

NATIONAL LEPROSY ERADICATION PROGRAMME

History

Leprosy is one of the oldest diseases known to mankind. The first evidence of leprosy like disease was recorded in Egypt in 1400 BC. There is a clear description of leprosy in the Susrutha Samhita of the 600 BC.

The Disease

- Primarily affects skin, mucous membranes and peripheral nerves. The public health importance of Leprosy lies in its capacity to produce deformities as well as social & psychological disabilities.
- Leprosy is caused by Mycobacterium Leprae, which morphologically resembles Mycobacterium Tuberculosis. The reservoirs of leprosy is/are infectious leprosy patient(s) who are not taking Multi Drug Therapy (MDT) and is in prolonged contact with healthy persons. Only less than 20% of leprosy patients are of infectious type and with modern Multi Drug Therapy, these patients become non-infectious very rapidly. Even single dose of MDT kills 99.9 % leprosy bacilli under laboratory conditions. There is no threat of disease transmission if the patient is taking treatment at home. It takes only six months to one year of complete treatment with MDT to cure pauci-bacillary and multi-bacillary type of patients respectively. Leprosy bacilli have very weak potential of causing the disease and they multiply very slowly as compared to most other bacteria. Under the programme, domiciliary treatment is advised. Leprosy deformity is not associated with infectivity of the disease and the patients seen with mutilated hands/feet etc. are mostly old already treated cases with no active disease and thus do not transmit infection.

The Myths & The Facts About Leprosy

- Two common beliefs about leprosy – that it is hereditary and that it spreads by touch – are unfounded myths. It is neither hereditary nor does it spread through casual touch.

- Leprosy is the least infectious of all the communicable diseases. It can take years of living in close proximity with an untreated leprosy patient to get the disease.
- 95% people are naturally immune to the leprosy germ.
- Early and regular treatment of leprosy with MDT, available free of cost at all Government health centres and hospitals, completely cures the disease as well as prevents any deformity and patients can live a normal life.
- The ulcers and sores that are seen in old, deformed cases of leprosy are not signs of active disease. They result from damage done to insensitive hands, feet and eyes due to lack of proper care. Such people are old, burnt - out and mostly cured leprosy cases and therefore do not transmit the disease.
- The word "Leper" should no longer be used in any context. It signifies an old – fashioned and discriminatory approach to leprosy patients. The modern approach is to consider leprosy patients like any other person suffering from a communicable disease, so that they continue to lead a normal life within the community.

NATIONAL LEPROSY ERADICATION PROGRAMME

Govt. Of India started National Leprosy Control Programme in 1955 based on Dapsone domiciliary treatment, through vertical units, implementing survey education and treatment activities. It was only in 1970s that a definite cure was identified in the form of Multi Drug Therapy. The MDT came into wide use from 1982, following the recommendation by the WHO Study Group, Geneva in October 1981. Govt. of India established a high power committee under chairmanship of Dr. M.S. Swaminathan in 1981 for dealing with the problem of leprosy. Based on its recommendations the NLEP was launched in 1983 with the objective to arrest the disease activity in all the known cases of leprosy. However coverage remained limited due to a range of organizational issues and fear of the disease and the associated stigma. Districts were covered in a phased manner and all the districts in the country could be covered only by the year 1996. At this stage in view of substantial progress achieved with MDT, in 1991 the World Health Assembly resolved to eliminate leprosy at a global level by the year 2000. In order

to strengthen the process of elimination in the country, the first World Bank supported project was introduced in 1993.

The 1st Phase of the World Bank supported Project started from 1993-94 where the project supported the vertical programme structure formulated by Govt. of India (GOI) for the high endemic districts, while in the moderate and low endemic districts Mobile Leprosy Treatment Units (MLTU) were established. The Project was completed on 31.3.2000 with further 6 months extension to complete the preparation of proposal for 2nd Phase Project. This Project involved a cost of Rs. 550 crores of which World Bank loan/ assistance/ reimbursement was Rs. 292 crores. During this phase, against a target of 2 million cases 3.8 million leprosy cases were newly detected and on the whole 4.4 million leprosy cases were cured with MDT. The prevalence rate reduced from 24/10,000 population in 1992 before starting 1st Phase project to 3.7/10,000 by March 2001 and the disability grade-II & above reduced to 2.7% from 7% whereas the MDT coverage of registered cases increased from 62% to 99.5%.

