Leprosy Control Programme in Kalay Zone Sagaing Division, Union of Myanmar

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1 . Profile (Country profile and Area profile)

1) Location

Myanmar, one of the South-east Asia, is located on the western edge of the Indo-China peninsula. It is bounded by the Thailand and Laos in the east , China in the north and north-east, India in the north-west, Bangladesh in the west and by Indian Ocean in the south-west and south. Myanmar consists of 7 divisions and 7 states. The whole country population is about nearly 45 million in 1996 (Fig.1) .

Kalay area is situated within Sagaing division and located on the north-west part of the country (Fig). It is nearly 1200 kilometer far away from the Capital, Yangon (former name Rangoon) . Kalay zone consists of three districts and one township. Total population in the Kaly zone is 77,7743 in 1996. Kalay zone is also a border area and it is very difficult to travel from one district

Fig.1. Map of Union Of Myanmar

to another during the rainy season (July, August and September).

2) Geography

Geographically, Myanmar can be divided into hilly, coastal, dry area, an area of plains, valleys and a delta region . Administratively, the country is divided into 14 States and Divisions. There are 52 Districts, 320 Townships, 13,762 Village

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tracts and 65,325 villages in the whole country. Kalay zone is composed of valley and hilly areas. There are 3 districts and one township. The districts are Kalay, Tamu and Mawlaik. One township is Homalin township. Within Kalay zone it consists of 7 townships, these are Kalay, Kalay-wa, Mingin, Tamu, Mawlaik, Phaungbyin and Homalin township.

3) People

Myanmar is a union of many nationalities as many as 135 groups, speaking over one hundred languages and dialects. The term Myanmar embraces all nationalities. In Kalay zone there are so many nationalities and ethnic groups. The majorities are Bamar and Chin.

4) Religion

In Myanmar over 80% are Buddhist. There are also Christians, Muslims and Hindus. In Kalay zone the same.

2 . Leprosy Control Project

Leprosy is a chronic infectious disease caused by *Mycobacterium leprae*, an acid-fast, rod-shaped bacillus. The disease mainly affects the skin, the peripheral nerves, mucosa of the upper respiratory tract and also the eyes, apart from some other structures¹⁾.

Leprosy is one of the major communicable dis-

ease in Union of Myanmar. The Leprosy Control Program In Myanmar was started on 1951-52 and up to now. The development phases of leprosy control program in Myanmar from 1951-52 to up to date is shown in Table 1²⁾

1) Developmental phase

Leprosy has been endemic in Myanmar since the ancient days. Among the communicable diseases, it causes the greatest socio-economic problem due to its disfigurement and disabilities. The government decided to launch a five-year programme to cover the whole country by 1968. During the consolidation and maintenance phase of Leprosy Control (1969-1977) field trials for integration of leprosy control activities into Basic Health Service (BHS) was made continuously in selected areas. With the experiences gained in these integration trials, the government decided to integrate leprosy control and other disease control activities into BHS under the People's Health Plan I (PHP I) (1977-1980) in phased manner till 1988.

During this period case finding, treatment with Dapsone and registration activities were integrated whereas patient assessment, epidemiological investigation and other technical components were still undertaken by the specialized Leprosy Control Project personnel. A national

Table 1. Developmental phase of Leprosy Control Programme

Sr.No.	Phase	Period	Main activities
1	Initial phase	1951-1952	WHO consultant visited and campaign started
2	Trial phase	1953-1963	Pilot trial in six endemic districts
3	Expansion phase	1964-1968	Expansion to cover the whole country
4	Maintenance and consolidation phase	1968-1977	Surveillance, education and treatment all over the country, capacity building
5	Partial integration phase	1977-1988	Partial integration with People's Health Plan
6	MDT initiation phase	1988-1991	MDT was started in six hyper endemic regions
7	MDT expansion phase (integrated)	1991-1996	MDT expansion to cover the whole country
8	Leprosy elimination phase	1996-2000	To eliminate leprosy, as one of the major health problem of the country

regimen consisting of Rifampicin, Clofazimine and Dapsone was tried and implemented to treat the "open" cases (Multibacillary/ Lepromatous M B) throughout the country from 1979 till 1986. With the advice of World Health Organization (WHO), the present Multi Drug Therapy (MDT) regimen with fixed duration was initiated in 6 hyper endemic divisions, Ayeyarwady, Bago, Magway, Mandalay, Sagaing and Yangon in a phase manner by vertical staff since 1988. But at the end of 1990, it was recognized that, the present leprosy control manpower will not be sufficient to cover all the cases within the short period. Hence in addition to previously integrated activities, MDT activities were also integrated into BHS by the mid-1991.

