NHPP15 – National Leprosy Eradication Programme

Quadrant – I

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Description of Module:

Items	Description of Module
Subject Name	Community Medicine
Paper Name	National Health Policies and Programmes
Module Name/Title	National Leprosy Eradication programme
Module Id	NHPP15
Pre-requisites	Knowledge on current status of leprosy Knowledge on national programmes in general
Objectives	To study about the National Leprosy Eradication programme
Key words	National programme, Leprosy, Eradication

Introduction

Leprosy is a leading cause of permanent physical disability. The most effective way of preventing disability in leprosy is timely diagnosis and treatment before the onset of nerve damage. To control the menace of the problem, Government of India launched National leprosy Control Programme (NLCP) in 1955. The aim was to achieve leprosy control through early detection of cases and treatment with Dapsone mono therapy. However, the programme did not succeed due to very long duration of treatment and irregular compliance by the patients.[1] After introducing Multi Drug Therapy (MDT) in 1982, the programme was redesignated as National Leprosy Eradication Programme (NLEP) in 1983. The NLEP is 100% centrally sponsored scheme and MDT is supplied free of cost to all patients. With the use of MDT, the prevalence of leprosy per 10,000 population declined from 57 in 1983 to 24 in 1992, 1.34 in April 2005 and finally to 0.95 in December 2005, thereby India has achieved the milestone goal of leprosy elimination at national level in 2005.[2] The programme is supported by World Health Organization (WHO), International Federation of Anti-Leprosy Associations (ILEP) and other non-governmental organizations.

The NLEP EMBLEM[3] symbolizes the beauty and purity in lotus: leprosy can be cured and leprosy patient can be a useful member of the society in the form of affected thumb; normal fore-finger and shape of a house; the symbol of hope and optimism in the rising Sun.

Figure 1. NLEP Emblem of Leprosy

Learning outcomes

At the end of the chapter they learner should be able-

- To learn about the genesis and objectives of the programme.
- To learn about the elimination strategies.
- To know about the basic activities under elimination strategy.
- To know about activities currently going on under the programme.
- To appraise about the programme status.

Main Text

1. Current Status

As per report on March 2015,[4] the overall national prevalence is 0.67/10,000 population. However, few states/UTs (Chattisgarh, Odisha, Chandigarh, D & N Haveli, Delhi, Lakshadweep) have prevalence >1/10,000 population. Grade I and Grade II deformity was 5.18% and 4.61% respectively.

A total of 1.27 lakh new cases were detected during the year 2013-14, which gives Annual New Case Detection Rate (ANCDR) of 9.98 per 100,000 populations. This shows decrease in ANCDR by 7.4% from 2012-13 (10.78). A total of 0.86 lakh cases are on record as on 1st April 2014, giving a Prevalence rate (PR) of 0.68 per 10,000 populations. This shows decrease in PR by 12.8% from 2012-13 (0.78). Thirty three (33) States/ UTs had already achieved the level of elimination i.e. PR less than 1 case per 10,000.

Total 111 (Govt- 60 and NGO- 51) Institutions have been recognised for conducting reconstructive surgery to correct the disability in Leprosy affected person.

2. History of Control Programme in India [5,6,7]

Leprosy control activities began in pre independence era, followed by launching of a national programme and subsequent introduction of several strategies.

- 'The Lepers Act, 1898' was enacted which discriminated the leprosy patients and segregated them socially.
- The first attempt to deal with leprosy as a public health problem was taken up in 1952 by the Gandhi Memorial Leprosy Foundation (GMLF), an institution started under the Gandhi Memorial Trust of leprosy prior to 1955. Domiciliary treatment with Dapsone was given to leprosy cases. A house to house campaign was launched for health education and searching for cases. That was the beginning of Survey, Education, and Treatment (SET) programme. .
- National Leprosy Control Programme (NLCP): In 1955, Govt of India started NLCP with the objectives of early detection of cases and treatment. The treatment was based on Dapsone mono therapy. The programme was operated through vertical units implementing SET. The programme was made centrally sponsored in 1980.
- Multi Drug Therapy (MDT): MDT was introduced in the programme in 1982 following the success of Multi Drug Therapy (MDT) in 2 pilot projects in the country.
- National Leprosy Eradication Programme (NLEP): In 1981 Govt. of India constituted a committee under Chairmanship of Dr M. S. Swaminathan for dealing with the problem of leprosy. On the basis of the recommendation, the National Leprosy Eradication Programme (NLEP) was launched in 1983. The objective of the programme was to eliminate leprosy by 2000 AD. The NLEP was initially taken up in endemic districts and was later extended to all districts in the country from 1993-94 with World Bank assistance.

3. Basic activities of NLEP [8]

- Survey and case detection
- Registration of cases for treatment
- Provision of continuous treatment with Dapsone to all cases and make this treatment accessible to all.
- Education of patients, their families and community about leprosy.
- Correction of deformities through deformity care programme.

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4. Implementation of NLEP

NLEP was implemented through the establishment of the following facilities. [9]

4.1. Leprosy Control Unit (LCU)

LCUs were established in endemic areas to cover a population of 4.5 lakhs. This comprised of one Medical Officer (MO), 2 non medical supervisors and 20 paramedical workers (PMW). Each PMW covered 15-20 thousand population and was expected to examine at least 8,000 persons per year by house to house surveys.

