

Case Detection Rates for Central Burma (1962-1972)¹Kyaw Lwin and Bos Zuiderhoek²

Leprosy is an important public health problem in Burma. The prevalence of leprosy is high in Central Burma (Fig. 1) and low to moderate in other parts of the country; the rate ranging from 5 to 20 per 1,000 population with pockets of higher prevalence. With the assistance of WHO and UNICEF, the Government of the Union of Burma launched an intensive leprosy control program, which started in 1958 in two project areas in Central Burma and has been



FIG. 1. Union of Burma. Distance north to utmost south is 1,250 miles. Total population as of April 1973 census is 28.8 million. Religion is mainly Buddhist. In Central Burma lives 30% of total population (density 190 per square mile).

extended gradually until, in 1969, the whole country was covered by 39 project areas. The government now employs 54 medical officers and 650 paramedical workers, both on a full time basis in the leprosy control program.

On 1 January 1973 in the whole of Burma there were 240,000 registered leprosy patients. Of this total, 23% were of the lepromatous type and 14% were children under 15 years of age. Ninety-five percent of the registered total are under treatment. The general line of the leprosy control program is based on health education, case finding by means of annual examination of household contacts and regular school surveys, regular treatment starting as early as possible, and regular follow-up of cases. Dapsone in the form of tablets is the principal drug used for treatment.

An integration trial on the best procedures for integration of specialized leprosy service into general health services is under way in one district of Central Burma.

Objectives. As the 12 project areas of Central Burma, in comparison with the remainder of Burma, have been in operation longest and since its areas are within easy reach, this part of Burma has developed into the most important area for evaluation purposes and has been chosen as such for our objectives. It represents more than 60% of the total number of registered cases in the whole country with an attendance for treatment of 97%.

Of the indicators for assessment of leprosy control programs mentioned in the third report of the WHO Expert Committee (1.7), the rate of cases registered yearly (case detection rate) has been chosen in this report for more intensive study. With an annual increase of case finding activities, the trend of case detection rates for lepromatous and nonlepromatous cases, especially among the childhood population, seems to be of the most interest.

MATERIALS AND METHODS

There is a continuous assessment of the program by means of monthly and annual

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reports prepared by the medical officers in charge of project areas. From these reports case detection rates for the years 1962 to 1972 were calculated (^{2,3}), viz., the number of new cases detected per 100,000 covered population for a given year.

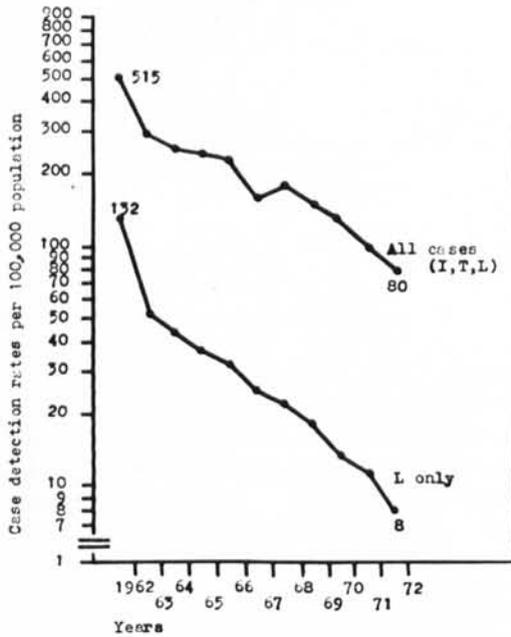


FIG. 2. Case detection rates for Central Burma 1962-1972.

RESULTS

The curve of the case detection rates for all newly detected cases declined from 515 in 1962 to 80 in 1972 (Fig. 2). The curve declines even more steeply when separately drawn for lepromatous cases: from 131 in 1962 to 8 in 1972. It must be noted that in our campaign the lepromatous case designation includes borderline cases.³ The same observation with regard to the decrease in case detection rates has been described by Suresh *et al* (⁶) for the Pogiri Leprosy Project in Andhra Pradesh, India.

If we consider the curves of case detection rates for all newly detected cases by age-group (Fig. 3), the decline is observable in all age-groups. The curve of the age-group (0-9) shows the highest decline, followed by

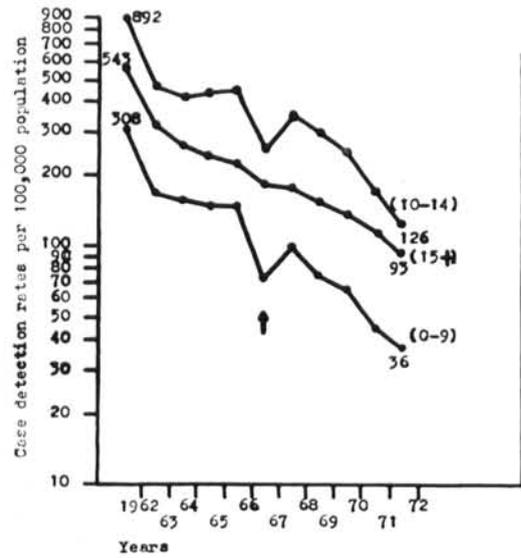


FIG. 3. Case detection rates for Central Burma 1962-1972 for age-groups 0-9, 10-14, and 15+ years. All cases I, T, L.

