAN, and YUNNAN.

MAXWELL, J. L.

1938. The public health problem of leprosy and its solution. *China Year Book. Leper Quart.*, 1938, 12, 156-160.

## ANHWEI PROVINCE

Population: 22,704,538

Area: 54,319

Fowler (1925) states that with one exception, no foci of leprosy are to be found in this province. The exception is the county of Hwai Yuan, where the disease is common and probably endemic.

FOWLER, H.

1925. A survey of leprosy in China. *China M. J.*, 39, 584.

## CHEKIANG PROVINCE

Population: 21,776,045

Area: 40,169

Maxwell (1938) states that the disease is scattered throughout the province. No figures are given.

An earlier report by Fowler (1925) indicates uncertainty as to origin of the disease here. It may have been imported from the provinces of FUKIEN and KIANGSU.

FOWLER, H.

1925. A survey of leprosy in China. *China M. J.*, 39, 584.

MAXWELL, J. L.

1938. The public health problem of leprosy and its solution. *China Year Book. Leper Quart.*, 1938, 12, 156-160.

## CHINA

*Population:* 11,990,441

## FUKIEN PROVINCE

*Area:* 45,845

FUKIEN is one of the heavily infected areas of China. According to Fowler (1925) "... the disease extends through many districts, but no reliable estimates as to actual numbers are possible."

Ching, in a News Item in the *Leper Quarterly* (1940) states that there are at least several hundred cases in the eastern district of the city of Foochow.

CHING, K. Y.

1940. News Item. *Leper Quart.*, 14, 35.

FOWLER, H.

1925. A survey of leprosy in China. *China M. J.*, 39, 584.

## HONAN PROVINCE

*Population:* 31,805,621*Area:* 62,699

Reports are not in agreement. Fowler (1925) states that the disease is prevalent in certain districts, although it is practically unknown in wide areas toward the center and western parts of the province. In a more recent report, Maxwell (1938) regards the province as free from endemic leprosy.

FOWLER, H.

1925. A survey of leprosy in China. *China M. J.*, 39, 584.

MAXWELL, J. L.

1938. The public health problem of leprosy and its solution. *China Year Book. Leper Quart.*, 1938, 12, 156-160.

## HOPEI PROVINCE

*Population:* 28,644,437*Area:* 54,154

Frazier (1943) states that during twenty years when he was a member of the staff of Peiping Union Medical College, only one case of leprosy was observed which had been contracted definitely in HOPEI Province.

FRAZIER, C. N.

1943. Leprosy. Epidemiology, and natural history. *J. A. M. A.*, 123, 466-468.

## HUNAN PROVINCE

*Population:* 27,186,730*Area:* 79,379

According to Fowler (1925) leprosy is quite frequent in HUNAN, especially in the south toward KWANGTUNG, from which province many of the infected are said to have migrated.

FOWLER, H.

1925. A survey of leprosy in China. *China M. J.*, 39, 584.

## HUPEH PROVINCE

*Population:* 24,658,988*Area:* 71,955

Fowler (1925) states: "The districts lying immediately about the rivers and numerous lakes of HUPEH have widely scattered foci of leprosy; such districts

## CHINA

embrace the counties of Siao Kaun, Yung Meng, Mien Yang, Wuchang and Hwangchow."

Most of the cases in central China originate from within a radius of some 60 miles around Hankow.

FOWLER, H.

1925. A survey of leprosy in China. *China M. J.*, **39**, 584.

---

*Population: 6,255,467*

*Area: 151,160*

### KANSU PROVINCE

Maxwell (1938) states that conclusive evidence exists of a band of heavy leprosy prevalence near the KANSU-TIBETAN frontier.

Pearce (1939) reports that 217 patients were treated during the past 15 years at the China Inland Mission Hospital in Lanchow. Most of them came from the Tibetan border.

An older report by Fowler (1925) states that leprosy exists among the Mohammedans in eastern KANSU. It is said to be fairly common on the plain measuring some 100 miles by 30, with the center at Hanchung in the southwest part of SHENSI.

FOWLER, H.

1925. A survey of leprosy in China. *China M. J.*, **39**, 584.

MAXWELL, J. L.

1938. Leprosy and climate in China. Correspondence to the Editor, *Internat. J. Leprosy*, **6**, 102.

PEARCE, R.

1939. The distribution of leprosy in northwest China. *Leprosy Rev.*, **10**, 201-206.

---

*Population: 13,794,159*

*Area: 66,830*

### KIANGSI PROVINCE

Maxwell (1938) considers leprosy to be quite prevalent here. An older report by Fowler (1925) states that the disease is confined to two well-defined areas, namely around the cities of Jaochow and Nanchang.

FOWLER, H.

1925. A survey of leprosy in China. *China M. J.*, **39**, 584.

MAXWELL, J. L.