The 2nd Phase of World Bank Project on NLEP started for a period of 3 years from 2001-02, involving project cost of Rs. 249.8 Crore including World Bank assistance/ loan of Rs. 166.35 Crore and WHO to provide MDT drugs free of cost worth Rs. 48.00 crore. This phase was implemented with the **objectives** towards -

- (i) **Decentralization** of NLEP responsibilities to States/ UTs through State/ District Leprosy Societies.
- (ii) Accomplish **integration** of leprosy services with General Health Care System (GHS) and
- (iii) Achieve **elimination** of leprosy at National level by the end of the Project

This 2nd phase of NLEP also **aimed** to detect 11.0 lakh new leprosy cases and cure 11.5 lakh leprosy cases with MDT while reducing the disability rate to 2% among new leprosy cases.

Well planned activities were efficiently implemented in close association of various NLEP **partners** viz. State & UTs Governments, World Bank, WHO, ILEP, DANLEP, NGOs and Community, Pvt. Medical Practitioners and various concerned Govt. Ministries/Departments such as Information & Broadcasting,

Social Justice & Empowerment, Education, Railways, Defence/ paramilitary, Labour and Industries etc.

The 2nd National Leprosy Elimination Project successfully ended on 31st December' 2004.

A system of monitoring of the programme was started in the form of Leprosy Elimination Monitoring (LEM) exercise jointly by Govt. of India with World Health Organization (WHO), International Federation of Anti-Leprosy Associations (ILEP) in collaboration with the National Institute of Health and Family Welfare. These studies were carried out during the year 2002, 2003 and 2004. During the last two years a component of validation of case diagnosis was introduced.

These studies clearly indicated high level of operational factors like wrong diagnosis, re-registered cases and even non-existent cases being recorded in the districts and treated as leprosy. Validation-2004 indicated that such operational factors contributed about 33.3% of the cases recorded as leprosy.

A survey to monitor performance at close of the 2nd National Leprosy Elimination Project was carried out during April-May 2005 through an independent agency the Indian Institute of Health Management & Research, Jaipur.

MILESTONES UNDER NLEP

- 1955 - Govt. of India launched National Leprosy Control Programme.
- 1970s - It was only in 1970s that a definite cure was identified in the form of Multi Drug Therapy. However the National programme remained with Dapsone treatment.
- 1981 - Govt. of India established a high power committee under chairmanship of Dr. M.S. Swaminathan in 1981 for dealing with the problem of leprosy.
- 1982 - The MDT came into use from 1982, following the recommendation by the WHO Study Group, Geneva in October 1981.

- 1983 - Based on its recommendations of the Swaminathan Committee, the National Leprosy Eradication Programme (NLEP) was launched in 1983 with the objective to arrest the disease activity in all the known cases of leprosy.
- 1991 - At this stage in view of substantial progress achieved with MDT, in 1991 the World Health Assembly resolved to eliminate leprosy at a global level by the year 2000.
- 1993-2000-The 1st phase of the World Bank supported National Leprosy Elimination Project was implemented successfully.
- 1998-2004-The National Leprosy Eradication Programme introduced the Modified Leprosy Elimination Campaign activities in the year 1997-98. Five such campaigns were conducted upto the year 2004.
- 2001-2004-The 2nd phase of the World Bank supported National Leprosy Elimination Project was started from 2001 and completed in December 2004.

MODIFIED LEPROSY ELIMINATION CAMPAIGNS UNDER NLEP

Modified Leprosy Elimination Campaign (MLEC) approach was first started in India during 1997-98 with the objective to generate mass awareness about leprosy in the General Population, to give training to the General Health Care Service staff who were not involved for leprosy service delivery so far and to detect the hidden leprosy cases in all the States/ UTs and to put them under Multiple Drug Therapy (MDT). The campaign was a roaring success and helped in detection of as high as 4.5 lakh new leprosy cases who received treatment with MDT immediately.

The Second Modified Leprosy Elimination Campaign was carried out in the country during the year 1999-2000 with similar objective. The case detection campaign strategy was however different in which active case detection through house to house search for 6 days was done in 5 States viz. Bihar, Madhya Pradesh, Orissa, Uttar Pradesh and West Bengal. In the 7 States of Andhra

Pradesh, Assam, Gujarat, Maharashtra, Karnataka, Kerala and Tamilnadu case detection was passive through voluntary reporting centers, for 2 days. The campaign resulted in detection of about 2.14 lakh leprosy cases and their immediate treatment with MDT.

