Strategies for new case detection during integration phase

ALERT - INDIA

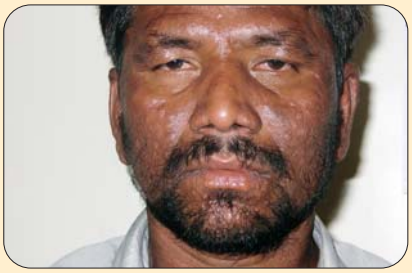
29th Foundation Day

Commemorative National Workshop

11th October 2007

A glimpse of a few new cases of significance detected through LEAP interventions by ALERT - INDIA and LEAP Partners in Maharashtra

At Mumbai



At Mumbai

At Navi Mumbai

At Navi Mumbai

At Thane

At Thane

At Thane

At Thane

At Gondia

At Gadchiroli

We have miles to go . . . before we make leprosy elimination a reality for the people.

Join hands to promote LEAP interventions.

“Strategies for new case detection during integration phase”

National Workshop

11th October 2007

Organised under the auspices of

LEAP
LEPROSY
ELIMINATION
ACTION
PROGRAMME

ALERT - INDIA

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Miles to go . . . .

The reduction in number of new cases should not be mistaken as a success in combating leprosy infection. The gains of MDT era can be easily eroded if a concerted, consistent, countrywide effort is not made to detect and treat all cases of significance. We need a consistent, countrywide strategy to combat the persisting leprosy infection.

Today, we need to define the immediate leprosy control objectives and evolve an action plan that can be monitored in the integrated setup. The primary objective should be to define and adopt feasible, practical new strategies to detect all cases of significance with a community partnership approach. Simultaneously develop and sustain manpower and facilities for prompt diagnosis, treatment and quality care.

This National Workshop was an attempt to explore the options we have in the present socio-economic context and to share ALERT-INDIA experience of LEAP (Leprosy Elimination Action Programme) adopted in response to integration of leprosy into public health.

We invite all those who are concerned about leprosy control in our country to study the experiences, views and recommendations recorded in this report. We are confident that the LEAP experience can pave way to several other new efforts that can make a difference to leprosy control programme and bring better prospects for early detection and cure of the leprosy affected across the country.

30th January 2008
Mumbai - 22

A. Antony Samy
Chief Executive, ALERT-INDIA

Inaugural Session

Strategies for new case detection during integration phase

Chairman: Dr. K. V. Desikan
Co-Chiarman: Dr. P. P. Doke
Chief Guest: Dr. P. L. Joshi
Guests of Honour: Dr. S. G. Damle
Dr. Ashok Ladda
Dr. J. G. Thanekar

Release of Task Today Series No. 4 by Dr. P. L. Joshi, DDG (Leprosy), GOI

Purpose of the Workshop

A. Antony Samy
Chief Executive
ALERT-INDIA, Mumbai

Why do we need to deliberate on the strategies for new case detection today? We need to answer this question from the level of policy, disease control and the human rights perspective.

1. From the policy perspective . . . .

Till 2000, 'early new case detection' and 'prompt treatment with MDT' were the key words in leprosy control programmes. From 2004, almost everyone was 'pushed to think' that accelerating the 'goal of elimination' at all levels is the goal to be achieved. Majority of us acted unquestioningly and achieved the 'acclaimed goal of leprosy elimination', i.e 'less than 1 case per 10,000 population'. This 'achievement' was made possible by operational factors and several policy compulsions.

One definite positive outcome of this 'push' is integration of leprosy services into general health services. This led to the transition from the 'vertical' programme to an 'integrated' programme. This calls for a commonly agreed plan of action for leprosy control. Following last 3 years experience of integration, today, we are willing to look back critically and make midcourse corrections.

Today, the emphasis by the central level authorities has rightly focussed on the efforts for new case detection. We are called to review the National Leprosy Eradication Programme (NLEP) on the basis of new case detection rather than prevalence. This is the backdrop for this Workshop and the specific context for today's deliberations on 'Strategies for new case detection'. This policy perception is further supported by the scientific view of the disease and epidemiological trend.

2. From the scientific perspective . . . .

Achievement of disease control means better knowledge of epidemiological features to tackle the problem. We are nowhere near the situation of knowing the blocks / districts or clusters of disease occurrence. Hence, the incidence of new cases from different nook and corners of the community and among them infectious cases still poses a challenge.

The reduction in transmission means a decline in the proportion of infectious cases (MB smear positive) among the new cases detected. The delayed detection of new MB cases means continuity in the chain of transmission. Additionally, the skin smear examination is the only way to diagnose early infectious cases and this is not available in the routine leprosy control programme, even at the referral level. In this situation, delayed detection of MB cases results in both, continued spread and higher morbidity.

In the present context, we need to develop innovative actions modified to local needs to find new cases and cure them without disability. Detecting leprosy at an early stage is crucial for minimizing the disease morbidity. All these are the hindrance in our effort to effectively control the disease.

We have to find ways to promote early detection and treatment with MDT as it is the most effective method of preventing impairment and disability.

Govt. of India (GOI) has rightly recognized the need for continuity efforts to tackle the disease burden. Disease burden includes new cases and the persons who need services and care due to consequences of the disease. Leprosy cured persons cases living in the community with residual disabilities and deformities are also our concern.

We need a renewed commitment to consolidate the past achievements and plan for the future. This is possible only we fulfil our responsibility towards those whom we have handed over and with whom we are sharing the task of leprosy control in the integrated setting.

There is a crucial need to improve the quality of diagnosis of leprosy by the GHC personnel. Enabling the GHC personnel to diagnose and treat leprosy effectively is one of the important tasks yet to be achieved.

We have made some beginning but infact we need to give greater attention to this aspect. Our CME for the GHC personnel need to be accelerated and sustained to achieve a reasonable degree of success in its reach and depth.

3. From the social perspective . . . .

No public health problem can be solved satisfactorily without the active involvement of the communities served and ignoring the socio-psychological dimensions of the disease. Ignorance, irrational fear and stigmatization in relation to leprosy continue to be one of the obstacles in our way. Community awareness, in general over the past decades, has not yielded the desired results.

We need to find ways and means to enlist the community as a partner. All leprosy affected persons have not only the right for an appropriate treatment, but also the right to be informed, detected, and treated at an appropriate time.

Although the victims of leprosy in the community may be less in number, the late detection results in physical and social handicap due to the sequel of nerve damage. This requires long-term care with multiple interventions. We need to ensure the rights and equity for the leprosy affected persons.