1938. The public health problem of leprosy and its solution. *China Year Book. Leper Quart.*, 1938, **12**, 156-160.

---

*Population: 36,469,321*

*Area: 42,056*

### KIANGSU PROVINCE

Maxwell (1937) states that there are a large number of cases in northern KIANGSU and on into the eastern part of SHANTUNG. Parts of this area are the most heavily infected regions in China.

A News Item in the *Leprosy Quarterly* (1940) reports that before the outbreak of hostilities with Japan, there were estimated to be at least 2,000 cases in Shanghai. Of these, according to an Official Shanghai Report (1941) only 116 were in the National Leprosarium of Shanghai in 1939.

## CHINA

Huizenga (1937) states that 697 cases have been accepted in four years at the Jukao Leper Clinic. The surrounding district is one of six recognized leprosy areas of China.

HUIZENGA, L. S.

1937. An ancient and still baffling disease. Report of the Jukao Leper Clinic for 1936. *Leper Quart.*, **11**, 30-38. Abstract in *Internat. J. Leprosy*, 1937, **5**, 537.

MAXWELL, J. L.

1937. Correspondence to the Editor. *Internat. J. Leprosy*, **5**, 95-96.

NEWS ITEM.

1940. *Leper Quart.*, **14**, 168.

OFFICIAL SHANGHAI REPORT.

1941. The annual report of the National Leprosarium of Shanghai for 1940. *Leper Quart.*, **15**, 39-40.

Population: 14,254,609

Area: 84,526

## KWANGSI PROVINCE

Maxwell (1938) considers this province to be one of the areas of high prevalence. He quotes no figures.

MAXWELL, J. L.

1938. The public health problem of leprosy and its solution. *China Year Book. Leper Quart.*, 1938, **12**, 156-160.

Population: 32,338,795

Area: 85,447

## KWANGTUNG PROVINCE

Hueck (1935) states that this is certainly the most infected of all provinces in China. Although the number of cases is difficult to estimate, he cites a "conservative" estimate by Maxwell that there are 200,000. In the public dispensary of Tungfiner hospital, from 70 to 80 cases are found each year among 5,000 patients examined.

Everham (1941) estimates that there are from 10,000 to 20,000 cases in the region of the city of Swatow. At a clinic near Kityang there was a weekly attendance of from 70 to 100 patients.

Sweeney (1941) reports 400 patients segregated at the Gates of Heaven Leprosarium (Ngai Moon).

An Official Hongkong Report (1944) states that the patients residing in the leprosarium at Hongkong numbered 226 in 1940 as compared with 175 in 1939.

Rai (1941) reports that he found 84 cases among 52,000 persons examined in the city of Canton. This would represent a prevalence of 1.6 per 1,000. Those examined belonged to four groups: Those living in boats; passengers in river boats; people found in the streets; and villagers.

EVERHAM, M.

1941. A short history of Kityang Free Leper Clinic. *Leper Quart.*, **15**, 70-73.

HUECK, O.

1935. Über Lepra-Behandlung in der Canton-Provinz. *Arch. f. Schiffs- u. Tropen-Hyg.*, **39**, 464-474.

OFFICIAL HONGKONG REPORT.

1944. Report of the Director of Medical Services, Hongkong, 1941. Abstract in *Leprosy Rev.*, **15**, 47.

RAI, S.

1941. Leprosy in Canton. A survey. *J. M. A. Formosa*, **40**, 1133-1163. Abstract in *Internat. J. Leprosy*, 1942, **10**, 160.

SWEENEY, J. A.

1941. Personal communication to Perry Burgess



## CHINA

Population: 10,487,367

## KWEICHOW PROVINCE

Area: 69,296

According to Maxwell (1938) leprosy is common in this province. An older report by Fowler (1925) agrees in general and adds that the disease seems to be endemic among the Miao tribes.

FOWLER, H.

1925. A survey of leprosy in China. *China M. J.*, 39, 584.

MAXWELL, J. L.

1938. The public health problem of leprosy and its solution. *China Year Book. Leper Quart.*, 1938, 12, 156-160.

Population: 11,601,026

## SHANSI PROVINCE

Area: 60,394

Maxwell (1938) reports this province to be free from the disease.

MAXWELL, J. L.

1938. The public health problem of leprosy and its solution. *China Year Book. Leper Quart.*, 1938, 12, 156-160.

Population: 38,099,741

## SHANTUNG PROVINCE

Area: 56,399

Maxwell (1937) states that the "leprosy area" is especially heavy in the eastern side of this province. There is some leprosy in the center also, but apparently not west or north of the Yellow River.

Wu (1941) cites Dr. Chi Chang-chun's report that the largest number of cases coming to the Tsinan Leprosarium are from Taian, Lincheng, Tsinan, and Pingtu districts. At this leprosarium 517 patients were treated during the last 15 years.

MAXWELL, J. L.

1937. Correspondence to the Editor. *Internat. J. Leprosy*, 5, 95-96.

WU, T. C.