The Third Modified Leprosy Elimination Campaign was carried out during the year 2001-02. Although the objective was similar to the previous two MLEC, during this campaign states were divided into 4 groups for case detection during the campaign. Active detection through house to house search was carried out in states viz. Bihar, Chhattisgarh, Jharkhand, UP, West Bengal and Dadra & Nagar Haveli. In 4 states viz. Madhya Pradesh, Orissa, Uttaranchal and Tamilnadu case detection was mix of Active Search and Voluntary Reporting Centre (VRC) type in different areas as decided by the States.

In 18 other states only VRCs were opened for 2 days for cases detection, while in States/ UTs where elimination have been achieved only passive detection was done. The campaign resulted in detection of about 1.65 lakh leprosy cases and their treatment.

The Fourth Modified Leprosy Elimination Campaign was planned for the 2nd year of the World Bank supported Second National Leprosy Elimination Project and carried out during the year 2002-03 with slightly different strategies and approaches. Case detection through mix of Active Search & VRC were carried out in 8 endemic states of Bihar, Uttar Pradesh, West Bengal, Jharkhand, Chhattisgarh, Madhya Pradesh, Orissa and Uttaranchal. In 14 moderate endemic states case detection was through 2 days of VRC and in the remaining 13 States/ UTs only Passive recording of cases were done. IEC campaign and orientation training to General Health Care staff was common in all groups of States/ UTs. The campaign resulted in deletion of about 1.0 lakh leprosy cases and their treatment with MDT.

The Fifth Modified Leprosy Elimination Campaign was considered necessary in 8 endemic states of Bihar, Jharkhand, Chhattisgarh, Uttar Pradesh, West Bengal, Maharashtra, Andhra Pradesh and Orissa. The same was planned

and carried out between February and May 2004. The campaign resulted in detection of 0.6 lakh new leprosy cases and their treatment.

Results

New cases detected during the five MLECs that were put under treatment with MDT :-

MLEC	Year	No. of New Cases Detected
I	1997-98 (Jan.Mar.'98)	88510
	1998-99 (April-Sept.'98)	362288
II	1999-2000 (Jan.-Mar.'00)	213732
III	2001-2002 (Oct.'01-Feb.'02)	164970
IV	2002-2003 (Aug.'02-Mar.'03)	104184
V	2003-2005 (Feb.'04-May'04)	57351
	Total	991035

These Modified Leprosy Elimination Campaigns not only helped in bringing out 9.9 lakh new leprosy cases for treatment and cure in a short period of time, but also in increasing leprosy awareness amongst the masses to a high level ; which contributed in bringing out hidden cases of leprosy under treatment and reducing stigma to the disease. Further these campaigns helped in capacity building of the General Health Care Staff for their skill development in case detection which contributed to better performance under the integrated leprosy services provided by the Primary Health Care facilities.

ELIMINATION STRATEGY

- I. The National Leprosy Eradication Programme envisaged the following **strategy** towards Leprosy Elimination In India from the year 2001 : -
 1. Decentralization of NLEP to States & Districts
 2. Integration of leprosy services with General Health Care System
 3. Leprosy Training of GHS functionaries
 4. Surveillance for early diagnosis & prompt MDT, through routine and special efforts

5. Intensified IEC using Local and Mass Media approaches
6. Prevention of Disability & Care

II. Strategic Plan of Action (2004-05)

During the year 2004-05, the programme focus was shifted from States to high and medium endemic Districts and Blocks. A strategic plan of action was drawn up with the following focus :-

- (a) Intensified focused action with strong supervisory support in 72 high priority districts with PR > 5/10,000 and 16 moderately endemic districts but with more than 2000 leprosy cases detected during 2003-04.
- (b) Increased efforts put on IEC, Training and Integrated Service Delivery in identified high endemic localities of 86 medium priority districts.
- (c) In 836 blocks in the country with PR > 5/10,000 as on 31st March 2004, a two weeks long Block Leprosy Awareness Campaign (BLAC-I) was conducted through Intensified IEC and through Leprosy Counseling Centres at subcentre level during the period October-December 2004 to ensure follow up of existing leprosy patients and self reporting of new cases.