The purpose of this Workshop is to build a common outlook and perspective by exchanging views and experiences. ALERT-INDIA will share the experiences of its Leprosy Elimination Action Programme (LEAP) with you all as a part of this Workshop. Similarly, your valuable experiences are also need to be share.

Our deliberations should lead to a common understanding and action. Integration is the positive asset. We need to build the future of leprosy control work with it.

Thank you !

Downtrend in new case detection in India: what does it mean?

Dr. P. Krishnamurthy
Secretary
Damien Foundation India Trust
Chennai, Tamil Nadu

It has been hailed as one of the biggest achievements in the recent past. While it reflects the can-do attitude that is increasingly and earnestly bandied about as brand India, not everyone is willing to be dazzled by it: it has even spiked the anxiety of a few nonpartisan observers. What I am referring to here is the 'elimination' of leprosy in India. What is really of interest is that after years of frenzied drift-off the huge out performance in the recent years has failed to fuel critical scrutiny especially from those looking for confirmatory evidence. This may be because of the generally prevalent you believe-what-you-see attitude which encourages prevarication and self-indulgence; it does not provide enough leverage to squeeze in pointed questions. But then why should there be dispute if there is no unconfirmed evidence and there is no self-doubt?

The most visible part of elimination is the dramatic drop in new case detection. The fall which has contributed significantly to global decline in new cases has generated a mixed reaction: the turnaround is gleefully acknowledged by programme managers as the inevitable consequence of a job well done; the skeptics have questioned its validity. It is unfortunate that the freefall has succeeded in evoking broadside but has failed to elicit sober debate. The uncommon circumstance and the unexpected result certainly call for critical analysis. Let us look at facts: they speak louder than presumptions.

Several reasons have been trotted out- from academic abstraction to broad-brush, dubious intervention. The downtrend which became evident in 2003 and pronounced in 2004 has not displayed any reversal so far. The annual decline is seen to range from 17% to 35%.

New case detection trend (India and Global & Mass case detection campaigns in India: 1993-2006

Year	India	Global
1993	456,000	590,933
2002	473,658	620,638
2003	367,143	514,718
2004	250,063	407,791
2005	169,703	299,036
2006	139,252	259,017

MLEC / BLAC	Year
MLEC First	1997-1998
MLEC Second	1999-2000
MLEC Third	2001
MLEC Fourth	2002-2003
MLEC Fifth	2004
BLAC	2005

* Weekly Epidemiological Record, WHO: July, 2007

This may look surprising for a programme which had never showed any downward inclination. Critics who are taken by surprise do not see any valid attributable reason other than underreporting of cases. Frivolous and fatuous it may seem, the viewpoint has won its drove of patrons.

Pressure to reach the elimination target and measures (like external validation of all new cases before registration, cleaning of patient registers, deferred or refrained registration on the assertion that symptoms are not clear or the patient had previous treatment even if it was one dose or treated by a general practitioner) supposedly to neutralize operational factors which were ostensibly standing in the way of attaining the objective are unapologetically alluded to by detractors as the causal culprits.

Validation, cleaning of registers and rigid registration practice were reportedly used as strategy to influence prevalence rather than as a tool to improve quality of service. Statistics allegedly became more important than programme and programme became more important than patient; leprosy service was measured in terms of impact on prevalence.

Even though such operational misdemeanors might have been committed by overzealous programme personnel in some places, due to misreading or misinterpretation of messages, leading to a race to reach the target, they could not have contributed to such a massive downslide in new cases.

One has to study the past to understand the present. One has to look prior to 2003 in order to understand the later events. When the first mass case detection campaign (1998) called MLEC unearthed more than 250000 new cases (quite a significant proportion were later proved to be wrongly diagnosed) it did not come as a big surprise to many. Unfortunately it went unexamined, unexplored, uncriticised. Reticence among experts was evident when several such mass case detection campaigns which were held subsequently did not draw even a whimper of protest.

The misgivings expressed by a few critics were brushed under the carpet. The problem was compounded by persistence of active search for cases as a routine by the programme staff. Enormous numbers were detected establishing a high new case base.

There was no thorough critical analysis of the result. It was thus 60 to 70% of the cases were detected by active case detection. About 70 to 80% of the new cases were Paucibacillary in type. In fact in some of the states in the south about 70% of the PB cases were of single lesion! It is not surprising that quite a large proportion of these cases were found to be wrongly diagnosed.

When the contractual staff who were assigned to provide critical support in districts where there was paucity of vertical staff but who were interested in keeping the new cases high for their own personal reasons were retrenched (in a phased manner starting from 2003) and active search was stopped, new case detection started showing the downtrend.

While the number of new cases detected through MLEC showed an incremental decline, new cases detected through the routine activities did not show a perceptible decline till 2003. This coincided with the retrenchment of contractual vertical staff.

There is a plausible relationship between the decline and cessation of active case detection. One cannot expect the programme to have a sustained high level of new cases in the absence of active search. Those aligned on the programme side allege that there was no criticism when new cases were kept inflated through various debatable means but when the drop became discernable it stirred disapproval.

It is pointed out that with the active participation of general health staff there was no longer any need for surveys. Increase in the proportion of MB cases without any corresponding increase in disability among new cases is referred to as an indication that coverage and quality are not adversely affected.

There is, therefore, a strong argument, that merits serious consideration, that the major reason for the dramatic fall in new cases is the cessation of active case detection even though one cannot rule out other operational factors (their contribution cannot be termed consequential).

It is clear that there are several reasons for the sudden and sustained fall in new case detection in India. Some are apparent and others are obscure. Some are tenable, others are tenuous. It is also not easy to quantify the magnitude of the effect of these factors.

Suffice it to say that it is as much insubstantial and arbitrary to attribute totally malafide reasons as it is maliciously intentional to deny the impact of change in intervention for the pronounced drift in case detection.

The most visible impact of the dramatic fall in new case detection is 'elimination'. Perhaps, change in case detection trend would not have generated so much discussion and debate but for its association with elimination.

I am, however, happy that it has happened for two reasons: we can now move away from the relentless barrage of rhetoric coming from either side of the fence and harness the resources towards humanizing the programme; and deny the experts the foothold for legitimizing their perennial arguments. It is time to move the discussion from the mainstream and focus on real issues related to people affected with leprosy.

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New initiatives for improving NLEP performance

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Pune, Maharashtra

Program Performance

The goal of leprosy elimination in Maharashtra State has been achieved in March 2005. However, there was a need to sustain the leprosy control activities in order to consolidate the achievements made so far.