Even though WHO MDT regimen was introduced in Myanmar since 1988, in Kalay area it was started in 1994.

2) Policy

The National Health Committee formulated the National Health Policy in 1993. It governs and guides all health activities carried by the Ministry of Health for raising the level of health of the people. It is also committed to the objectives of "Health for all by the year 2000" goals to be implemented in Primary Health Care approach.

In accordance to the policy guide lines, leprosy elimination was given a high priority and ranked No.8 in the National Health Plan 1993-1996. Therefore the Ministry of Health is committed to the WHO's global goal of leprosy elimination by reducing the prevalence to below 1/10,000 population by the year 2000.

3. Present Situation

1) Magnitude of the problem

Leprosy still remains to be a public health problem of the country and it ranks No. 8 in the planning of National Health Plan II (1993-1996). Since the implementation, various surveys were performed to estimate the leprosy burden in the country. The estimate prevalence rate varied from

120/10,000 (Bago & Kawa Survey 1991) to 240/10,000 (1973 National assessment survey) depending on the "case" definition and other factors. At the end of 1994 using WHO correction factor method (Quick & dirty method), it was estimated there can be 50,781 cases in the country. At the end of 1995, there was 21,071 registered cases and prevalence rate was 4.7/10,000. At the end of 1996, there were only 18,969 cases and prevalence rate was 4.2/10,000 in the whole country⁽²⁾.

The registered prevalence was reduced from 39.9 /10,000 in 1988 to 4.2 /10,000 at the end of 1996 (Fig. 2)⁽²⁾.

In Kalay Zone, at the beginning of MDT, there were 433 registered cases, and the prevalence rate was 5.9/10,000. At the end of 1996 there was 233 registered cases and prevalence rate was 3/10,000.

The registered prevalence rate was reduced from 5.9/10,000 to 3/10,000 at the end of 1996 (Fig.4)⁽³⁾.

2) MDT coverage

As MDT was integrated, coverage during the period was accelerated. At the end of 1996, total 18,969 patients (100%) were under MDT, and all the 320 townships were under MDT, in the whole country. In Kalay zone, (233) patients (100%) and all the townships within the area, were under MDT.

3) New case finding activities

Due to the introduction of MDT and intensification of both active and passive case finding activities, more new cases were detected and brought under MDT. During 1996, a total of 4784 cases were detected in the whole country. New case detection rate in the whole country was 10.6/100,000 population. In Kalay zone, 145 cases were detected through both active and passive case finding activities and brought under MDT. New case detection rate in Kalay zone was 18.6/100,000 population. MB rate among new case was 44.8%. Among these new cases, 72 cases

were detected through mass survey. Therefore mass survey detection rate was 25/100,000. New case finding ratio of the children below the age of 14 years was 16.55%. New case finding from 1994 to 1996 in Kalay Zone is shown in (Fig. 5)⁽³⁾.

Special attention was given to children to detect early case. At the present 6.3%, and 7.7% of the registered patients of the whole country and Kalay zone respectively are children below the age of 14 years. These cases were detected by examine the school children, children contacts of the leprosy cases and by health education. Children attending school are encourage to continue education and health education was given to

school teacher and parents for integrated education. There was no gross disability among these cases.

4) Disability rate

Various surveys were conducted to determine the disability grade among the registered cases. Bago, Kawa survey, 1991, and Hmawbi survey showed 17.25% of disabilities Grade II among the registered cases. Grade II disabilities among new case in MDT area was reported to be 9-11%⁽²⁾. In Kalay zone disabilities grade II among new cases was 12.6%.