4.2. Survey, Education and Treatment (SET) Centres

The SET centres were established in areas with endemicity of less than 5 per 1,000 population. These were usually attached to the Primary Health Centres (PHC) under the administrative control of Medical Officer (MO) in charge of PHCs. The SET centres were comprised of one PMW for 20-25 thousand and one non medical supervisor for 5 PMWs.

4.3. Urban Leprosy Centres

One urban leprosy centre was established for every 30-40 thousand population.

4.4. Mobile Leprosy Treatment Unit (MLTU)

It was constituted to provide services to leprosy patients in non-endemic areas. Each mobile unit consists of one MO, one non-medical supervisor, 2 PMWs and a driver. Districts were covered in a phased manner and all the districts in the country could be covered only by the year 1996.

5. Elimination of leprosy

5.1. Resolution for global elimination of leprosy

In 1991, the World Health Assembly (WHA) adopted a resolution for global elimination of leprosy by 2000AD. The elimination has been defined as prevalence of <1 case/10,000 population. Many countries could succeed in elimination but 14 countries including India failed in the endeavour. So, the target was reset for these countries to achieve elimination by 2005.

5.2. World Bank supported Project (Phase I)

In 1993, the first World Bank supported Project (Phase I) was introduced in India in order to strengthen the process of elimination. The project supported the vertical programme structure formulated by govt. of India for high endemic districts, and for moderate and low endemic districts MLTUs were established. Although good results were achieved by the end of this phase the extent of leprosy was more than expected.[1]

5.3. Modified Leprosy Elimination Campaign (MLEC)

Modified Leprosy Elimination Campaign (MLEC) activities were undertaken in 1997-1998. Five such campaigns were conducted up to 2004.

5.4. World Bank Project Phase II

World Bank Project Phase II was started in 2001 and completed in 2004. The Project Implementation Plan (PIP) of Phase 2 was categorised into 3 parts-

- Part A: National plan setting out the project design for the country
- Part B: Plan for 8 High Endemic States (MP, Orissa, Bihar, UP, West Bengal, Uttaranchal, Chattisgarh, Jharkhand)
- Part C: Plan for remaining 27 states/UTs.

The strategy towards elimination of leprosy during Phase II were:[10]

- Decentralisation of NLEP responsibilities to states/UTs through State/District Leprosy Societies.
- Integration of Leprosy services with General Health Care System (GHS). During the phase II, most of the NLEP vertical staff and infrastructure has been integrated with GHS. After this integration, the Leprosy services are being provided through all Govt. Hospitals, Primary Health Centres and other health facilities and MDT has been made available in all government health institutions for treating patients free of cost.
- Leprosy training of GHS functionaries.
- Surveillance for early diagnosis and prompt MDT, through routine and special efforts. However, active case finding has been restricted to areas with prevalence more than 5/10,000 population. More reliance has been put on voluntary reporting enabled by IEC effort.[1] Govt. of India has also adopted special strategies like MLEC and SAPEL for early detection and prompt treatment of cases and mass awareness. Under NLEP, leprosy has been classified in the field as Paucibacillary and Multibacillary based on number of skin lesions and nerve trunk involvement. MDTs are available in blister pack, making the treatment patient-centred.

Figure 2. NLEP Classification

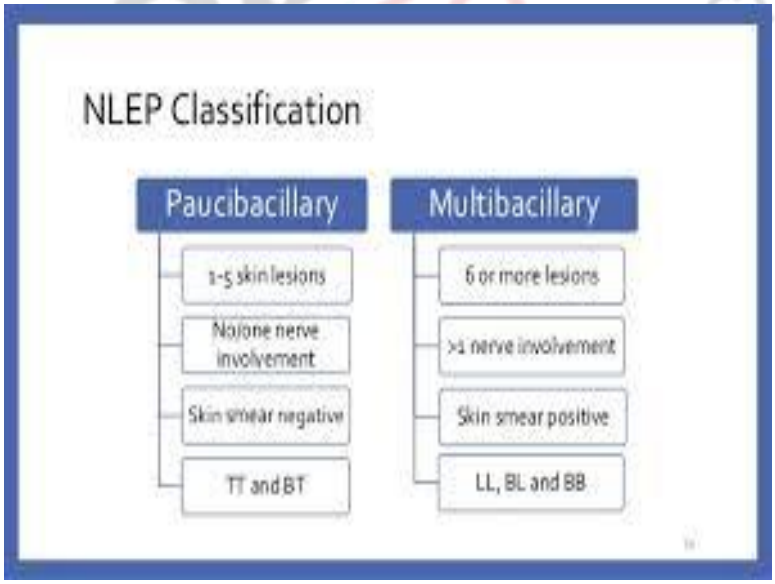
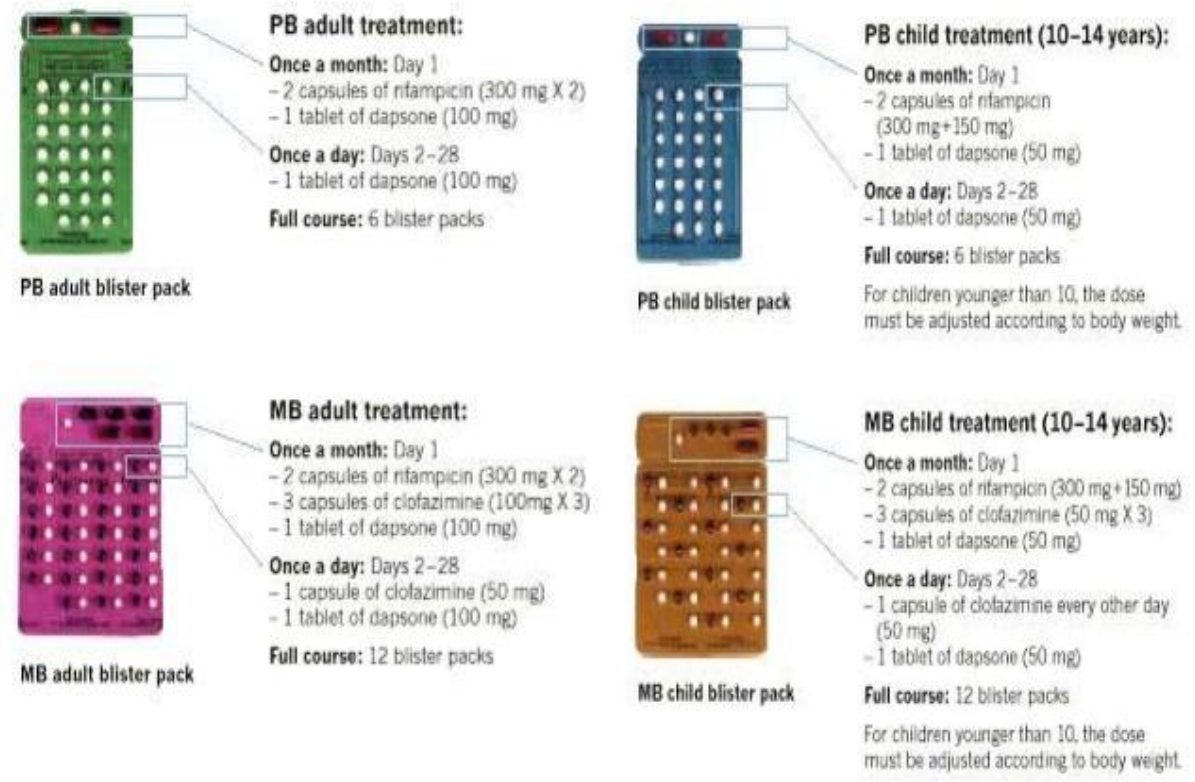