Therefore the programme performance of leprosy control in Maharashtra state focused mainly on the following four important criteria.

1. Improving New Case Detection
2. Make them cure
3. Reduce the Disability and impairment
4. Rehabilitation – Social, Physical, Economical

1. Improving New Case Detection

Following the integration of leprosy control programme, the strategy for new case detection has been to promote voluntary reporting of new cases. It is imperative that the effect of Information, Education and Communication (IEC) activities must result in reducing the time gap between people suspected to have leprosy and in getting diagnosed early and treated with MDT.

Considering the fact that new cases continue to occur, more emphasis is given to improve the new cases detection, by increasing the Inter-Personnel Communication (IPC) through the network of health functionaries working with Govt, NGOs, CBOs & National Rural Health Mission (NRHM) besides the private practitioners. Training of the peers are also planned to undertake to promote referral of suspect cases to the general health care centres.

Efforts were made to increase general awareness about leprosy in the community through extensive audio visual media. Awareness campaigns are also organized through involving corporate sector.

Monitoring of the suspected cases by health staff and case validation by Medical Officer of the District Nucleus Team was done. Special drives for migratory population on par with Block-level Leprosy Awareness Campaign (BLAC) are also undertaken in selected districts.

2. Make them cure

Ensuring the treatment compliance and cure the patient with MDT is crucial for leprosy control. Counseling sessions for the patients and their family is done routinely.

Flexibility in drug distribution is made certain depend on the case load. Tracking of the patient who drops out from the treatment is also done regularly.

3. Reduce the Disability and impairment

It is a well known fact that timely treatment with MDT will help to prevent new deformity. Stress was given on early detection of reactions and proper management with steroid therapy. Functioning and monitoring of Physiotherapy unit at District Hospitals are planned to be strengthened.

Enhancing the knowledge and skills of all the GHC personnel to deliver quality services to leprosy patients was realised through training. Decentralization of the Reconstructive Surgery (RCS) facilities in minimum one district of each division is planned. Introduction of referral card system for the management of complications and services for deformities is planned to improve the quality of care to all leprosy patients.

4. Rehabilitation – Social, Physical, Economical

Rehabilitation services for the leprosy affected persons are an integral component of leprosy control programme. Various community educational activities as well as advocacy activities with the NGOs and other health sector have been initiated for reduction of stigma.

Pursuance for change in discriminatory laws against the interest of leprosy affected persons are made through advocacy meetings. Selection of patients for vocational training was carried out and referred the appropriate patients to the rehabilitation centres.

A comprehensive Disability Rehabilitation Training Institute is proposed to be established at Kondhawa, Pune, where people with disabilities due to causes other than leprosy will also be trained. Piloting herbal medicine plantation under Ayush is in progress.

Conclusion

The Govt. of Maharashtra is working towards achieving a 'leprosy-free' Maharashtra and with a dream of leprosy-free India in the near future. This can be comprehended with the coordinated efforts of all concerned and with the vigorous involvement of the community.

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Strategy for new case detection in India - NLEP Perspective

Dr. P. L. Joshi
Dy. Director General of Health Services

Introduction

In India, leprosy was regarded as a major public health and with the strong political commitment flaunted by the Govt. of India has resulted in achieving the goal of elimination of leprosy at the national level in December 2005. This achievement was possible mainly with the support from the WHO, international leprosy NGOs and donor partners. Since then the National Leprosy Eradication Programme (NLEP) has continued its vigorous efforts in states where elimination has yet to be achieved.

Having achieved the elimination of leprosy as a public health problem at the national level, now the thrust is being given sustain the elimination status and to ensure quality services within the integrated setting of General Health Care system (GHC) in the country.

The quality aspect of services under NLEP is multifold and a long drawn process, however this could only be accomplished by strengthening the general health services and making such services more user friendly.

Strategy for new case detection in India

In order to sustain the goal of leprosy elimination, it is important to detect all new cases of leprosy in the community. Now the strategy for new case detection is focussed towards creating community awareness and educating the individuals, the family and the community in suspecting leprosy and reporting to the GHC systems. It has been realized that analyzing the registered prevalence of leprosy does not reflect the changes in the epidemiological trend and transmission factors.

Instead, the new case detection rate is not influenced by any operational or geographical factors and provides a lead to track the incidence of the disease at every level. Therefore, the GOI has recommended measuring the 'Case Detection Rate' as a proxy for incidence rate and for monitoring the programme regularly on quarterly basis by all the States.

From the NLEP perspective, the following aspects are identified as crucial for providing quality services and to consolidate the gains made so far.

1. Health seeking behaviour
2. Health education to community
3. Accessibility of services
4. Condition of health facilities
5. Diagnostic procedures
6. Information to patients
7. Contact examination
8. Health workers attitude
9. Treatment and compliance
10. Prevention of disabilities
11. Stigma & Socio-economic consequences

1. Health seeking behaviour

Over the past many years, efforts made by the Government of India and state Governments have created a good network of health care delivery system. However because of ignorance and wrong beliefs, people still seek medical remedies from traditional healers. Self treatment by patients' themselves is wide spread particularly in areas where the coverage of public health services is poor. These factors further accentuate the delay in diagnosing the disease.

Misdiagnosis of leprosy by the Medical Officer / Health staff also adds to the problem. The reputation of the health facility can only be enhanced through flexible and patient-friendly health delivery systems. Early detection and complete treatment of leprosy can only be achieved by making the people aware about the facilities and improving the quality of services.

2. Health Education to community

The image of the leprosy over the years had been scaring and thus leading to stigmatisation. Changing the community image of leprosy through information, education and advocacy should be the focus of health education.

Providing information to the community on the early signs and symptoms as well as on the mode of transmission of leprosy is essential to increase awareness about leprosy. Information on availability and effectiveness of MDT should be widely publicized using all relevant and available communication media.

3. Accessibility of Health facility

The reason for poor accessibility by the patients to the peripheral health centres is the costs or loss of a day income. This has also resulted in delay in reporting for follow-up or defaulting when the patient is on long-term treatment. Moreover, long distances to travel for reaching the health care centres also contribute to delay in seeking timely treatment. The peripheral health centers must have flexible timings in opening hours including on weekly holidays. Services need to be made available at the community level by trained volunteers/health functionaries.

4. Condition of Health facilities

Cleanliness and appropriate facilities should be available in all health facilities. Adequate toilet facility and proper seats for the patients and for their families should be made available. Proper rooms and cabins are needed, to provide privacy to the patient, particularly female patients at all health facilities.