1941. Combating leprosy in Shantung. *Leper Quart.*, 15, 55-61.

Population: 9,799,617

## SHENSI PROVINCE

Area: 72,359

Kwan (1940) states that in Hanchung there were at least 3,400 advanced cases in 1939. The population of this district at that time was 1,523,450, making a rate of 2 per 1,000, or at least one patient in every 100 families.

McIntosh in a News Item in the *Leper Quarterly* (1940) states that leprosy is very common in the city area of SHENSI, but much more so in some of the outlying districts and villages.

Crawford (1944) reports that the majority of cases appear to be in the two counties of Mien and Yang, bordering on SZECHWAN.

CRAWFORD, W.

1944. Personal communication to the Acting Editor.

KWAN, L. T.

1940. Leprosy in Shensi. A survey of leprosy in the district of Hanchung. *Leper Quart.*, 14, 147.

MCINTOSH, N. N.

1940. News Item. *Leper Quart.*, 14, 166.

## CHINA

*Population:* 1,755,542

## SIKANG PROVINCE

*Area:* 166,856

Crawford (1944) states that the area formerly known as Ch'wan Bien, to the west of SZECHWAN, was established as a province under a Governor in 1938.

In 1942 thirteen heavily infected counties were taken from the southwest corner of SZECHWAN and added to SIKANG. In the northern portion of these counties the disease is probably as prevalent as in the adjacent province of YUNNAN.

Roman Catholic Sisters operate a "hostel" for about 150 inmates. No therapeutic work is done, but a home is made for the patients, and their wounds and skin lesions are treated. No other work is done in the province.

CRAWFORD, W.

1944. Personal communication to the Acting Editor.

## SINKIANG PROVINCE

*Population:* 4,360,020*Area:* 705,952

According to Crawford (1944) this is the newest and the largest province of China and is in the extreme northwest corner. It is very sparsely settled and as far as has been ascertained little leprosy is to be found. Inasmuch as leprosy is found in the Tibetan mountains, however, one would be justified in assuming that there is some in those counties bordering on TIBET.

CRAWFORD, W.

1944. Personal communication to the Acting Editor.

## SZECHWAN PROVINCE

*Population:* 46,403,006*Area:* 143,147

Crawford (1944) states that available information indicates the following five endemic centers already discovered in the mountainous areas of SZECHWAN: In the northeast, near the city of Paoning, and adjacent to the counties of Mien and Yang in SHENSI; in the southeast, in the city of P'eng Hsui; in the Nosu and Lolo counties in the southwest, adjoining KWEICHOW and YUNNAN; on the western border, contiguous to YUNNAN and SIKANG; and a small endemic center near Sung P'an in the northwest.

Maxwell (1937) reports that the great rice-growing plain of SZECHWAN is apparently free from leprosy, but the disease becomes very prevalent toward the mountainous western border near TIBET.

CRAWFORD, W.

1944. Personal communication to the Acting Editor.

MAXWELL, J. L.

1937. Correspondence to the Editor. *Internat. J. Leprosy*, 5, 95-96.

## YUNNAN PROVINCE

*Population:* 10,853,359*Area:* 155,861

A News Item in the *Leper Quarterly* (1939) reports that the YUNNAN Provincial Government singled out leprosy as one of its four major problems, which indicates a high prevalence of the disease. A partially completed survey revealed 6,384 cases.

Etter (1944) states that the prevalence of leprosy in YUNNAN is thought to be less than in KWANGSI and KWANGTUNG. The number of infected persons



## CHINA

has been increased by migration into the climatically favorable and relatively secluded areas of YUNNAN. Furthermore, the number of possible contacts has been increased by the influx of millions of refugees. The author recommends isolation of patients to "... remove them from the inns and tea houses where the armed forces of the United Nations would be very likely to contact them."

Maxwell (1938) states that leprosy in this province, especially in the western section, is notorious.

ETTER, H. C.

1944. Personal communication to Perry Burgess.

MAXWELL, J. L.

1938. Correspondence to the Editor. *Internat. J. Leprosy*, 6, 102.

NEWS ITEM.

1939. *Leper Quart.*, 13, 84.

Population: 39,454,026

Area: 503,013

## MANCHURIA (Manchukuo)

Leprosy is not indigenous but nevertheless it has become a serious problem in Manchukuo because of immigration from endemic areas. Fowler (1925) notes that endemic foci appear to be absent.

Taylor and Yü (1931) state that for many years, especially since 1910 Chinese, Japanese, and Koreans, have been carrying leprosy into the eastern provinces of JEHOI, FENGTIEN, and KIRIN. "Of these, the Chinese, by reason of their large numbers from the province of SHANTUNG, are by far the most important factor." A partial survey of the situation has failed to find a single case which can be called truly indigenous, although a small area near the Korean border is said to contain indigenous leprosy. The neural type of the disease is most often seen in Manchukuo. At the Moukden Mission Hospital, 29 cases were found between 1923 and 1931, 6 of these being seen in 1931 among 858 patients. Between 1914 and 1930, 554 cases were seen at the skin diseases clinics, according to a South Manchurian Railway Annual Report of 25 hospitals.

