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The Leprosy Problems in Taiwan

'What we do know is not being applied'

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Dr. Oliver W. Hasselblad, President of American Leprosy Missions Inc., has recently pointed out that the most optimistic appraisals fail to suggest that the incidence of leprosy is less today that it was 20 years ago[1]. Part of the problem, he feels, is that what knowledge we do possess of leprosy is not properly applied. These observations are entirely applicable to the present situation in Taiwan. We have advanced beyond the obstacles which were initially presented by lack of knowledge of the pathology and immunology of leprosy. Even though we now have more potent drugs and more knowledge of the disease, the number of leprosy patients seems to be increasing. This is, unfortunately, not entirely due to better case finding in the community.

The first regular surveys of leprosy prevalence in Taiwan were conducted through the police censuses between 1910 and 1939. In 1930, Dr. Y. Kamikawa, the superintendent of Losheng government leprosarium during the period of Japanese rule, reported a total of 1,080 leprosy patients in Taiwan—the largest number reported during these surveys[2]. There was no intensive leprosy survey during World War II, but in 1944 963 patients were found in a total population of some 6 million (including the Pescadores Islands). By 1948, there were still approximately 1,000 leprosy patients under treatment in the 2 leprosaria—Losheng Leprosarium and Happy Mount Leprosy Colony.

When J. A. Doull, M.D., Medical Director of the Leonard Wood Memorial (American Leprosy Foundation), visited Taiwan in late 1952, however, he cast doubt on the reliability of the previous studies[3]. He pointed out that the number of new patients admitted to the Losheng Leprosarium each year had varied greatly. In 1948, it was 124; in 1949, 56; in 1950, 79; in 1951, 112; and in the first 6 months of 1952, 76. These patients had had the disease for at least several years at the time of discovery, and there were, he estimated, at least 5 times as many in the general population. A police census made in 1939 had revealed 827 patients, but, from a study completed in 7 selected epidemic areas it was estimated that the true total number was 50% higher, or 1,241. Of the patients in the leprosaria in 1952, about 67% were Taiwan-born and 33% were mainland-born Chinese including military people who came to Taiwan after World War II. (The proportion of the Taiwan-born is now much lower, however.) The ratio of males to females, about 4 : 1 in 1952, was related to the influx of many young men from the mainland. Subsequent studies have indicated, however, that the true sex ratio of leprosy on Taiwan was 2 males for every female. In the institution at that time there were said to be only 2 or 3 under the age of 15 years, a fact that suggested the presence of a considerable reservoir of undiscovered patients.

Compulsory hospitalization of all leprosy patients was abolished in 1955, partly through the author's efforts to expand outpatient leprosy facilities, and partly because the leprosaria could not provide enough beds for the increasing number of patients seeking admission[4]. Between 1962 and 1967, the annual reports of all 'special skin clinics' and leprosaria on Taiwan were compiled by Dr. Kazuo Saikawa, WHO Medical Officer and Medical Adviser to the Taiwan Leprosy Relief Association. The information[4] thus derived is summarized in Table 1, and indicates a progressive increase in the number of leprosy patients attending outpatient facilities over this time.

TABLE 1

Number of patients treated during 1962 to 1967

Year	*In-patient*			*Out-patient*			*Total treated*		
	Adults	*Children*	*Total*	*Adults*	*Children*	*Total*	*Adults*	*Children*	*Total*
1962	1,081	10	1,091	1,958	103	2,061	3,039	113	3,152
1963	1,092	19	1,111	2,172	122	2,294	3,264	141	3,405
1964	1,098	16	1,11 4	2,370	146	2,516	3,468	162	3,630
1965	1,101	17	1,118	2,501	155	2,656	3,602	172	3,774
1966	1,133	11	1,144	2,726	184	2,910	3,859	195	4,054
1967	1,028	9	1,037	2,974	162	3,136	3,902	171	4,173

There has been a steady increase in the total number of leprosy patients reported since accurate statistics became available from 1962 onwards. As shown in Table 2, well over 250 new patients per year have been reported on average. The true figure, however, may be closer to 10,000 persons with leprosy, since case reporting from the special skin clinics may not be complete.