The outcome of the strategic plan of action (2004-05) were very encouraging as indicated below :-

Indicators	March 2004	March 2005
States achieved elimination	17	24
Districts with PR > 5/10,000	72	7
Blocks with PR > 5/10,000	836	150

III. Focused Leprosy Elimination Plan (FLEP-2005)

Priority areas were identified in March 2005 taking PR > 3/10,000 population as the cut off point. A total of 42 districts & 552 blocks were identified. A Focused Leprosy Elimination Plan (FLEP-2005) was carried out during Sept.-Oct. 2005 with the following activities :-

- (a) Focused action with strong supervisory support in 42 high priority districts with PR > 3/10,000 located in 7 endemic states.
- (b) Increased efforts put on IEC, Training and Integrated Service Delivery in the high endemic districts.
- (c) In 552 blocks in the country with PR > 3/10,000 as on 31st March 2005, a two weeks long Block Leprosy Awareness Campaign (BLAC-II) were conducted through Intensified IEC and Leprosy Counseling Centres at Primary Health Centre level during the period Sept.-Oct. 2005 to ensure follow up of existing leprosy patients, reporting of new cases and capacity building of the GHS staff.
- (d) All M.Os in these 552 blocks received 1 day re-orientation during BLAC-II.

IV. Intensified Supervision And Monitoring

The months from September to December 2005 were utilized for Intensive Supervision of Programme activities in all the States and UTs. Supervisory Officers from the State / UTs, State / Zonal NLEP Coordinators, State District Technical Support Teams (DTST) and State Technical Support Teams (STST) were advised to visit each and every Primary Health Centre to monitor the programme activities. Such supervision ensured regular treatment to patients, followup of patients irregular in taking treatment and availability of MDT at all level. Supervisory officers also looked into the operational factors in the visited health centers and initiated action to remove them.

The specific actions indicated above resulted in quickening the process of leprosy elimination in the country during the years 2004 and 2005.

Current Leprosy Situation in India

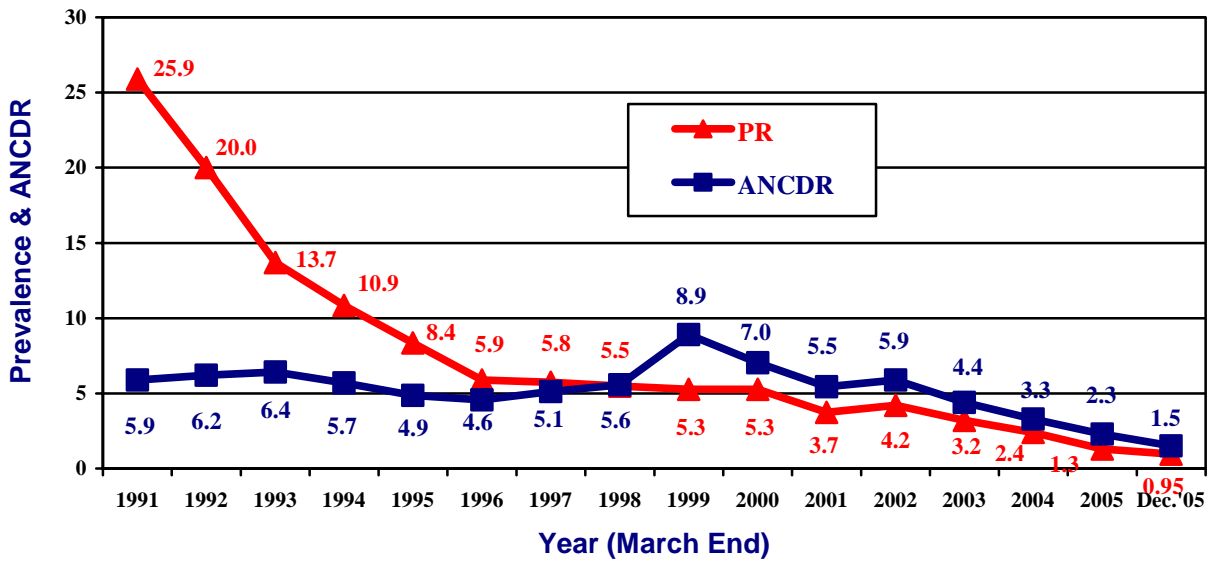
The World Health Assembly in May 1991 adopted a resolution for global leprosy elimination by the year 2000. In the year 2001, after the global elimination was achieved, a target was reset for the remaining 15 countries to achieve elimination on national basis by December, 2005. India was one of these countries. The National Health Policy 2002 also set the goal of leprosy elimination in India by the year 2005.