FOWLER, H.

1925. A survey of leprosy in China. *China M. J.*, 39, 584.

Yü, K. Y. and TAYLOR, H. W. Y.

1931. Notes on leprosy in the three eastern provinces. *China M. J.*, 45, 855-867.

Population: 750,000

Area: 469,416

## TIBET

Information is lacking excepting for the eastern border.

Pearce (1939) relates that he has personally seen 20 cases among a population of sedentary Tibetans, living in the valleys between Shunhwa and Tongren districts.

Maxwell (1938) states that there is evidence of a band of heavy leprosy prevalence on the TIBETAN-KANSU frontier.

MAXWELL, J. L.

1938. Leprosy and climate in China. Correspondence to the Editor, *Internat. J. Leprosy*, 6, 102.

PEARCE, R.

1939. The distribution of leprosy in northwest China. *Leprosy Rev.*, 10, 201.

## FRENCH INDIA

Population: 323,500

Area: 196

According to Sorel (1938) the number of leprosy cases known in the five cities of Pondichéry, Karikal, Chandernagor, Mahé, and Yanaon was 1,534, a prevalence rate of 5 per 1,000. Pondichéry had 80 per cent of the known cases.

SOREL, F. P. J.

1938. Prophylaxie de la lèpre dans les colonies Françaises. Bull. Office internat. d'hyg. pub. (suppl. to no. 6), pt. 1, 30, 1-21.

## INDIA

Population: 388,997,955

GENERAL

Area: 1,581,410

The Board of Health Report (1942) states that the total number of cases of leprosy in India is probably eight times the number reported in the 1931 census (150,000), or a total of perhaps 1,200,000. It is emphasized that at any one time, only about one quarter of the cases are infectious, another quarter potentially infectious, and that many of the cases are exceedingly slight. There is a belt of high prevalence along the eastern coast extending into the southern part of the peninsula. This includes western BENGAL, southern BIHAR, ORISSA, MADRAS, and TRAVANCORE. In central India, the rates tend to be lower, but there are some foci of higher prevalence. There is a belt of moderate infection in the Himalayan foothills, but there is very little leprosy in most of northwestern India.

BOARD OF HEALTH REPORT, GOVERNMENT OF INDIA.

1942. Report on leprosy and its control in India. By the committee appointed by the Central Advisory Board of Health (1941). Printed by the manager, Government of India Press, New Delhi.

## ASSAM PROVINCE

Population: 10,929,388

Area: 67,359

According to a News Item in the JOURNAL (1935) the Public Health Department carried on surveys in 1933 in several districts of ASSAM, and 1,314 cases were found and brought under treatment. The leprosy work of the department was started in 1932 and by the end of 1933, 2,439 cases had been treated.

Santra (1941) states that among 11,000 persons of different groups examined in various parts of the province, the prevalence of leprosy was 17.7 per 1,000.

NEWS ITEM.

1935. Work in Assam. Internat. J. Leprosy, 3, 503.

SANTRA, I.

1941. Report on epidemiological observations on leprosy in Assam made by Dr. I. Santra. Leprosy in India, 13, 143-144.

## INDIA

Population: 62,451,354

## BENGAL PROVINCE

Area: 86,850

A report of the Bengal Branch of B.E.L.R.A. (1935) states that sample surveys have been carried out since 1930. These have shown leprosy to be prevalent in every district and in some areas the rate was as high as 70 per 1,000. The rate appears to be about 10 per 1,000 for the entire province. More than 78 per cent of 150 villages of the unions of Bankura, Raipur, and Simlatal were infected, and one in every six families harbored cases. The Mohammedans had the highest rate.

Lowe *et al* (1941) state that the 1941 government census in the Bankura district of BENGAL found 422 cases in a population of 10,240, a prevalence of 40 per 1,000.

Lowe and Santra (1940) report the results of a survey in Santalpur; 3,600 from a population of 3,900 were carefully examined and 268 cases were found, a rate of 74 per 1,000.

A News Item in the JOURNAL (1940) reports that sample surveys carried out in BENGAL in 1938 showed the Diamond Harbour area in the Parganas District to be most heavily infected. This section had a prevalence of 32 per 1,000. There were 134 clinics in operation.

## BENGAL BRANCH OF THE B. E. L. R. A.

1935. Annual report for 1934 of the Bengal branch of the British Empire Leprosy Relief Association. *Leprosy in India*, April, 7. *Leprosy Rev.*, 1935, 6, 193-197.

LOWE, J. *et al.*

1941. Epidemiological and clinical studies of leprosy in the Bankura district of Bengal. *Leprosy in India*, 13, 127-134.

## LOWE, J. and SANTRA, I.

1940. An epidemiological study of leprosy with special reference to the leprosy survey in Santalpur (North Bengal). *Leprosy in India*, 12, 43-53.