5) Cure rate

According to the efficiency of the WHO MDT

Fig.2. Yearly Registered Cases Of Leprosy In MYANMAR

Fig.5. New Cases Detected In KALAY ZONE

Fig.4. Case Summary In KALAY ZONE (from 1994 to 1996)

Fig.6. Release From Treatment (RFT) Cases In KALAY ZONE (from 1994 to 1996)

regimen, more cases were released from treatment as cured. During 1996 alone, 5768 cases were released from treatment in the whole coun-

try. A cumulative total of 146,847 cases were released from treatment at the end of 1996⁽²⁾.

In Kalay zone, during 1996, 346 cases were released from treatment as cured. A cumulative total of 635 cases were released from treatment from 1994 to at the end of 1996.

Epidemiological and operational indicators, according to various townships, under Kalay zone are mentioned in Table 2⁽³⁾.

MDT progress from 1994 to 1996 in Kalay zone is shown in (Fig. 3)⁽³⁾.

4. Leprosy Elimination Project in Myanmar (1996-2001)

The government of the Union of Myanmar is committed for the elimination of leprosy as a public health problem of the country by the year 2000. This is in accordance to WHO's global goal of leprosy elimination by the year 2000, which resolution was adopted at the 44th World Health Assembly in 1991. In order to achieve above goals of elimination, the programme is ongoing programme in an integrated approach, making the basic health services which are responsible

Fig.3. MDT progress chart in KALAY ZONE (from 1994 to 1996)

Table 2. Epidemiological And Operational Indicators Average (1996) In KALAY ZONE

Sr, No, INDICATORS	KALAY	KALAYWA	MINGIN	PHAUNGBYIN	MAWLAIK	TAMU	HOMALIN	Average
1..Registered prevalence rate/10,000 pop:	4.9	1.6	2.9	2.4	0.6	0.4	2.9	3
2..Multibacillary rate /10,000 pop:	3.8	1.6	2.5	2.4	0.6	0.4	2.9	2.6
3..Multibacillary (%)	78%	100%	86%	100%	100%	100%	100%	87%
4..Under 14 years proportion(%)	15%	-	-	-	-	-	-	77%
5..New case MB proportion (%)	39%	86%	53%	-	100%	100%	-	45%
6..New case under 14 years proportion (%)	20%	-	-	-	-	-	-	16.6%
7..Contact Detection Rate, /10,000 pop	26.4	-	-	-	-	-	-	26.4
8..School Detection Rate, /10,000 pop	0.4	-	-	-	-	-	-	0.4
9..Mass Survey Detection Rate, /10,000 pop.	20	111	73	-	-	-	-	25
10..Active Case Detection Rate, /10,000 pop.	48.7	57	82.4	-	-	-	-	51.7
11..New Case Detection Rate, /100,000 pop.	46.7	12.7	13.9	4	-	1.3	-	18.8
12..Proportion of registered cases on MDT coverage	100%	100%	100%	100%	100%	100%	100%	100%
13..Total number of cases completing MDT during the year	188	14	115	8	-	18	3	346
14..MDT Release Proportion Percentage Of Discharged Cases	95%	86%	98%	100%	-	95%	100%	96%

agency for implementation, while specialized leprosy control teams sustaining the technical support.

The Leprosy Control Project (LCP) has a technical organization at Central, State and Divisional level and District levels. These teams at the State/ Divisional and District levels are stationed under the administration of the Basic Health Service (BHS) at the respective levels.

Special actions such as clinical research, health system research, sentinel monitoring and other action such as evaluation and monitoring were carried out by the LCP personal in conjunction with BHS. At the township levels, the township medical officer are supported either by a junior leprosy worker (JLW) or assistant Leprosy Inspector, and Leprosy Inspector in hyperendemic area.

1) Objectives

General objective is to eliminate leprosy as one of the major health problems of the country by achieving the global goal of reducing the leprosy prevalence to a level of less than one per 10,000 population by the year 2000 and promotion of medical and social rehabilitation.

2) Strategies

The main strategies for leprosy elimination is to reduce the endemicity of the disease of the community and interrupting the chain of transmission with the available potent tools for the prompt, effective and adequate chemotherapy to all known cases. To be more meaningful and to bring epidemiological impact within the shortest period is also crucial. It is also important as a mean of prevention of disabilities among the patients. Full MDT coverage with intensified case finding is the main strategy to attain the above mentioned objectives.

The impractical isolations and legislation are not be practiced nor enforced.

3) Implementation activities

Intensive new case finding activities.