5. Diagnostic Procedures

Although the procedure to diagnose leprosy is very simple and mostly based on the clinical, the time delay in diagnosis needs to be minimized. Most importantly, the competence of health workers needs to be enhanced. The health workers must respect client privacy and the examination of patient should be done preferably by the same sex.

In all doubtful cases and whenever any signs of infectious type of leprosy are seen, skin smears or biopsy should be advised with the referral laboratory. The GOI has recommended that the use of skin smears should be limited to referral centers and particularly for diagnosing infectious type of cases or relapse cases and for research purposes.

6. Information to Patients

All the new leprosy patients have the right to receive full information on name, nature,

management and prognosis of their disease. Health workers should provide necessary information to patients. Status of the leprosy patients should only be revealed to other members of the family with his consent. Health staff should develop skills in respect of encouraging patients to ask questions; providing information in an understandable manner; avoiding repetition of information; reassurance of patient and discuss the worries expressed by him or diminish fear related to leprosy.

7. Contact examination

Studies have shown that the household contacts are at greater risk for acquiring leprosy infection and hence examining all the family contacts should be done on priority. Health workers need to give reassurance to the relatives accompanying the leprosy patients by counseling on basic signs and symptoms of leprosy.

8. Health Staff

The attitude of service providers is very important in sustaining quality health care. The health care staff needs to be more kind towards the leprosy affected persons; give respect and emotional support. Personal development of the health care staff would help to maintain their social skills. The health care staff must be sensitive to patient's worries and try to console than to reduce their distress. The body language acts as a useful means to interact with the patient and having conversation with direct eye contact would help in gaining the patient's confidence.

The continuity of health staff at any given centre for a prolonged period will increase the familiarity by the patients and they would like to share their problems. Maintaining simple records on the clinical features of leprosy and other related health problems will help the peripheral health workers to plan appropriate referral services. There is a need to increase the technical competence of the peripheral level health staff to diagnose and treat leprosy and its complications more effectively by organizing task-oriented training.

9. Treatment and Compliance

There is a need to increase patient's confidence on the effectiveness of MDT in order to improve the compliance. Effective counseling is to be given to all new patients to refute traditional notions of incurability and ensure 100% treatment completion. Adequate supply of MDT drugs at all health centres need to be ensured.

The peripheral health staff at the health centres should be adequately oriented on the possible side effects of MDT and should inform the patient to report if any adverse effects occur. Counseling the patients regarding irreversible signs and symptoms of leprosy must be done before starting MDT and assure 'bacterial' cure after completion of full MDT course.

10. Prevention of Disabilities

Disabilities and deformities have kept alive the image of leprosy as an incurable and stigmatizing disease. Therefore, interventions aimed at preventing disabilities and deformities should be an integral part of the leprosy control programme. Health workers are to be trained in activities that are expected to detect early nerve damage and managing leprosy related complications effectively, which would prevent nerve damage.

Referrals from the health centres for the management of complications and appropriate disability services to the leprosy affected persons at Referral Centres need to be

encouraged. Advising the leprosy affected persons on care and protection of insensitive hands, feet and eyes by the peripheral health workers would minimize the disability.

It may be too much to expect from the peripheral health workers to provide appropriate services to a large number of 'backlog' cases needing sustained services. Therefore, a referral services need to be established at the district or block level to provide specialized services. Demonstration on self care and simple dressing for plantar ulcers by the patients' themselves will greatly reduce the recurrence. Teaching and assisting the patients with physical deformities to do regular exercises will help to prevent worsening of deformities.

Provision of locally produced and aesthetically acceptable footwear and other appliances and use of sunglasses will protect the insensitive feet and eyes. Efforts to ensure access for rehabilitation services and welfare schemes available for other disabilities by the Government departments / NGOs should also be available to leprosy affected persons.

11. Stigma & socio-economic consequences

The fear of prejudice and subsequent stigmatization influence the new case finding in two ways. The people who are aware of the effec+tiveness of MDT will rush to obtain MDT from the health care facility. However, those who are unaware of effectiveness of MDT would prefer to hide the disease as long as possible without seeking treatment.

The uncertainty about the acceptance by the family and the community has caused apprehension and concern among the leprosy affected persons about socio-economic consequences. These social consequences have contributed to discrimination of not only those who are affected but also their families as well. Making the MDT services available to all leprosy patients at par with others at all health facilities in the country will help to mitigate or reduce the stigma attached to the disease.

Conclusion

As a strategy for new case detection, the NLEP proposes a broader partnership that will help in mobilizing new expertise and technical resources for implementing innovative strategies at all levels. In addition, a significant number of individuals disabled because of past leprosy will need rehabilitation services, which would require institutional coordination.

The quality aspects of services highlighted here would largely depend on adequate functioning of GHC delivery system, continuous supervision, technical support and monitoring health facilities for diagnose and treatment. Considering the long incubation period of the disease and associated stigma and discrimination against leprosy, it is difficult to make realistic estimate of the burden of leprosy.

The only way to gauze the progress of the programme implementation and slowing of transmission of disease is to improve the quality of services to leprosy affected persons, so that suspected cases report to the health facilities for diagnosis and treatment.

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New case detection and registration after Integration of NLEP into general health care system

Dr. K. V. Desikan
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Integration of leprosy into general health service has been a very important step taken by the Government. Apart from the advantages like reduction in man power, lessening costs, involvement of general duty doctors etc. there is an important subtle benefit to the patients that they are not discriminated due to prejudice. It also induces the general health staff and the community to accept that leprosy is a disease like any other disease and its victims should not be isolated. This has been the dream of all the senior workers and the dream has come true today.

Right from the first Five Year Plan period the Government of India took a positive approach by taking up leprosy as a public health problem and not as just a social problem needing compassion and protection to leprosy patients. It goes to the credit of Gandhi Memorial Leprosy Foundation to undertake a field experiment in control of leprosy by chemotherapy. The success of the experiment made the Government to take it over as a National Policy. The entire country was covered by Leprosy Control Units and SET centres. With effective case detection and prompt treatment with MDT the prevalence of the disease came down by more than 95%. Simultaneously there was remarkable improvement in leprosy consciousness in the society and a considerable reduction of prejudice against the disease.

With a very low prevalence of the disease, the concept of “Elimination” of leprosy came up by the year 2000 which meant the prevalence rate being less than 1 per 10,000 population. It is now a great augury for us that on country level, India has achieved elimination of leprosy.