## NEWS ITEM.

1940. Clinics in Bengal. *Internat. J. Leprosy*, 8, 233-234.

## BIHAR PROVINCE

Population: 36,340,151

Area: 69,745

The Board of Health Report (1942) indicates that prevalence is high, especially in the southern districts, where it is over 7.5 per 1,000.

Sharpe (1937) reports an increase of the number of patients at the Purulia Hospital, from 733, in 1918 to 878 in 1937; counting outpatients, there were 1,500 under treatment in 1935.

## BOARD OF HEALTH REPORT, GOVERNMENT OF INDIA.

1942. Report on leprosy and its control in India. By the Committee appointed by the Central Advisory Board of Health (1941). Printed by the manager, Government of India Press, New Delhi.

## SHARPE, E. B.

1937. Personal communication to Perry Burgess.

## INDIA

Population: 20,849,840

## BOMBAY PRESIDENCY

Area: 76,443

The Board of Health Report (1942) indicates a low prevalence in the northern districts. The rate was from 1 to 3.5 per 1,000 in the central and southern districts, except around Bombay where it was 3.5 to 7.5 per 1,000.

A News Item in the JOURNAL (1935) states that the Acworth Asylum at Matunga near Bombay City had 364 inmates and was seriously overcrowded.

## BOARD OF HEALTH REPORT, GOVERNMENT OF INDIA.

1942. Report on leprosy and its control in India. By the committee appointed by the Central Advisory Board of Health (1941). Printed by the manager, Government of India Press, New Delhi.

## NEWS ITEM.

1935. Agitation in Bombay. *Internat. J. Leprosy*, 3, 504.

## CENTRAL PROVINCES

Population: 16,813,584

Area: 98,575

The Board of Health Report (1942) indicates an average prevalence of from 1 to 3.5 per 1,000. In 1937 a total of 1,438 patients were known, 600 being in the Chandkuri leprosarium, according to the Leonard Wood Memorial file on leprosaria.

## BOARD OF HEALTH REPORT, GOVERNMENT OF INDIA.

1942. Report on leprosy and its control in India. By the committee appointed by the Central Advisory Board of Health (1941). Printed by the manager, Government of India Press, New Delhi.

## HYDERABAD STATE

Population: 16,338,534

Area: 82,313

The Board of Health Report (1942) indicates a prevalence varying from 1 to 7.5 per 1,000, highest in the southeastern section.

Lowe (1933) makes a rough estimate that the prevalence for the whole province was 5 per 1,000.

The Zaheerabad Treatment Center Report (1941) notes that 162 cases were discovered in surveys of 27 villages with a total population of 27,000, a prevalence of 6 per 1,000.

The Annual Report (1941) of the Dichpali Leprosy Hospital for 1939-1940 states that there were 1,452 patients under treatment.

## ANNUAL REPORT, DICHPALI.

1941. Annual report of the Dichpali Leprosy Hospital for the year 1939-1940. *Leprosy in India*, 13, 63.

## ANNUAL REPORT, ZAHEERABAD.

1941. Second annual report of the leprosy investigation and treatment center, Zaheerabad, N. S. R. *Leprosy in India*, 13, 66-67.

## BOARD OF HEALTH REPORT, GOVERNMENT OF INDIA.

1942. Report on leprosy and its control in India. By the committee appointed by the Central Advisory Board of Health (1941). Printed by the manager, Government of India Press, New Delhi.

## LOWE, J.

1933. Epidemiology of leprosy in Hyderabad (Deccan), India. *Internat. J. Leprosy*, 1, 17-30.

## INDIA

Population: 49,840,564

## MADRAS PRESIDENCY

Area: 127,768

Joseph (1935) states that in 1930 the Presidency was surveyed roughly by the Public Health Department; about 56,000 cases were registered. By 1935, 120,000 cases had been registered at the various clinics. There were 12 leprosaria accommodating 2,100 patients. The largest of these, the Lady Willingdon Leprosy Settlement at Chingleput, has a capacity for 750. In many of the villages, surveys have shown the disease to be very frequent; the Madras Council of B.E.L.R.A. (1941-1942) reports findings of from 11.5 to 41.1 per 1,000.

A News Item in the JOURNAL (1938) states that MADRAS is the most heavily infected part of India and the seat of the greatest antileprosy activity. Two clinics in Madras City treated 1,278 patients in 1937. The patients included cooks, bakers, butlers, food sellers, etc.

## JOSEPH, J. J.

1935. Leprosy work in the Madras Presidency. *Leprosy Rev.*, 6, 108-120.

## MADRAS COUNCIL OF B. E. L. R. A.

1941-1942. Annual Report, B. E. L. R. A., Madras Provincial Council. Arpudha Press, Chingleput.

## NEWS ITEM.

1938. Progress in Madras. *Internat. J. Leprosy*, 6, 113.

## MYSORE STATE

Population: 7,329,140

Area: 29,458

A News Item in the JOURNAL (1937) cites a report in the "Hindu", a Madras publication, that leprosy is not so widespread in this province as in other parts of south India. About 400 cases were known at that time.