New case finding activities are important to

bring out the hidden cases in the community, so that epidemiological impact due to MDT as a tool for interruption of the chain of transmission can be observed as soon as possible by both Active Case Detection methods (Contact examination, School examination, Mass or total population survey) and Passive Case Detection methods.

Effective treatment with MDT

WHO, MDT regimen with the fixed duration of treatment will be the main chemotherapy applied in the field and integrated approach through BHS.

Case holding

As the patients have to be treated utmost to a period of three years, a systematic case holding is essential. It is also crucial to have reliable, feasible and continuous information, and case holding becomes very important activity. Case holding will initiate from the time of registration with individual patient which will be maintained at implementers level during the time of treatment and then transferred to LCP after Release From Treatment (RFT) for further surveillance. Essential and important information's will be transferred to activity register to be maintain at Rural Health Center (RHC) and township levels.

Assessment

Clinical and Bacteriological assessment of the individual patients will be carried by LCP personal with fixed frequencies. Only passive surveillance of RFT cases will be carried on. Any findings such as relapse or complication will be treated.

Prevention of Disability

Prevention of disability among the leprosy cases under treatment and those who have completed MDT will be carried in the field by LCP personal will be enforced for the management of complication, neuritis and reaction at the periphery with appropriate technology and available resources.

Capacity Building

Capacity building of BHS personal will be performed by refresher courses of the township level

annual by the local LCP personal for more cost effective case finding and care and management of the cases at peripheral level .LCP personal will also be trained for Prevention Of Disability (POD) , Prevention Of Worsening Disability (POWD), management of case and programme and also for impact evaluation methodologies by refresher course of two weeks each year at Yangon and Mandalay training centers.

Information Education and Communication (IEC)

All available IEC methods will be applied to sustain the political and government to committed and to increase the public awareness.

Rehabilitation

Personal Affected Leprosy (PAL) will need socio-economic and physical rehabilitation. Rehabilitation activities are to be intensified in a community base approach . Community Base Rehabilitation (CBR) in villages and also providing some out reach POD and POWD activities at the Rural Health Center (RHC) level.

Research

The ongoing research activities will continue as per time schedule given in the respective protocols.

Reporting

Based on the present leprosy reporting system , a standardized reporting system will be developed to get a continuous monitoring and feed back. It will also include to get information on six essential indicators recommended by WHO .

Co-ordination and co-operation

Intrasectoral co-ordination with appropriate units within the ministry of health will be call in by forming sub committees for important tasks. Interdepartmental co-operation will be work for socio economic rehabilitation of PAL s . Both National and International Non Government Organizations (NGO) will be co-ordinated and co-operated for the success of the project. Community participation and community involvement Community participation and involvement will be attained by different Information ,Education and

Communication (IEC) approaches.

5 . Monitoring and Evaluation

1) Monitoring

Implementation activities are to be monitored from administrative as well as technical staff by means of field visit and reviewing reports and returns. It is necessary to monitor the accomplishment of service activities and targets as planned.

2) Evaluation

annual programme evaluation will be done by both BHS and LCP staff from township level to the central level ..Evaluate by using the following six essential indicators.

- a. Registered prevalence rate per 10,000 population.
- b. New case detection rate per 100,000 population.
- c. Proportion of patients with disability grade II among newly detected cases.
- d. MDT coverage.
- e. Cure rate.
- f. Relapse rate.

6. Benefits

- a. By achieving the global goal of 1/10,000 , the endemicity will be reduce and transmission will be interrupted.
- b. Leprosy will no more be a public problem of the country.
- c. PALs will be rehabilitated both physically and socio-economically.
- d. By reducing the infection, through new leprosy cases may be detected but no more or less disability among them.
- e. More BHS and LCP were trained in leprosy.
- f. Community knowledge and awareness increased.
- g. Less cost for maintaining disable personal care.
- h. More appropriate technologies in clinical therapeutics and Health System development for future strategies.

- i. Can look forward for a leprosy free community in foreseeable future.

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ミャンマー、セガイン州カリイにおける ハンセン病のコントロール・プログラム

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ミャンマー、セガイン州における、ハンセン病についての状況を詳細に述べ、ミャンマーにおけるこれからのハンセン病コントロール対策について報告している。

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