Figure 3. Blister packs for MDT of leprosy



6.**Some definitions:**[1]

- Regularity of treatment: If the patient has taken two thirds of the treatment for any given time period and the interval between doses is not more than 2 months, it is considered regular. Thus 12 monthly doses are completed within 18 months for MB cases and 6 monthly doses within 9 months for PB cases.
- Case holding: Regular attendance of patients is ensured through intensive health education, motivation and default retrieval actions through contact by leprosy workers or by mailing.
- Surveillance: It is done by clinical examination at the time of completion of treatment and subsequently annually for 2 years in PB and 5 years in MB cases.

7. Special efforts for case detection and treatment

Special efforts for case detection and treatment have also been undertaken as elimination strategy:[11]

7.1. Modified Leprosy Elimination Campaign (MLEC)

This was first started in India in 1997-98. The objectives of the programme were:

- To generate mass awareness about leprosy in general population

- Training of GHS staff who were not involved for leprosy service upto that time
- To detect hidden cases of leprosy and put them under MDT.

Five such nation-wide campaigns have been carried out during 1997-98 to 2003-05.These helped in bringing out 9.9 lakh new cases under treatment over a short period of time.[12] This MLEP campaigns resulted in reducing the hidden case load of leprosy, curing patients, averting deformities, reducing transmission potential and increasing self reporting for timely treatment. GHS personnel received an exposure to leprosy cases and MDT programme which facilitated integration of the disease treatment service in the country.[13]

7.2. Special Action Project for Elimination of Leprosy (SAPEL)

This was a special effort for early diagnosis, prompt MDT and intense IEC, specially undertaken in difficult, inaccessible/hard to reach areas or neglected population like tribal areas and also urban slums. These areas/populations were not generally covered by regular programme activities.[1]

7.3. Block leprosy awareness Campaign (BLAC)[14]

In the year 2004-05, Government of India decided to extend focus of attention under National Leprosy Eradication Programme from endemic states to the high priority districts and blocks under special situational plan called Block leprosy awareness Campaign (BLAC). Special measures were taken in identified priority areas on a campaign mode every year during the months of September to November. Increasing awareness of the community for self reporting, detecting hidden cases along with case management, and ultimate aim was to bring down the prevalence rate in these high endemic areas. Activities undertaken during these campaigns were mainly IEC activities and capacity building of service providers. Logistics and trained personnel were made available in all health centres for early diagnosis and prompt treatment.

7.4. Strategic Plan of Action (2004-05)[13]

During the year 2004-05, the programme focus was shifted from States to high and medium endemic districts and blocks.

- Intensified focused action with strong supervisory support in 72 high priority districts with PR > 5/10,000 and 16 moderately endemic districts having more than 2000 leprosy cases detected during 2003-04.
- Increased efforts put on IEC, Training and Integrated Service Delivery in identified high endemic localities.
- In 836 blocks with PR > 5/10,000 as on 31st March 2004, a two week long Block Leprosy Awareness Campaign (BLAC-I) was conducted through Intensified IEC and holding Leprosy Counselling Centres at subcentre level to ensure follow up of under treatment patients.

7.5 Focussed Leprosy Elimination Programme (FLEP)-2005

This was carried out in identified districts/blocks where PR >3/10,000 population in 2005. The activities undertaken were-

- Strengthening IEC, training and integrated service delivery.