Elimination does not mean the end. We could expect new cases, although in small numbers. It would be extremely important to detect new cases and register them immediately for treatment. This is an ideal approach. However, it has been our experience that due to short-sightedness of the administrators, new cases are not promptly registered for treatment since it might make the prevalence rate in the district increase the magic figure of 1 per 10,000. I shall enumerate some of our experiences in registration and treatment of newly detected cases in our units.

Experience in Wardha District (Maharashtra)

In Wardha district, in Pulgaon town, 6 new cases were detected during October 2005 while demonstrating the method of rapid enquiry survey to PMW training batch. They were confirmed by the Medical Officer of GMLF and

referred to the JDHS (Lep.). Only 2 cases were confirmed and registered. There was a considerable delay in registering the other cases. It was understood later that cases were registered only in the places of cases made RFT – a sort of "filling up vacancies".

GMLF Control Unit, Chilakalapalli, Vijayanagaram District, (A.P):

After integration, this project delivers IEC & POD/POWD services in the area of 4 PHCs covered by it. New cases identified during the field activities and confirmed by the Medical Officer of the project are referred to the respective PHCs for diagnosis and treatment. However, only a few new cases referred to PHCs are registered for treatment.

In this project, 32 new cases were identified, confirmed by the Medical Officer and referred to PHCs for registration during the period July 05 to March 06. However, only 3 cases were registered. During my visit to this project in February 06, I personally examined these cases and confirmed the diagnosis. Still, there was delay in registration and treatment of these cases. It was only after this matter was brought by me to the notice of the Dy.D.D.G.H.S (Lep), New Delhi and instructions were issued for registration and treatment of new leprosy cases without any delay, that these cases were registered for treatment.

A different experience in Purulia District, (W.B.) :

The GMLF runs an urban and a rural project in Purulia district. In contrast to the above experiences, all new cases are immediately registered and put under treatment in Purulia district. The Zonal Leprosy Officer has organized 30 skin camps, preceded by IEC activities to motivate people to attend the camps, in August - September 2006 with the help of Medical & paramedical staff of PHCs as well as GMLF staff to detect and treat all new leprosy cases. 365 new leprosy cases were detected in these skin camps within a span of 2 monthsand brought under treatment.

A summary of achievements of Purulia district during the years 2004-05 and 2005-06 presented below clearly indicates the positive efforts being made for early detection and treatment of leprosy under integration, which would ultimately lead to real elimination of leprosy soon.

Contrasting expereiences in Purulia district

No. of skin camps – 30
Period of holding camps – Aug-Sep 2006
New cases detected – 365
New cases registered – 365
PR in 2004-05 – 4.9

Annual Data of leprosy cases in Purulia District

Particulars	2004–05	2005–06
Balance cases (end)	1427	1335
New cases (During)	2072	1653
Discharged (During)	2164	2154
Balance (end of year)	1335	834
PR / 10,000	4.9	3.0
NCDR / 10,000	7.6	6.0
PR / NCDR Ratio	0.63	0.5

I have narrated the experiences that are faced in our field projects about delay in registration of new cases of leprosy. I do expect that such problems would not recur in future and the new DDGHS (Leprosy), New Delhi, the JDHS (Leprosy), Pune and Addl. Director (Leprosy), Hyderabad will take care to see that these problems do not arise in future.

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Session 1

Strategies for new case detection during integration phase

Experiences acorss India

Chairman: Dr. P. Krishnamurthy
Co-Chiarman: Dr. P. V. Ranganadha Rao

A section of audience at the Workshop

Recent trend in new case detection in field areas - TLM Centres

Dr. Robins Theodore
Medical Superintendent
The Leprosy Mission Hospital
Vadathorasalur, Vilupuram, Tamil Nadu

'There is a worldwide consensus that in endemic countries, Leprosy services should become an integral part of general health services' – *Abdulla Namadi et al.*

Integration made a breakthrough in the social stigma attached to the disease. Integration is not only cost effective but also highly beneficial to the patients. Integration has significant positive impact – especially accessibility and availability of MDT services.

Since diagnosis and treatment with MDT are simple and since there is a rapid reduction in the prevalence rate, it was felt that continuation of NLEP as a vertical program was no longer cost effective. Therefore, a policy decision was taken in 1994 to integrate the vertical NLEP into the primary health care system. S.Elango (Indian J Lepr Vol 75(4) 2003.

D. Soutar, felt integration can bring effective treatment closer to the patient, can lessen stigma and can certainly strengthen both the capacity and capabilities of general health services – but only if the planning and preparation is thorough

Tamilnadu was the first state in India that integrated the leprosy services into the PHC services with effect from 1st July1997. S.Elango (Indian J Lepr Vol 75(4) 2003.

THE LEPROSY MISSION- INDIA

TLM HOSPITALS

With a network of 18 hospitals located in 10 states of India, TLM religiously promotes this holistic agenda. 114,223 leprosy patients were registered in the OPD, out of which 4,169 were untreated new cases and 7,553 were for 'Care after Cure'. 340,500 general patients were also registered in the OPD.

1,542 reconstructive surgeries and 3,343 ulcer surgeries were done by TLM surgeons. 11,553 pairs of protective footwear were issued to leprosy patients with anaesthestic feet 3,178 patients were treated with steroids for early neuritis and 22,562 patients were taught self-care activities. Six of the hospitals have been upgraded as community hospital, which, by way of integrating leprosy and general medical services, are playing a crucial role in reducing the stigma attached to leprosy.

VOCATIONAL TRAINING CENTRES

TLM has six VTC's located in six states of India. They are located in Andhra Pradesh, Chhattisgarh, Maharashra, Tamil Nadu, Uttar Pradesh and West Bengal.

COMMUNITY-BASED PROGRAMMES

TLM is managing more than 20 time-bound community –based programmes. They cover a wide spectrum of activities, like advocacy, awareness building, economic assistance for starting income generating units, educational assistance, health education, low-cost housing, poverty eradication, prevention of disability, self-care activities for leprosy cured persons, facilitating self-help groups, tribal welfare etc.

TLM VADATHORASALUR

- The Leprosy Mission Hospital, Vadathorasalur is situated in a remote part of Villupuram district of Tamilnadu.
- The hospital started as a home in 1925 later became a Leprosy hospital in 1948.
- Converted to a community hospital in 1998
- After integration we have been diagnosing and refer patients to their nearest PHCs.
- We follow-up referred patients till RFT.
- Registering only those who insist on taking treatment from us.

OBJECTIVE

To assist the government in the integration process by referring 90-95% of patients diagnosed with Leprosy to PHCs and ensures their treatment completion rate of more than 95% within the year through referral and follow-up.