## NEWS ITEM.

1937. *Internat. J. Leprosy*, 5, 530.

## ORISSA PROVINCE

Population: 11,752,275

Area: 50,249

The Orissa Provincial Branch of B.E.L.R.A. (1940) reports that 5,699 cases were found from 1939 to 1940 among 822,629 people, a prevalence of 6.9 per 1,000. A total of 13,179 cases were registered in the clinics.

A News Item in the JOURNAL (1940) from the "Madras Mail" cites an estimate of 60,000 cases of leprosy in this province.

## NEWS ITEM.

1940. Training class at Cuttack. *Internat. J. Leprosy*, 8, 379.

## ORISSA PROVINCIAL BRANCH OF B. E. L. R. A.

1940. Annual report of the B. E. L. R. A., Orissa Provincial Branch for 1939-1940. *Leprosy in India*, 12, 106-107.

## INDIA

*Population:* 33,922,373

## PUNJAB PROVINCE

*Area:* 137,235

Jaikaria (1936) reports on findings in his surveys from 1931 to 1934. In the Kangra District 2,983 villages were surveyed, and out of a population of 873,237, 1,005 cases were found. In the Lahore District 372 villages were surveyed, and 22 cases were found out of a population of 393,005. In the Rawalpindi District cases were found in 41 out of 226 villages.

The Punjab Branch of B.E.L.R.A. (1940) reports that in 1938 additional surveys conducted in 3,101 villages, with a population of 1,310,545, resulted in discovery of 456 cases, a prevalence of 0.35 per 1,000.

Malhotra (1941) states that there were 803 known cases in the Kangra District of PUNJAB, in a population of 797,398 (1931 census). This would be a rate of 1 per 1,000, "... a relatively low figure for India, but considerably higher than in other parts of the PUNJAB."

JAIKARIA, S. S.

1936. Anti-leprosy work in the Punjab. *Leprosy Rev.*, 7, 15-17.

MALHOTRA, S. N.

1941. A note on leprosy in the Kangra district of the Punjab. *Leprosy in India*, 13, 48-49.

PUNJAB BRANCH OF B. E. L. R. A.

1940. Annual report of the B. E. L. R. A. Punjab Branch, report for the year 1938. *Leprosy in India*, 12, 70-71.

*Population:* 13,670,208

## RAJPUTANA AGENCY

*Area:* 132,559

The only information is for Jodhpur State, for which Hayward (1940) reports examination of 960,874 persons among whom there were found 888 cases, a prevalence of about 1 per 1,000.

The author considers this figure to be approximately one half the actual prevalence. The purdah system, which prevents women from attending the clinics, handicapped the investigation.

HAYWARD, E. W.

1940. Report on the leprosy survey of Jodhpur State, 1937 to 1939. *Leprosy in India*, 12, 138-146.

*Population:* 6,070,018

## TRAVANCORE PROVINCE

*Area:* 7,662

Santra (1939) states that there were an estimated 35,000 cases, of whom 7,000 were supposed to be in the infectious stage. His estimate yields a prevalence rate of 5.8 per 1,000.

SANTRA, I.

1939. Report on anti-leprosy work in the Travancore State. Printed by the superintendent, Government Press, Trivandrum. *Leprosy in India*, 1940, 12, 36-38.



## INDIA

Population: 55,949,087

## UNITED PROVINCES OF AGRA AND OUDH

Area: 108,007

According to a News Item in the JOURNAL (1939) a census of 1931 revealed 14,485 cases. There are 12 leprosaria, with a total capacity of nearly 1,000. In 1937 only 821 patients were segregated.

Chandy (1941) states that in the 12 districts of OUDH the census of 1931 revealed 5,300 cases. Of 1,000 cases examined at the Zamurradganj Hospital, 700 were from Fyzabad, one of the districts of OUDH. For every patient who has come for examination, Chandy estimates that there must be 10 others who have not. Ninety per cent of the discovered cases were in males, a finding which he attributes to the purdah system which prevents women patients from attending the clinics.

Santra (1941) found 55 cases in a population of 5,870 living in 56 villages around Pura Kulander, a prevalence of 9.4 per 1,000.

CHANDY, P. J.

1941. Leprosy in the Fyzabad District. *Leprosy in India*, 13, 18-21.

## NEWS ITEM.

1939. Opening of the Fyzabad Leper Home and Hospital. *Internat. J. Leprosy*, 7, 106-107.

SANTRA, I.

1941. Report on epidemiological observations on leprosy in Assam. *Leprosy in India*, 13, 146-148.

## INDO-CHINA, FRENCH

Population: 23,853,500

Area: 286,422

Sorel (1938) states that the probable number of cases was between 12,000 and 15,000, a prevalence rate of about 0.65 per 1,000.