- Block Leprosy Awareness Campaign (BLAC II) was conducted through intensified IEC and Leprosy Counselling Centres at Primary Health Centre level. The aim was to ensure follow up of existing leprosy cases, reporting of new cases and capacity building of GHS staff.
- Re-orientation of Medical Officers towards leprosy.

8. Other activities

- Intensification of IEC through local and mass media approaches has been taken up for elimination of leprosy and the stigma associated with it.
- After reaching the elimination status at national level, the next priority has been laid on Disability Prevention and Medical Rehabilitation (DPMR) of all leprosy affected persons.[3]
- Monitoring and Evaluation on regular basis as well as special efforts. NLEP has got In-built information system for monitoring and supervision at all level. SIS was introduced in the programme in 2002 for regular scrutiny of reports. Certain indicators are generated out of these reports and are used in monitoring the program. Calculation and analysis of indicators is done as per government guidelines. Supervisory field visits, review meetings at central, state and district level are being conducted for monitoring and supervision. Leprosy Elimination Monitoring (LEM) exercise was started in 2002-04 jointly by Government of India with World Health Organization, International Federation of Anti-Leprosy Associations (ILEP) in collaboration with the National Institute of Health and Family Welfare. These studies were carried out during 2002, 2003 and 2004. Supervisory field visits, review meetings at central, state and district levels are being conducted for monitoring and supervision. During 2005, supervision and monitoring had been intensified with Supervisory visits from the State / UTs, State / Zonal NLEP Coordinators, District Technical Support Teams (DTST) and State Technical Support Teams (STST) to each and every Primary Health Centre to monitor the programme activities.
- In 2002, National Health Policy set the goal of elimination by 2005.
- In 2002, Simplified Information System (SIS) was introduced in the programme. The aim of this inbuilt monitoring system was to make the whole system of recording, reporting and monitoring easier for GHS staff.
- With the implementation of MDT, the prevalence of leprosy declined from 57/10,000 in 1983 to 24 in 1992, 1.34 in April 2005, and finally to 0.95/10,000 population in December 2005, thus achieving elimination at national level.[1] In 2005, India achieved the milestone goal of leprosy elimination at national level. However, few states/UTs could not achieve the elimination goal.
- After ending of World Bank support in December 2004, the programme is being continued with Government of India fund since January 2005.
- NLEP has been brought under NRHM since 2005.[15]
- Urban Leprosy Control Programme has been introduced in 2005. Leprosy prevalence has been increased over the years in urban areas. The poor health infrastructure with larger population size and migration, the situation has become worse. So, the programme has been started to provide assistance to urban areas having population size of more than 1 lakh. The urban areas are grouped in four categories –Township I, Medium Cities I, Medium Cities II and Mega Cities.[16]
- An internationally agreed agenda 'The Global Strategy for further reducing the leprosy burden and sustaining leprosy control activities (2006 – 2010)' had been endorsed by both WHO and International Federation of Anti-Leprosy Associations (ILEP), for leprosy work throughout the world for the period 2006 – 2010.[17]

9. Support of National Rural Health Mission

- Utilisation of services of Accredited Social Health Activist (ASHA) in
  - early detection of suspected cases of leprosy,
  - referral of such cases to nearest health centre for confirmation
  - completion of treatment.
- Village health & sanitation committee, Rogi Kalyan Samities at PHC, CHC and district hospitals
  - for delivery of quality care,
  - determining the priorities and its solution.
- Rehabilitation: Accessibility of rehabilitation services is the focus of the programme.

10. Post elimination period (2007-12)

The aim and objectives under 11th Plan were: [8]

- Further reducing the leprosy burden in the country
- To provide good quality leprosy services
- To enhance Disability Prevention and Medical Rehabilitation
- To increase advocacy towards reduction of stigma and to stop discrimination
- To strengthen monitoring and supervision.

These objectives were laid in conformity with the global strategy issued by WHO (2006-2010).

10.1. New Paradigm[8]

To sustain leprosy services, there has to be a shift from a campaign like elimination approach towards high quality leprosy services. In addition to case detection and treatment with Multi Drug Therapy, it also includes prevention of disability and rehabilitation.

New Paradigms in NLEP have mentioned the following:

- Burden of leprosy: New indicators for assessing the burden of the disease have been recommended:
  - In leprosy, Incidence is difficult to measure directly. So, New Case Detection Rate (NCDR) is used as a proxy for incidence rate.
  - The burden may be related to the registered prevalence of disease, although it is not an adequate indicator to reflect changes in the epidemiological trend of leprosy.
  - Burden can be viewed as disability and deformity produced by leprosy.
- Improving the quality of services: Quality leprosy services means:
  - Treatment by MDT is available at all the health units without any geographical, economic or gender barriers.
  - Patient –centred services
  - Maintaining patient's rights, including the rights to timely and appropriate treatment
  - Privacy and confidentiality
  - The quality leprosy services address each aspect of case management like
    - timely and accurate diagnosis
    - supportive counselling
    - timely treatment with MDT, free of charge in a user friendly environment
    - appropriate disability prevention interventions
    - referral for complications and appropriate rehabilitation

- maintaining simple records
- Review and evaluation.