In 1968 the annual report of the Provincial Losheng Leprosarium showed that 4,204 leprosy patients were under treatment in a total population of 13,297,000—this is a prevalence of 3.18 per 10,000 population. The regional distribution of these patients was quite variable. Thus, there were 35.16 per 10,000 in Pheng-hu County (Pescadores Is. in the Taiwan Straits), the highest density in Taiwan, and the next, 6.86 in Kaohsiung city, 6.39 in Tainan city, and 4.51 in Taipei city, but only 0.78 per 10,000 in Nan-tou County in central Taiwan.

The shortage of trained leprologists and dermatologists on Taiwan greatly hinders control of the disease. Because patients with a variety of skin diseases visit the so-called 'skin' clinics, the non-specialist medical worker tends to miss any skin disease he does not recognize as leprosy. Thus, in the Department of Dermatology of Mackay Hospital in Taipei, the author has seen a great variety of skin disorders initially diagnosed as leprosy; such as seborrheic dermatitis, acne vulgaris, ringworm, burn scar, traumatic scar, chronic eczema, neuro-dermatitis, stasis dermatitis, leg ulcers, alopecia, leucoderma, erysipelas, psoriasis, syphilis, warts, new growths; and from such rarer diseases as cutaneous leishmaniasis, lupus erythematosus and acanthosis nigricans.

A major impediment to proper leprosy control on Taiwan is the frequent failure of local physicians to provide treatment for leprosy patients in the routine outpatient departments of general and mission hospitals. Fear of transmission is not a valid reason for this situation since the contagiousness of leprosy is less than that of tuberculosis, venereal disease, trachoma and measles—diseases for which outpatient treatment is readily available in urban areas in Taiwan.

TABLE 2

Number of new patients and incidence of treated patients, 1962 to 1967

Year	*New patients*			*Total treated*	*Number of treated per 10,000 population*
	Adults	*Children*	*Total*		
1962	357	22	379	3,152	2.74
1963	270	21	291	3,405	2.86
1964	238	19	257	3,630	2.96
1965	168	11	179	3,774	2.99
1966	189	24	213	4,054	3.05
1967	229	20	249	4,173	3.14

In order that maximal benefit may be derived by leprosy patients visiting outpatient clinics, such clinics should be located in urban areas where well trained medical personnel and adequate diagnostic and treatment facilities are available. In fact, we usually find more patients coming from urban areas than from rural areas. Despite this obvious necessity, leprosy clinics and leprosaria have been and are being located in rural areas by the governmental and volunteer agencies. Not only do such rural surroundings preclude adequate management of acutely ill or active patients, but also the patients are more exposed to the prejudices of the local population. Moreover, the sponsoring agency, governmental or volunteer, is burdened with a costly and static institution, and is unable to recruit adequate staff. As a result, important secondary programmes such as mobile clinics, home visitations and new case finding among relatives and contacts of known patients do not function properly.

Foreign missionary workers in clinics or leprosaria work under certain handicaps and restrictions due to problems in understanding the local language, customs and manners. We agree with Mr. James C. McGilvray of the World Council of Churches and the White House Advisory Staff who stated 'it is a tragedy that leprosy work in Taiwan has only attracted a few local Christian medical workers'[6]. This report was made with his 2 co-workers after a 4 weeks' medical survey of the islands in November, 1967.

Since the first outpatient clinic recommended by the author began in 1953 in the Losheng Leprosarium[4], and the second clinic in 1955 in the Provincial Pheng-hu General Hospital in Pescadores Islands, where the incidence of leprosy is the highest in Taiwan, there has been a definite increase in the utilization of such clinics[7]. At present three-quarters of the total number of known leprosy patients are treated as outpatients at the 12 skin clinics on Taiwan. Whether this type of treatment is the best remains to be seen.

In the author's opinion a broadened leprosy control programme is clearly needed in Taiwan. Such a programme should include:—

1. Education of the patients and the public regarding the true nature of leprosy.
2. Earlier detection of leprosy through home visiting of a patient's family and other close contacts, or through skin examination of all the students who are under compulsory education in middle schools.
3. Increased use of local medical personnel in the care of patients—both in institutions and in outpatient departments.
4. Provision of scholarships for training in leprosy, and the encouragement of leprosy research programmes.
5. Careful and complete documentation of each new leprosy patient (we still do not possess accurate data on the prevalence of leprosy on Taiwan).
6. Routine outpatient facilities in all hospitals should be open to leprosy patients as they are to patients suffering from other skin diseases.

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