Delinotte (1939) reports on cases in the following states: TONKIN, in 1935, had 2,806 patients in six leprosaria; ANNAM, in 1937, had 771 in four colonies; COCHIN-CHINA, in 1935, had 930 cases known; CAMBODIA, in 1937, had 280 inmates in the agricultural colony of Troeng, and 30 under treatment at the hospital centers; LAOS, in 1937, had 97 patients in the leprosaria.

DELINOTTE, H.

1939. The fight against leprosy in the French overseas territories. *Internat. J. Leprosy*, 7, 517-547.

SOREL, F. P. J.

1938. Prophylaxie de la lèpre dans les colonies Françaises. *Bull. Office internat. d'hyg. pub.*, (suppl. to no. 6), pt. 1, 30, 1-21.

## IRAN

Population: 15,055,115

Area: 628,000

Lichtwardt (1940) states that there has been no official government survey of leprosy in Iran. It is one of the minor medical problems. The heaviest prevalence is in the northeastern and northwestern corners. There were in 1940 records of 520 known cases, but conservative estimates would bring the total to between 1,000 and 2,000, a rate of from 0.1 to 0.2 per 1,000. Of 520 known leprosy persons, 264 were of Turkish origin, 171 of the Berberi tribes, 60 Kurds, 16 Gilanis, and 9 "might be classed as true Iranians."

LICHTWARDT, H. A.

1940. Leprosy in Iran. *Leper Quart.*, 14, 12-18.

## IRAQ

Population: 5,000,000

Area: 140,000

Rogers and Muir (1940) cite Araujo's estimate made in 1929 of 300 cases, or 0.12 per 1,000, with only 45 patients in isolation. No recent figures are available.

ROGERS, L. and MUIR, E.

1940. Leprosy. The Williams and Wilkins Co., Baltimore, ed. 2, p. 14.

## JAPAN

Population: 72,875,800

PROPER

Area: 148,756

Hayashi (1941) states that there were 11 national leprosaria with 9,200 inmates, and four private leprosaria with 300 patients.

Ota *et al* (1933) give the number of known cases as 14,741 according to the census of 1930. There were 30,357 cases in 1904 and only 16,261 in 1919. They cite Murata's estimate of 40,000 cases, and Aoki's estimate of not less than 20,000.

Information obtained by Burgess (1937) from a personal visit indicates general agreement that there were about 50,000 cases of all types.

Oltmans (1933) in an address delivered in 1932 stated that the distribution of the disease throughout Japan was remarkably even, with the exception of the sparsely populated northern island where very few cases can be found.

Maeda (1940) reports on Tanegashima, a small island south of Kagoshima in southern Japan. There were 39,467 inhabitants, and 51 of these had leprosy, a rate of 1.3 per 1,000.

BURGESS, P.

1937. Information from a personal visit.

HAYASHI, F.

1941. Personal communication to Perry Burgess.

MAEDA, T.

1940. Leprosy survey in Tanegashima. *La Lepro*, 11, suppl. 1 (abstract). Abstract in *Internat. J. Leprosy*, 1941, 9, 375.

OLTMANS, A.

1933. Anti-leprosy movements in Japan. Address delivered at the China Leprosy Conference, Shanghai, October 1932. *Leprosy Rev.*, 4, 82-88.

OTA, M. *et al.*

1933. An epidemiological investigation of leprosy in the Miyagi Prefecture. *La Lepro*, 4, 344. *Internat. J. Leprosy*, 1934, 2, 459-464.

## FORMOSA

Population: 5,212,426

Area: 13,880

Kamikawa (1940) states that a survey made by the Police Board in 1936 revealed 827 cases. The author estimates that the actual number of cases is 50 per cent greater than this, or 1,241, in view of a sample survey made in 1936 of seven heavily infected localities. He mentions some of the leprosaria on the island: The Rakusei-in, near Taihoku, with 679 patients in 1939; Rakuzan-en (Happy Mount Leprosy Colony) near Taihoku, with 48 patients in 1939; out-patients are treated by the Mackay Memorial Hospital at Taihoku, the Shinroh

## JAPAN

Hospital at Tainam, and the Christian Hospital at Shokwa. There is a higher proportion of nodular cases than is the general rule.

Gushue-Taylor (1944) makes a much higher estimate. He considers that there are 3,000 to 4,000 cases, with 80 per cent lepromatous. He gives the following approximate distribution by prefectures: Taihoku, 2 per 1,000; Tainam, 2 per 1,000; Ako, 1.5 per 1,000; Karenko, 1 per 1,000; Taito, 1 per 1,000; and Shinchiku, 0.5 per 1,000.

GUSHUE-TAYLOR, G.

1944. Founder of the Happy Mount Leprosy Colony, North Formosa, in a personal communication to Perry Burgess, based upon experience terminating December 1940.

KAMIKAWA, Y.

1940. The history and distribution of leprosy in Formosa. Summary read at Internat. Leprosy Conference, Cairo, March 1938. *Internat. J. Leprosy*, 8, 345-352.

## KOREA (Chosen)

Population: 22,633,587

Area: 85,246

Wilson (1934) cites an estimate that there were about 20,000 cases, most of these in the southern section.