- Integration of leprosy services with primary health care system for sustainability.
- Referral services and long term care: The referral network must be part of the integrated system. Referral services needed are:
  - Ophthalmology
  - Physiotherapy
  - Occupational therapy
  - Reconstructive and plastic surgery
  - Social workers
  - Podiatry
- Prevention and management of impairments and disabilities: Interventions includes:
  - Early detection and effective management of leprosy-related reactions
  - Proper counselling on self care
  - Participation of household members in home based care,
  - Development and use of locally produced and culturally and aesthetically acceptable footwear and other appliances.
- Improving community awareness and involvement**:** The objectives of such IEC efforts are
  - Encourage self-reporting of new cases
  - Reduce stigma and discrimination.
- There are four key messages for the general public:
  - early signs of leprosy,
  - its curability,
  - encourage people to support leprosy affected people to live a normal a life
  - no need to fear as disease can be managed just like any of other disease

The 12th Five Year Plan for National Leprosy Eradication Programme (NLEP) for the period 2012-13 to 2016-17 has been approved by Govt. of India.[18] Since the programme aims for eradication i.e. zero case of leprosy as the ultimate goal, sustained control measures need to continue during the 12th plan period.

11. National Leprosy Eradication Programme

11.1. Objectives

- To eliminate leprosy in all districts of the country
- To strengthen Disability Prevention and Medical Rehabilitation (DPMR) of persons affected by leprosy
- To reduce the level of stigma associated with leprosy.

11.2. Targets

Six Indicators	**Baseline (2011-12)**	**Targets (March 2017)**
1. Prevalence rate <1/10,000 population	543 districts(84.6%)	642(100%)
2. Annual New Case Detection Rate <10/100,000 population	445 districts(69.3%)	642(100%)
3. Cure rate Multi Bacillary Leprosy cases	90.56%	>95%
4. Cure rate Pauci Bacillary Leprosy Cases (PB)	95.28%	>97%

5. Gr.II disability rate in percentage of New cases	3.04%	35% reduction
6. Stigma reduction	2010-11 NSS report	50% reduction

11.3. Programme strategy

The main strategies to be followed are:

1. Integrated leprosy services through General Health Care system.
2. Early detection and complete treatment of new leprosy cases.
3. Carrying out house hold contact survey for early detection of cases.
4. Involvement of Accredited Social Health Activist (ASHA) in the detection and completion of treatment of Leprosy cases on time.
5. Strengthening of Disability Prevention and Medical Rehabilitation (DPMR) services.
6. Information, Education and Communication (IEC) activities in the community to improve self-reporting to Primary Health Centre (PHC) and reduction of stigma.
7. Intensive monitoring and supervision at block Primary Health Centre/Community Health Centre.

11.4. Programme components

The following components are approved in the 12th Plan:

11.4.1. Case Detection and Management

Case detection has to be strengthened through improved access to services, involving women including leprosy affected persons in case detection, organising camps, undertaking contact survey, increasing awareness and motivating the community through the ANM, AWW, ASHA and other Health Workers for early reporting to the Medical Officer. Integrated Leprosy Services through all the Primary Health Care facilities will continue to be provided in the rural areas. However for providing technical support to the Primary Health Care system, to strengthen the quality of services being provided, a team of dedicated workers including Medical Officer and other Para-medical worker/supervisor are placed at district level. This will be known as 'District Leprosy Cell'. Management of reaction and neuritis to prevent disability will be taken up at the PHC level, all difficult to manage cases will be referred to District Hospital/ Central Govt. Leprosy institutes /NGO institutions. The special actions to be included in high endemic districts are active search, capacity building of staff, awareness drive, enhanced - monitoring and supervision, validation of Multi Bacillary (MB) and child cases, in campaign mode.

Intensive case detection drive (ICDD) has been undertaken as special activities in high endemic blocks of low endemic districts. In addition to the leprosy services being provided by Govt. Health facilities, other Health facilities in urban areas, that is institutions under the local self Govt., NGO and Private Institutions need to be involved for providing services to the persons affected with leprosy with free supply of MDT in all these Institutions. While the District Administration is the main agency to manage NLEP in the urban areas, an Urban Leprosy Coordination Committee (ULCC) may be constituted comprising of heads of the institutions from all the organisations providing leprosy services. In addition to regular activities like rural areas, some additional activities have to be carried out as per the guidelines (PIP).The ASHAs have been utilised or suggested to be utilised for leprosy work. NGOs and other Agencies can provide services through the Modified SET Scheme which was

revised with effect from 1st April 2004. Under the SET Scheme, the NGOs are presently involved for disability prevention and ulcer care, IEC, referral of suspected cases, referral for RCS, Research and Rehabilitation. NGO support is required to follow up the under treatment cases, particularly in urban locations and in difficult to access areas. Supporting hospitals/ PHCs in this important activity can be done by NGOs. The plan also suggested some areas for operational research.

11.4.2. Disability Prevention and Medical Rehabilitation (DPMR)

Comprehensive DPMR Guidelines for primary, secondary and tertiary level institutions have been developed. DPMR services include:

- Reaction management
- Self-care practices: emphasis is laid on empowerment of patient with self care practices.
- Provision of Microcellular Rubber (MCR) Footwear, Aids and Appliances: MCR footwear is supplied to the patients with insensitive feet by the District cell through PHC/CHC. MCR foot-wear has been provided during the 12thPlan period at the rate of 2 pairs per leprosy affected person having insensitive feet.
- Referral services at District Hospitals and Medical Colleges/Central leprosy/ NGO Institutions including reconstructive surgery. The referral centres has to be supported by Dermatologists/Physicians of the district hospital and a Physiotherapist. All patients with grade II disability diagnosed at the PHC are referred to the District Hospital/ District cell for further assessment and care. Cases suitable for Reconstructive Surgery (RCS) are referred to RCS centres recognised by Govt. of India in Govt. or NGO sector.
- Incentive to the patient: Rs. 8,000/- has to be paid to all persons affected by leprosy undergoing major RCS irrespective of their financial status.
- Incentive to Institutions :
  - To all Govt. Institutions for providing RCS in their own Institution @ Rs. 5000 per RCS.
  - To all Govt. Hospitals/Institutions, providing RCS in camps organised outside the Institution, an additional amount of @ Rs. 5000 per RCS will be paid.