The National Leprosy Eradication Programme took up the challenge with the active support of the State/ UT Governments and dedicated partners in the World Health Organisation, the International Federation of Anti Leprosy Associations (ILEP), the Sasakawa Memorial Health Foundation & the Nippon Foundation, NOVARTIS, DANLEP (1986-2003) and the World Bank (1993-2004).

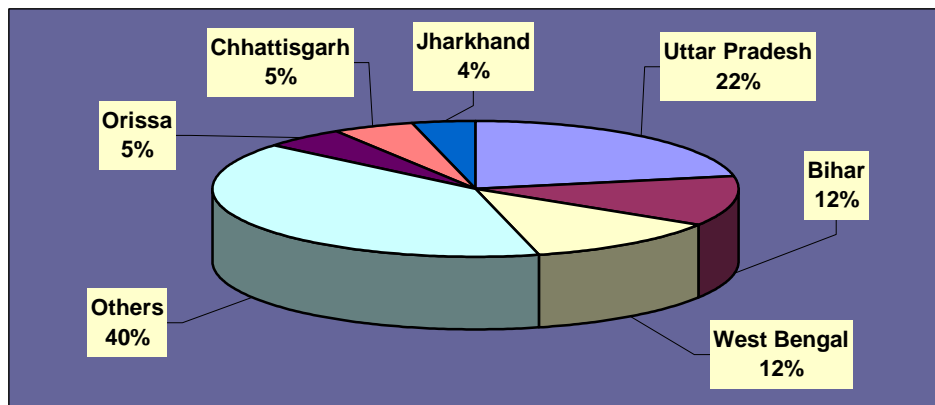
As a result of the hard work and meticulously planned and executed activities, the country has achieved the goal of elimination of leprosy as a public health problem, defined as less than 1 case per 10,000 population, at the National Level in the month of December, 2005. As on 31st December 2005, Prevalence Rate recorded in the country was 0.95/10,000 population.

- The year 2005-06 started with 1.49 lakh leprosy cases on record as on 1st April 2005 giving Prevalence Rate (PR) of 1.34 cases per 10,000 population.
 - **As on 31st December 2005, leprosy cases on record comes down to 1.07 lakh giving Prevalence Rate of 0.95 cases per 10,000 population. Less than 1 case per 10,000 population is considered as the level of elimination as a public health problem.**
- New Leprosy Cases Detected during the year 2004-05 were 2.60 lakh giving the Annual New Case Detection Rate (ANCDR) of 2.34 per 10,000 population.
 - **New Cases Detected between April to December 2005 were 1.27 lakh which gives a projected ANCDR of 1.50 per 10,000 population during 2005-06. This shows a reduction of 35% in New Case Detection over the previous year.**
- Twenty Four States/ UTs had achieved the elimination level by March 2005. These were Nagaland, Haryana, Meghalaya, Himachal Pradesh, Mizoram, Tripura, Punjab, Sikkim, Jammu & Kashmir, Assam, Manipur, Rajasthan, Kerala, Arunachal Pradesh, Daman & Diu, A & N Islands, Pondicherry, Gujarat, Karnataka, Tamil Nadu, Lakshadweep, Andhra Pradesh, Uttaranchal and Madhya Pradesh.
 - **Two other States viz. Maharashtra and Goa achieved elimination level in September and November 2005 respectively, bringing the total to 26 States/ UT that have attained the level.**

Trend of Leprosy Prevalence & Annual New Case Detection Rates in India



- As on 1st April 2005, there were 7 States viz. Bihar, Chhattisgarh, Jharkhand, Maharashtra, Orissa, Uttar Pradesh and West Bengal with PR between 1 and 4 per 10,000 population. These 7 States with 50% of country's population also contributed 73% of the case load.
- The status on 31st December 2005 is that there are 6 States viz. Bihar, Chhattisgarh, Jharkhand, Orissa, Uttar Pradesh and West Bengal with PR between 1 and 3 per 10,000 population. These 6 States with 41% of country's population now contribute 60% of the country's case load.



- As on 1st April 2005, there were 4 other States/ UTs viz. Chandigarh UT, Goa, Dadra & Nagar Haveli and Delhi with PR between 1 and 4 per 10,000 population. But these States/ UTs have the problem of migratory patients from

neighbouring States coming for treatment in their hospitals and as such, the prevalence recorded by these State/ UTs do not represent local endemicity.