MacKenzie (1936) states that in the South Kyung Sang Province there were between 6,000 and 7,000 cases in different stages of the disease. He quotes the estimate of 20,000 cases for all of KOREA.

Fletcher (1944) states that the number of cases of leprosy in KOREA is unknown. Between 7,000 and 8,000 are isolated. There were as of 1942 three institutions for the care of these patients: About 6,000 on Little Deer Island off the southwest coast; 700 at Biederwolf Colony nearby; and 700 at Taiku in the south. The leprosarium at Fusan was discontinued in 1941. Most of the leprosy individuals are south of Keijo (Seoul), the capital. As to the estimate of 20,000 for the total number of cases existing that is sometimes quoted, that seems to include only the beggar group. For every beggar outcast leper, Fletcher thinks there are 4 secluded cases living at home, as a rule in the earlier stage of the disease.

FLETCHER, A. G.

1944. Personal communication to Perry Burgess.

MACKENZIE, J. N.

1936. A note on leprosy work in Korea. *Internat. J. Leprosy*, 4, 215-218.

WILSON, R. M.

1934. A review of the work at Soonchun Leprosy Settlement and notes on the leprosy situation in Korea. *Leprosy Rev.*, 5, 166-170.

## MALAYA

Population: 4,839,444

Area: 50,966

A Committee Report (1937) states that there were at that time 3,979 patients in segregation in Malaya, hence: In the FEDERATED MALAY STATES there were 1,227 at Pulau Jerek Settlement, 2,077 at Sungei Buloh Settlement, and 203 at the Opium Smoking Leper's Camp at Kuala Lumpur; in the UNFEDERATED MALAY

STATES there were 200 at Johore; in the STRAITS SETTLEMENTS there were 200 at Singapore; and 72 women (mostly Chinese) at Jelutong, Penang.

Ryrie (1934) who is in charge of the Sungei Buloh Settlement near Kuala Lumpur, states that most of the leprosy in the region is found among non-Malaysians, chiefly Chinese and Indians.

COMMITTEE REPORT, MALAYA.

1937. Report of the Informal Committee appointed to consider the problems of the provision of future accommodations for lepers and mental patients. Straits Settlements, No. 79.

RYRIE, G. A.

1934. Leprosy in Malaya. *Internat. J. Leprosy*, 2, 77-80.

---

PALESTINE

*Population*: 1,568,664

*Area*: 10,429

Canaan (1933) estimates the number of cases in Palestine at about 80. The Leper Home "Jesus Hilfe" in Jerusalem was opened in 1867 and in 1933 had 21 patients in advanced stages. From 1908 to 1933 the Home has housed patients from 101 villages of Palestine. A list of infected districts is given in an historical article by the same author (1937).

CANAAN, T.

1933. Ridding Palestine of leprosy. *Leprosy Rev.*, 4, 94-98.

1937. Statistisches und Geschichtliches über die Lepra in Palästina. *Arch. f. Schiffs- u. Tropen-Hyg.*, 41, 684-690.

---

SYRIA

*Population*: 1,696,638

*Area*: 49,100

Rogers and Muir (1940) cite Araujo's estimate of 250 cases, or a prevalence of about 0.18 per 1,000, with 50 isolated.

ROGERS, L. and MUIR, E.

1940. Leprosy. The Williams and Wilkins Co., Baltimore, ed. 2, p. 14.

---

THAILAND (Siam)

*Population*: 15,718,000

*Area*: 200,148

A League of Nations Report (1937) states that a survey revealed 16,893 cases for the whole country. The distribution was fairly general: 7,041 in the northeast division; 4,256 in the central; 3,105 in the north; and 2,431 in the south.

Kneedler (1944) states that leprosy is prevalent throughout the country, including the remotest hill tribes. He estimates the prevalence to be at least 4 per 1,000 which means a total of about 62,800 cases. Chiangmai Leprosarium had about 500 in-patients (in 1941) and was being run by a German under the auspices of the Thai government. Out-patient work was discontinued. The Nakon Leper Asylum in 1941 had 125 in-patients. The government asylums at Khonkhaen and near Bangkok have a capacity of about 400 in-patients each.

KNEEDLER, W. H.

1944. Personal communication to Perry Burgess.

LEAGUE OF NATIONS PUBLICATION.

1937. Intergovernmental conference of Far-Eastern countries on rural hygiene. Ser. L.O.N.P., III, 8.

TURKEY

*Population:* 17,869,901

*Area:* 294,416

A News Item in the Leper Quarterly (1939) states that leprosy is still prevalent in Turkey. There is a large leprosarium in the suburbs of Istanbul.

McKinley (1935) considers leprosy to be an important health problem, and estimates that there were 100 cases at that time.

McKINLEY, E. B.

1935. A Geography of Disease. The George Washington University Press, Washington, D. C., ed. 1, p. 370.

NEWS ITEM.

1939. Leper Quart., 13, 23.