11.4.3. Information, Education and Communication (IEC) including Behaviour Change Communication (BCC)

Different strategies have been advocated for this purpose.

11.4.4. Human Resource and Capacity building

DPMR component has been suggested as major focus in trainings for the Medical Officers and other health workers. ASHA training is crucial in anti-leprosy activities.

11.4.5. Programme Management

Supervision, monitoring and appraisal have been recommended as per approved guidelines.

11.5. Current strategies and activities

11.5.1. ASHA

ASHAs are being engaged at village level under NRHM in the States/UTs. ASHA are being trained for anti-leprosy activities. Training manuals have been developed for this purpose. Job specification for ASHA: [19]

- Refer suspected leprosy case to PHC

- Follow up treatment taken by the case
- Counsel patient on the disease and treatment aspect on confirmation
- Awareness and Education through Inter Personal Communication (IPC)
- Guiding patient on self-care
- Facilitate healthy contact examination
- Take part in special campaigns.

The ASHA will be entitled to receive incentive of Rs 250/ at confirmation of diagnosis and on completion of full course of treatment in time, additional Rs.400/ for PB, additional Rs.600 for MB.[18]

11.5.2. Revised Indicators for Programme Monitoring:[20]

Annual New Case Detection Rate (ANCDR): With elimination of leprosy at the National level and in most of the states and districts, time has come to put in higher emphasis on ANCDR. Being annual, the indicator was not much utilised to assess the epidemiological changes in the programme. In view of the above, Prevalence Rate (PR) was utilised in the programme to measure achievements under NLEP. Further, special measures were taken every year on the basis of PR. Under the SIS guidelines (2002), a quarterly performance assessment format (LF-06) was introduced for use of District and State level. The format has been modified as MLF-06, in which Quarterly NCDR is to be included for assessment and action.

Treatment Completion Rate will be ascertained for:[21]

- PB and MB cases treated.
- PB Male/Female and MB Male/Female cases treated.
- Rural/Urban areas.

The indicator "Treatment Completion Rate" is to be worked out routinely every year during the period May – June. The District Nucleus will collect the Treatment Registers (LF-02) from all reporting centres for onward transmission to central level.

11.5.3. Disability Prevention and Medical Rehabilitation (DPMR)[22]

A large number of cases, who have completed the full course of MDT, also have got different types of deformities and disability due to consequences of permanent nerve damage. Even the cured patients may also develop disability due to negligence in taking care of their anaesthetic lesions. The recognition and management of lepra reactions is the most essential/significant task in the post elimination era because these reactions and nerve function impairment are the major cause of morbidity and disability in leprosy. So, the programme has expanded its activities towards Disability Prevention and Medical Rehabilitation (DPMR). The services are comprehensive care to be provided to all old and new disability cases of leprosy. The guidelines for this activity was developed and circulated in 2007. It is estimated that around one million leprosy patients with disabilities exist in the country. There will be an average of 2000 to 3000 cured leprosy patients with disabilities living in a district. Block CHC will be identified as first referral center for provision of DPMR services.

New goal and indicator have been fixed by WHO.

- The goal is to decrease the rate of disabilities in new cases among 10 lakh population by 35% with comparison to the base line of 2010.

- The indicator is to decrease the visible disabilities to less than 1 per 10,00,000 population in the community by 2020.

The DPMR activities are planned to be carried out in a three-tier system i.e. the Primary level care (First level), Secondary level care (Second level) and the Tertiary level care institutions (Third level).

Primary level:

Rural areas: Village or community level to Community Health Center (CHC) level.

Urban areas: Sub-Divisional Hospitals and Urban Leprosy Centers /dispensaries.

Secondary level: District hospitals and district nucleus team. At some places secondary level care is available in the NGO supported leprosy units.

Tertiary level: This refers to few centers of excellence including medical colleges and RCS centers recognised by Government of India.

11.5.3.1. Primary level

Objectives of DPMR services at primary level:

1. To prevent disability in new leprosy cases,
2. To prevent new disability or worsening of disability in cases under treatment and in the cases who have completed the treatment.

Strategies adopted for Primary level:

1. Empowerment of community, patients and community level functionaries like GKS (VH&SC) to take ownership of eliminating disability in leprosy in their village by increasing the awareness for early self-reporting.
2. Strengthening of capacity of ASHA at village level to suspect early neuritis and reactions in leprosy cases and their referral, monitoring of self-care practices and ulcer dressing carried out by people affected with leprosy himself.
3. Strengthening of Sub center and sector PHC to ensure coordination and supportive supervision of works carried out by ASHA.
4. Strengthening of Block CHC to function as nodal referral centre at primary level to carry out preventive, curative and referral services to prevent new disability and worsening of disability in people affected with leprosy.
5. Simplification of information system in respect of DPMR activities.
6. Provision of materials like MCR foot wear, grip aids, self-care kits, splints for hands and feet, POP, ulcer dressing kits to all needy patients

Activities at Primary level:

1. Early Detection of leprosy and its complications through community empowerment, mobilisation and capacity building of primary level functionaries.