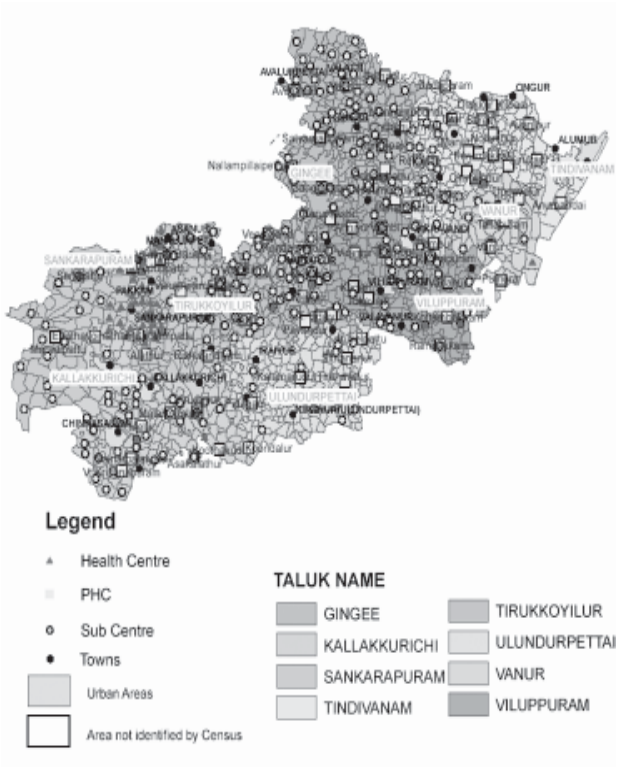
TLM Centres	Total OPD Visit - 2006	New Regd	Care after Cure	Refer to PHC	Revisit	Change 2005 (%)
Barabanki	8,312	608	842	208	6,463	15
Belgaum	2,407	112	191	0	2,089	8
Champa	5,576	185	418	49	4,861	11
Chandkhuri	5,693	342	272	52	4,889	9
Dayapuram	3,279	81	107	22	3,065	0
Faizabad	4,618	231	154	75	4,050	(-) 2
Kolkata	6,296	161	382	0	5,701	(-) 2
Kotara	5,011	134	291	24	4,562	4
Miraj	9,479	50	546	3	8,835	152
Muzaffarpur	8,640	330	1,379	158	6,720	(-) 21
Naini	15,906	822	977	241	13,602	(-) 2
Poladhpur	1,371	26	211	25	1,096	(-) 16
Purulia	12,853	508	627	14	11,440	9
RC Puram	6,394	15	38	4	6,327	11
Saldoha	1,561	174	92	28	1,197	(-) 41
Salur	5,392	122	93	109	5,053	(-) 1
Shadara	6,717	260	431	23	5,953	19
Vadathorasalur	4,718	8	502	105	4,103	22
Total	1,14,223	4,169	7,553	1,140	1,00,006	7

MATERIAL & METHODS (REFERRAL SYSTEM)

1. After handing over the leprosy control area to the Government, we continued to detect cases in the OPD and treat them with MDT. Case detection is purely through voluntary reporting and referral from Govt. and other centres. An initial effort at referral to the PHC was a failure. Patients returned without getting registered so we continued to treat them.

2. With permission from the DLO, a meeting was arranged with the PHC Medical Officers of the district on their monthly review-meeting day. After discussions on integration the following procedures were agreed upon:

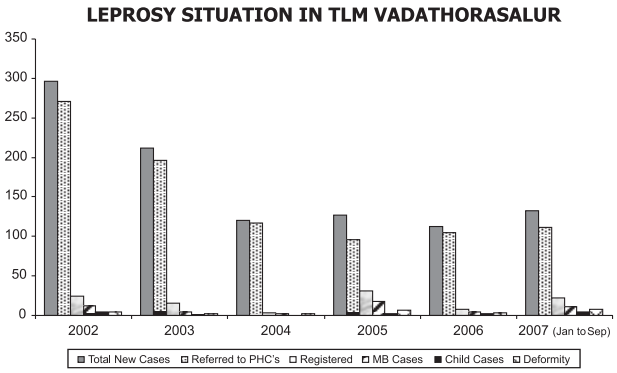
    - Leprosy patients who attend our hospital will be diagnosed, classified, given one months MDT and referred to their nearest PHC with a referral slip and a self addressed post card.

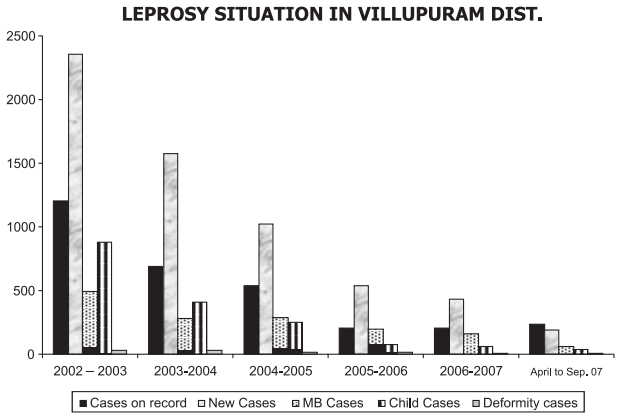


    - Within a month the patient will register in the PHC and post the postcard signed by the Medical Officer or the Pharmacist. These post cards are preserved to know how many of the patients got registered.
    - At the end of the month a report of the cases referred to the various PHCs is sent to the DLO and the concerned PHCs.
    - Cases are verified and confirmed by the DLO and a letter of his visit to the PHCs is copied to us.
    - A request letter is sent to the PHCs at the end of the year to inform the number of patients completed treatment with a copy to the DLO.
    - Number of Patients referred by us who have completed treatment are reported. This is documented.
    - Complicated cases, with reactions, ulcers, correctable deformities and doubtful cases for confirmation are referred by the PHCs for management. This a two way referral system .

3. The system is working very well for the last three years. When new doctors were appointed by the Govt. recently, a training program was conducted and the referral system was once again explained. It is essential to maintain this rapport with the PHC doctors.

4. In OPD MDT, Patient retrieval is very difficult, and in the absence of field workers it becomes almost impossible. Therefore it is better to refer patients to their nearest PHCs, in order to ensure treatment completion.





5. Integration has significant positive impact – especially accessibility and availability of MDT services. Integration made a breakthrough in the social stigma attached to the disease. Leprosy patients in the earlier days had been thrown out of their houses and isolated. Now they were found to be living in their houses with other family members. They are being treated in PHCs and hospitals similar to other patients suffering from other diseases. Therefore integration is not only cost effective but also highly beneficial to the patients. It is a milestone in leprosy elimination.