- **As on 31st December 2005, 3 State/ UTs viz. Chandigarh UT, Dadra & Nagar Haveli and Delhi have PR between 2 and 3 /10,000 population.**
- Out of 596 districts in the country, a total of 337 districts (56.6%) achieved elimination level by March 2005. There were only 9 districts with PR more than 5/10,000.
- **As on 31st December 2005, a total of 411 districts (68.96%) achieved elimination, where as only 2 districts have PR more than 5/10,000. These 2 districts are in Delhi catering to migratory patients attending bigger hospitals.**

Leprosy Treatment

Since the early 1980s, MDT has revolutionized the treatment of leprosy. It is a combination of the drugs – Rifampicin, Clofazimine and Dapsone and is virtually a guaranteed cure of leprosy as even a single dose of MDT kills 99.9% of leprosy germs.

There are no significant side effects of MDT within prescribed doses and a leprosy patient ceases to be infectious within a few months of starting the course of treatment.

MDT is now available free-of-cost on all working days at all Sub – Centres, Primary Health Centres, Govt. Dispensaries and Hospitals in the country.

NLEP PROGRAMME STRATEGY FOR THE FUTURE

- To continue the efforts to achieve elimination of leprosy through existing MDT services in the remaining districts and blocks.

- Focused attention on :-

- ***Endemic Districts***

As on December '05, district endemicity are as below :-

Districts with PR < 1 – 410 (68.8%)

Districts with PR 1-2 – 138 (23.2%)

Districts with PR > 2 – 48 (8.0%)

Apart from endemic districts the programme put specific emphasis on endemic blocks.

- ***Endemic Urban Localities***

Urban areas like Delhi, Chandigarh still have PR higher than 2, which require attention. In other urban localities also prevalence is generally higher than the surrounding rural areas. Although at present diagnostic and treatment services for leprosy are available in all urban areas, this will be strengthened further.

- ***Districts showing high disability rate***

High disability rates reflect delays in diagnosis of leprosy cases, at present disability grade II proportion in new cases is 1.8% at National level. However some States/ UTs are having higher disability rate i.e. 2.14 in Tamilnadu, 3.34 in Madhya Pradesh. District-wise situation of these states will be examined and necessary measures initiated to ensure early detection of leprosy cases.

- ***States with High Child Proportion***

Child proportion among new cases detected stands at 10.2% at National level. Higher proportions are reported from states like Andhra Pradesh (12.2%), Bihar (16.2%), Gujarat (12.5%), Jharkhand (12.7%), Kerala (12.5%), Maharashtra (12.0%), Tamilnadu (17.2%) and Pondicherry (16.1%). Analysis in these states have to be done district-wise and block-wise so as to take suitable remedial actions.

- To increase institutions for providing Reconstructive Surgery Services to leprosy disabled persons.

- To continue capacity building efforts to all categories of staff whose involvement in the programme is essential.
- To continue to increase awareness about leprosy among the masses with aim to bring attitudinal changes and remove stigma against the disease.

There is no place for complacency at any level. The programme is scheduled to progress as at present for some more years to reduce prevalence in the remaining areas and to avoid any possible recurrence of the disease in areas where success has already been achieved.

The Key Messages for the public

- i. Leprosy is the least infectious of all infectious diseases, and it does not spread through casual touch.
- ii. Leprosy is caused by a germ; it is neither hereditary nor due to curse of God.
- iii. Leprosy has a long incubation period.
- iv. A pale or copper colored, patch (es) on the skin with numbness or a change in colour and texture of the skin (smooth, oily, shiny, reddish skin) may be due to leprosy. Consult the Health Worker/Doctor at your nearest health center.
- v. Leprosy is completely curable with MDT.
- vi. Early detection and regular treatment with MDT prevents deformities and disabilities due to leprosy.
- vii. MDT is available free of cost at all Govt. health centers/ dispensaries/ hospitals on all working days.
- viii. Social rehabilitation of the leprosy afflicted persons should be supported by all individual to prevent any sort of discrimination.
- ix. Treated leprosy patients can continue to live at home and do normal work.
- x. The former leprosy patients with mutilated hands/feet who received treatment earlier do not suffer from active disease and do not transmit leprosy. They do not need MDT again.

NLEP envisages close partnership with NGOs/VOs. For their more effective involvement in the national endeavor of achieving leprosy elimination, their roles / responsibilities have been redefined in the context of leprosy elimination and integration with General Health Care System.

For any additional information please contact:

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