2. Early Referral of disabled cases

3. Diagnosis and treatment.

4. DPMR services: Along with assessment of disability status including identification of cases who are at risk of developing disability, diagnosis and management of leprosy reactions has to be done by

MO PHC. Provision of MCR foot-wear, aids and appliances with referral services for complicated cases has been recommended. Training Manual for Medical Officers has been developed for capacity building. Referral protocols have been developed and circulated. Capacity building of all personnel working at primary level are recommended and being done.

11.5.3.2. Secondary level

District Nucleus (DN) Unit is the main coordination centre for activities under DPMR. The District Leprosy Officer / District Nucleus Medical Officer is the nodal officer of this activity and he is responsible to receive DPMR reports from Primary, Secondary and Tertiary centres on various aspects of the programme. Overall programme planning, implementation, monitoring, supervision and training will be responsibility of DN.

Strategies at secondary level:

- Formation of District Apex Group at District HQ Hospitals headed by Dermatologist / Physician along with specialists of Orthopedics / General Surgery, Ophthalmology, assisted by Physiotherapist and Laboratory Technician, and coordinated and facilitated by MO DN / DLO.
- All District Hospitals will be strengthened with provision of skin smear examination facility and physiotherapy unit.
- Some District Hospitals will be strengthened to provide RCS services.
- Some District Hospitals will be strengthened / outsourced to manufacture customised foot-wears.

Activities at Secondary level:

- Validation and Diagnosis,
- Treatment,
- DPMR Services: Including management of complications, supply of aids and appliances, awareness generation on self care etc.
- Lab. Services.

11.5.3.3. Tertiary level

Objectives for tertiary care centers:

- To provide DPMR services (mainly RCS) with provision of aids and appliances.
- To hold camps and workshops for clearing of backlog of cases in need of RCS and training of surgeons.
- To integrate DPMR/RCS services in to medical colleges, PMR institutes and District hospitals.

Govt. of India identified 90 RCS centres in different states, 49 are Govt. And 41 are NGOs.

Tertiary Level Institutions:

Apex Centres have been identified in different zones of the country.

In South:

- CLTRI, Chengalpattu, Tamil Nadu
- DFIT Hospital, Nellore, Andhra Pradesh
- CMC Vellore, Tamil Nadu
- SLR&TC, Karigiri, Tamil Nadu

In North:

- JALMA, ICMR, Agra, Uttar Pradesh
- TLM Hospital, Naini, Uttar Pradesh
- TLM Hospital, Shahadra, Delhi
- Plastic surgery department, medical college Lucknow

In East:

- PMR Department, Patna Medical College, Bihar
- TLM Hospital, Kolkata
- RLTRI Raipur
- Leprosy Home and Hospital, Cuttack

In West:

- J.J. Hospital, Plastic Surgery Department, Mumbai, Maharashtra
- All India Institute of Physical Medicine & Rehabilitation, Mumbai,

Focus has been laid on Outreach Services for DPMR and RCS through camps. These camps are basically of two types. One is where disabled patients are rendered services as well as patients in need of RCS are identified and referred to nearby tertiary care centre. Another type of camp is for carrying out training of local surgeons at their own set up by sending a team of surgeons and holding the RCS camp in which few demonstration surgeries are performed. Aids and appliances need to be provided.

11.5.4. Information, Education and Communication (IEC)[1,23]

Although eradication is the final goal, the same cannot be announced at this stage because – as maintained by the WHO's Technical Advisory Committees; Leprosy eradication cannot be certified from any region with the available diagnostic and epidemiological tools in hand, as at present. To sustain the achievements made under the programme and also the status of elimination at national level, it is crucial that continuous Information, Education and Communication (IEC) activities should be maintained at a high level of intensity. A vigorous IEC campaign "Leprosy Free India" was launched on 30th January 2008. This day is observed annually as the "Anti Leprosy Day" in India. Various IEC activities particularly for reduction of stigma and discrimination against leprosy affected persons are carried out through mass media, outdoor media, and rural media and advocacy meetings. Priority areas are endemic districts with ANCDR >10/10,000, urban areas with problem of migratory population, tribal areas, and areas with low literacy rate particularly female literacy.[1]

Govt. of India in its 256 Report of Law commission[24] on 'Eliminating Discrimination Against Persons Affected by Leprosy' in April 2015, made a specific provision for repealing of the Discriminatory laws against leprosy affected persons. The Law Commission also recommended the enactment of a

legislation that will promote the social inclusion of Persons affected by Leprosy and their family members through affirmative action.

Involvement of NGOs: NGOs have been playing a crucial role in leprosy control. IEC, DPMR, case detection and referral, follow up for treatment completion and MDT delivery are some important activities. Grants have been allocated to NGOs for these services.