VILLUPURAM DISTRICT

There are 80 HCs in Villupuram district distributed in two HUDs (Health Unit Division, Kallakurichi and Villupuram)

IEC ACTIVITIES (DISTRICT)

1. Folk shows - 17 each show add 600 to 1000 audience. (Folk done by professionals from Chennai hired by Govt.)
2. Orientation Programs for Mahila Mandals - 2 programs
3. Orientation Programs for Zilla Parishad - 1 program
4. Training to 80 MO's 66 Health workers
5. Training of Self-help groups - 12 programs
6. Quiz Program in- 4 schools
7. Rally on 31st January - 1 at Villupuram
8. Wall paintings - 250
9. IPC Workshop 80 MO's and 66 Health workers
10. Health mela–1about 3000 people attended

Training of PHC staff is a key component of the integration and must precede implementation. Supervisory capabilities should be built up – Dr. Rao S. (IJL, Jan – Mar, 2003)

CONCLUSIONS

- Integration made a breakthrough in the social stigma attached to the disease. Integration is not only cost effective but also highly beneficial to the patients.
- Integration has significant positive impact – especially accessibility and availability of MDT services.
- Community awareness programs play an important role in case detection
- Good referral systems help in case holding and treatment completion and make integration successful.
- PHC staff training in leprosy should be a continuous process.

ACKNOWLEDGEMENT

I am thankful to my Director for allowing me to present this paper. We are thankful to the DLO staff - Mr.Samuel and Mr.Parivallal for the district statistics Our thanks are due to Mr.Sakaravarthi, Mr.Kershon and Mrs.Josephine for their clerical assistance in compiling this paper.

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New case detection - Observations from Agra, Firozabad and Kanpur districts of Uttar Pradesh

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Agra, Uttar Pradesh

Background

WHO has proposed a Global Strategy to further reduce leprosy burden in the endemic countries and an operational guidelines to sustain the leprosy control activities in all endemic areas during 2006 - 2010. It calls for the country Government to ensure high quality diagnosis, improved case management, recording and reporting. It is well documented that the field surveys can define the levels of prevalence as estimated from the observations on a sample population to the study population.

WHO also **has recommended** special campaigns for active case detection in 'hard to reach' areas and where 'health infrastructure' is inadequate (Global Strategy - Operational Guidelines: 2006-2010). It also advocates the use 'New Case Detection Rate (NCDR)' as a monitoring tool, instead of Prevelance Rate (PR), which is not epidemiologically relevant.

New case detection - What is happening now?

Before integration, the new case detection was mainly done only by community screening and population surveys. Currently, the policy of NLEP is to promote self reporting through IEC programmes. The changing epidemiological trend over the past few years – increase in the MB % - clearly indicates that the IEC campaigns did not made any impact in new case detection. The outcome of surveys in Uttar Pradesh has shown a wide disparity in the new case detection as compared to the figures reported under NLEP. On the contrary, the trend of new case detection in India is showing a drastic decline since 2004.

This presentation gives a brief outcome of the field surveys carried out in Agra, Firozabad (ongoing) and Kanpur Nagar districts of Uttar Pradesh and comparison of data on new case detection in these districts with possible reasons. Some observations of the data from 70 Districts in Uttar Pradesh are outlined. The changing epidemiological trend of various indicators and other related observations were also elaborated with suggestions on the specific issues identified.

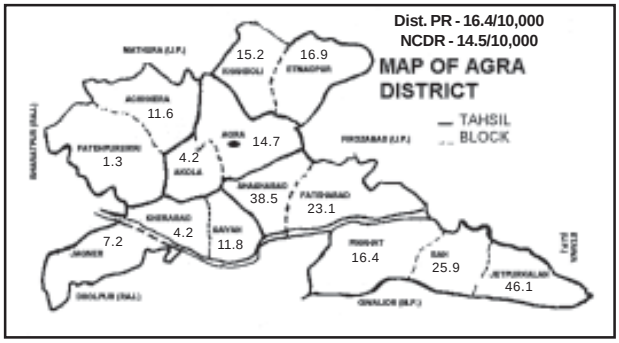


Fig.1: PR & NCDR - Field survey in 2001 - 2003

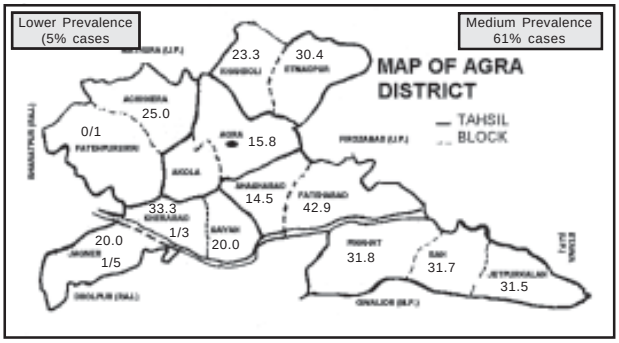


Fig.3: MB % in field survey in 2001 - 2003

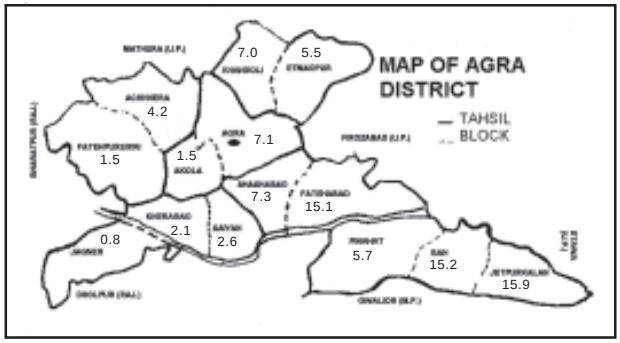


Fig.2: PR & NCDR - Field survey in 2004 - 2006

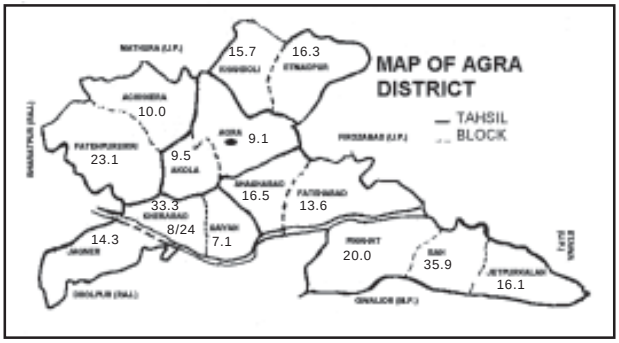
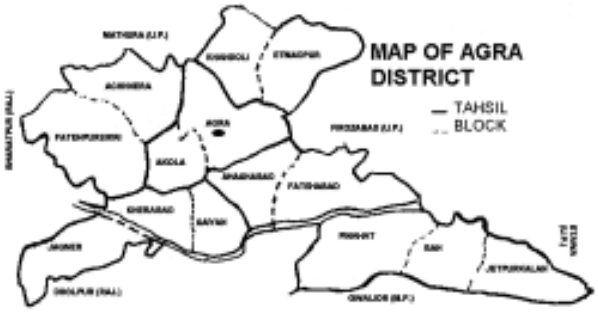