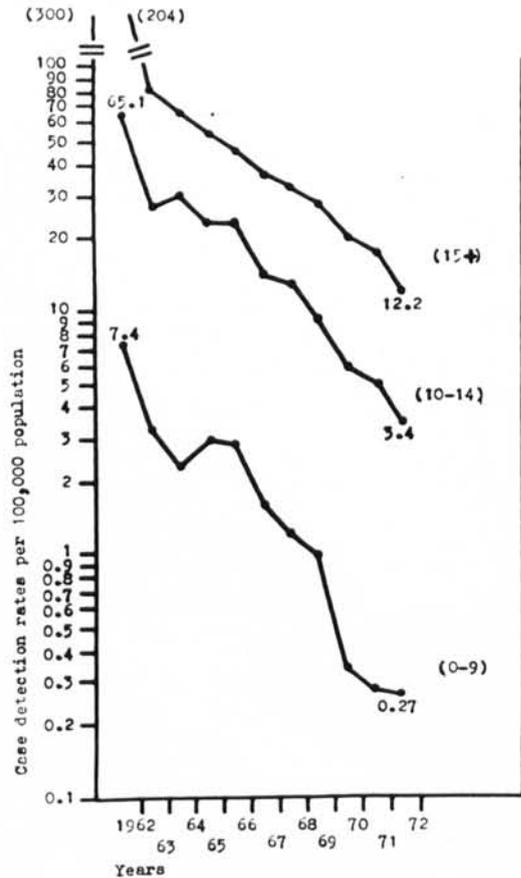


FIG. 4. Case detection rates for Central Burma 1962-1972 for age-groups 0-9, 10-14, and 15+ years. Lepromatous leprosy.

³Note that the authors use the designations I, T, and L in field projects to represent respectively indeterminate, TT and BT inclusively, and BB, BL, and LL inclusively.

the age-group (10-14). The dip in 1967, especially in curves of the younger age-groups mainly caused by a drop in the case detection of nonlepromatous cases, is due to a decrease in school survey activities during 1967 due to technical reasons. The same trend is observable in the curves of case detection rates by age-group separately drawn for lepromatous cases (Fig. 4). However, there is no dip in 1967 as lepromatous cases generally come forward spontaneously.

DISCUSSION

The annual figures show a definite decrease in case detection rates for Central Burma. The question may be asked as to whether or not this is due to a decrease in case finding activities as was obviously the case with regard to the dip in 1967. However, there was a regular increase in these activities during this period (Fig. 5). The

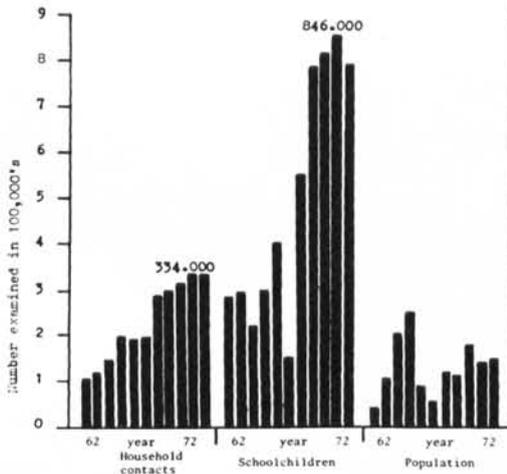


FIG. 5. Case finding activities in Central Burma (in absolute figures) from 1962-1972. Population surveys include mass, children, special group, and random surveys.

routine case finding methods on which the campaign is based, namely annual examination of household contacts and annual school surveys, both culminated during recent years. By 1972, 82% of household contacts and 90% of the schools had been examined, totaling more than 1.1 million persons in the most susceptible sector. Population surveys are only done occasionally.

If we consider the whole of Central Burma as a more or less homogeneous area with re-

gard to the leprosy situation, which has without doubt limitations, and if we compare the two WHO assessments done under comparable circumstances in two different areas of Central Burma in 1963 covering a total sample of 19,000 population (8), and 1972-1973 covering a total sample of 24,000 (5), the results show a 35% decrease in case detection rates for all newly detected cases. The WHO assessment in 1963 (8) compared with an assessment carried out by the national staff under comparable circumstances in four different areas of Central Burma in 1972-1973 covering a total sample of 60,000 (4), shows even greater decrease of 44% in case detection rates for all newly detected cases.

Both assessments of WHO and national staff during 1972-1973 found separately the same percentage of undetected lepromatous cases in their sample, namely 9%, an encouraging low percentage, the more so as of the total of 35 newly detected lepromatous cases only two were under the age of 15. The attendance for treatment on the part of lepromatous cases in Central Burma comes to 98%, of which number 95% are regular.

The trend shows a definite decrease in case detection rates for Central Burma. In our opinion, active case finding by means of annual examination of household contacts and annual school surveys, regular treatment beginning at an early stage, combined with health education, is found to be an effective method of leprosy control in Central Burma.

SUMMARY

A short description of the leprosy control program in Burma is given and the decrease of the case detection rates during the period 1962-1972 are presented to show the effects of control measures in the program emphasizing the importance of early case detection through annual examination of household contacts and school children, regular treatment and health education.

RESUMEN

Se dá una breve descripción del programa de control anti-leproso en Burma y se presenta la disminución de las tasas de detección de casos durante el período 1962-1972, para mostrar los efectos de las medidas del programa de control, haciendo énfasis en la importancia de la detección temprana de los casos a través de exám-

enes anuales de los contactos domiciliarios y de los niños en edad escolar, tratamiento regular y educación sanitaria.

RÉSUMÉ

On donne une courte description du programme du contrôle de la lèpre en Birmanie. La diminution du taux de détection au cours de la période s'étendant de 1962-1972 qui sont présentés, témoigne de l'effet des mesures de contrôle sur un programme qui est axé sur la détection précoce des cas par examens annuels des contacts domiciliars et des enfants des écoles, sur le traitement régulier et sur l'éducation sanitaire.

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