Summary

National Leprosy Control Programme was launched in 1955 with the objective of controlling leprosy through early detection of cases and treatment based on Dapsone monotherapy. Following the successful trial of MDT in treating leprosy, the programme was changed to National Leprosy Eradication Programme (NLEP) in 1983 with the aim of eliminating leprosy. The prevalence of the disease had declined significantly following the use of MDT. The programme was a vertical programme with separate infrastructure and manpower. During the 2nd World Bank Project, the programme was integrated with General Health Care System thereby making all the servicers available in the Govt. Health Institutions free of cost. In 1991, the World Health Assembly (WHA) adopted a resolution for global elimination of leprosy by 2000AD. India got the support from World Bank in two phases to accomplish the goal. The elimination has been defined as prevalence of <1 case/10,000 population. Finally, India achieved the elimination status in 2005 at national level. Few states/UTs could not achieve the elimination target. Besides routine effort for case detection, awareness generation and treatment, special efforts like Modified Leprosy Elimination Campaign (MLEC) and SAPEL, BLAC, FLEP were also undertaken as elimination strategy. Technical guidelines for case detection and treatment were developed. With the completion of World Bank Project in December 2004, the programme is being continued with Govt. of India support. In 2005, the programme was brought under NRHM and ASHAs are being utilized for anti-leprosy services. After elimination, the major focus has shifted to Disability Prevention and Medical Rehabilitation (DPMR) along with other activities for sustenance of the achievements. Guidelines have been developed in this regard. Govt has identified institutions for Reconstructive surgeries, those institutions are being supported by Govt. Aid and appliances like MCR foot-wear have been supplied to rehabilitate the disabled. NGOs have been working in leprosy control since the beginning of the programme, mainly focusing their activities on case detection, MDT supply, referral, follow-up and prevention of disabilities in difficult areas. Intensification of IEC has been continued as emphasis has been laid more on passive reporting. More emphasis is laid on new indicators like ANCDR, treatment completion rate etc for monitoring and evaluation of the programme. New targets and indicators have been determined in 12th plan and operational guidelines have been developed.

References

1. Taneja DK. National Leprosy Eradication Programme. In: Health Policies and Programmes in India. Banerjee B (Ed), 12th edition. New Delhi 2015: 190-95.
2. National Leprosy Eradication Programme, Annual Report(2012-13), M/OH&FW, Govt. of India, New Delhi . p.92-94.
3. NLEP. Available from:http://nlep.nic.in/index.html.
4. NATIONAL LEPROSY ERADICATION PROGRAMME. Monthly Progress Report for the year 2014-15. Available from: http://nlep.nic.in/pdf/MPR%20%202014-15.pdf.
5. Dogra S, Narang T , Kumar B. Leprosy - evolution of the path to eradication. Indian J Med Res 2013;137: 15-35.
6. National Leprosy Eradication Programme, Annual Report (2012-13)M/OH&FW, Govt. Of India, New Delhi.P.92-94.
7. Textbook of Public Health and Community Medicine .Chief Editor. First Edition 2009.P. 524-28.
8. Annexure I NLEP. Available from ***nlep***.nic.in/.../Annex%20I%20%20National%20Leprosy%20***Era***dication.
9. Park 's Textbook of Preventive and Social Medicine, K. Park,15th Edition. P:303.
10. Annual Report (2008-09), M/OH & FW, Govt. Of India, New Delhi. P: 99-105.Available from:http://mohfw.nic.in/WriteReadData/l892s/1314789444Elimination%20Strategy.pdf)
11. Elimination Strategy. Available from: http://mohfw.nic.in/WriteReadData/l892s/1314789444Elimination%20Strategy.pdf
12. National Leprosy Eradication Programme, Annual Report (2011-12), M/O H&FW,Govt. of India, New Delhi p. 104-107
13. Dhillon GPS, Barkakaty BN. NATIONAL LEPROSY ERADICATION PROGRAMME IN INDIA: ACHIEVEMENTS AND DEFICIENCIES. Health Administrator Vol : XVIII : 4-7.
14. Block leprosy awareness Campaign NLEP.nlep.nic.in/pdf/Annex%20-IX%20BLACpdf.
15. http://nlep.nic.in/about.html
16. Govt. of India (2010).Annual Report 2009-2010, DGHS, Ministry of Health and Family Welfare, New Delhi.
17. World Health Organization. Global Strategy for Further Reducing the Leprosy Burden and Sustaining Leprosy Control Activities 2006-2010 Operational Guidelines. Available from: www.who.int/lep/resources/SEAGLP20062.pdf
18. Guidelines- National Leprosy Eradication Programme Implementation Plan (PIP) fo12th Plan Period(2012-13 to 2016-17)DGHS,MOH & FW,GOI. Available from: nlep.nic.**in**/guide.html
19. Handouts for ASHA training Available from: http://nlep.nic.in/pdf/Handout%20for%20ASHA%20(2013).pdf)
20. http://nlep.nic.in/pdf/Guidelines_Quarterly_ANCDR.pdf.
21. http://nlep.nic.in/pdf/Guidelines%20_Treatment_completion.pdf.
22. National Leprosy Eradication Programme, Disability Prevention & Medical Rehabilitation. Guidelines for Primary, Secondary and Tertiary Level Care Disability Prevention & Medical Rehabilitation. Available from: http://nlep.nic.in/pdf/Guidelines%20for%20Primary,%20Secondary%20and%20TLC%20(Atul%20Shah%2024.7.2012.pdf.
23. NLEP – Plan for IEC campaign towards achieving "Leprosy free India" http://www.nlep.nic.in/pdf/LeprosyFreeIndia.pdf).
24. Government of India Law Commission of India .Report No.256 Eliminating Discrimination Against Persons Affected by Leprosy . April 2015. Available from: http://lawcommissionofindia.nic.in/reports/Report256.pdf