Fig.4: MB % in rapid survey in 2004 - 2006

Agra district

In a study on field survey of 3.61 lakh population in 10 blocks of Agra district, UP conducted during 2001 – 2003, the PR ranged from 11 to 46 per 10,000 population (Ref: Kumar A et al, Int. J Lepr (2005)). Based on the survey, the PR of Agra district was 16.4/10,000 and the NCDR was 14.5 / 10,000. The survey also revealed that in 6 blocks, the MB % was more than 25 and in another 6 blocks the MB % was ranging between 15 to 25.



Another study conducted on rapid field survey of 17.86 lakh population in all 14 blocks of Agra district during 2004-06 supported by NLEP and Indian Council for Medical Research (ICMR) have shown a PR of 6.1 / 10,000 and NCDR of 5.9 / 10,000 population. Out of 1056 new cases detected during rapid survey in Agra district, the MB % was more than 25 in 2 blocks; 10 to 25 in 10 blocks and less than 10 in 2 blocks. The comparison of reported NCDR and MB % by NLEP and field surveys in Agra district revealed wide variation as shown in Table 1.

Year	Reported data		Field survey	
	NCDR	MBR	NCDR	MBR
2004-05	0.82	33	5.9	17.3
2005-06	0.43	45		
2006-07	0.67	35	Not done	

Firozabad district

In an ongoing study, a population of 3,99,852 in 3 blocks of Firozbad district was examined during October 2006 to September 2007 and detected 305 new cases. The PR and NCDR was 7.6 and 7.4 per 10,000 population respectively. In rural areas, out of 1,86,672 population examined, 98 new cases were detected and the PR and NCDR was 5.17 and 5.0 per 10,000 population respectively.

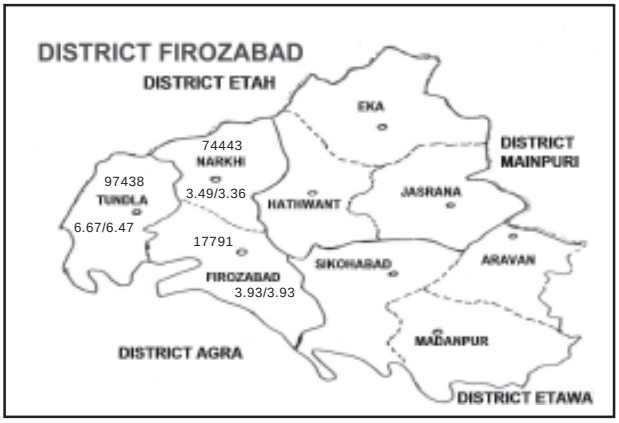


Fig.5 : PR & NCDR in Oct' 06–Sep' 07(Rural)

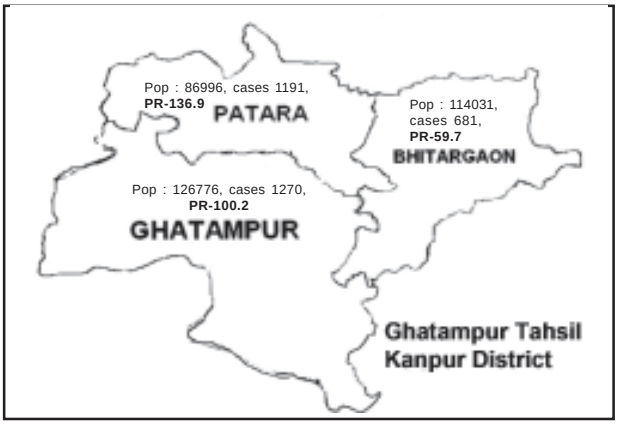


Fig.7 : PR & NCDR in field survey

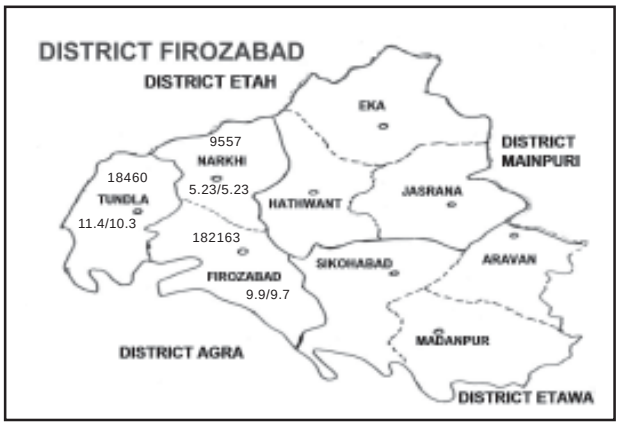


Fig.6 : PR & NCDR in Oct' 06–Sep' 07(Urban)

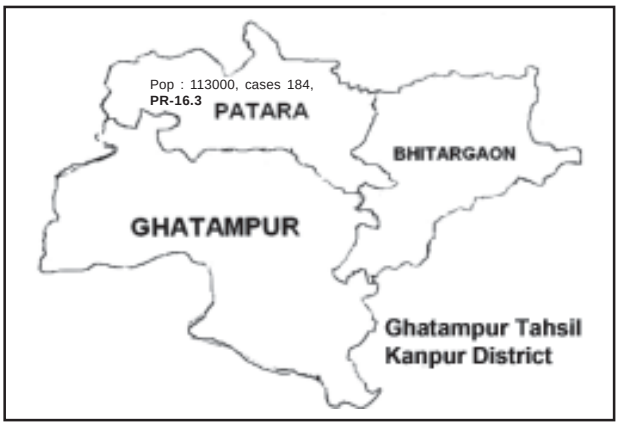


Fig.8 : PR & NCDR in re-survey

Similarly in urban areas, out of 2,10,180 population examined, 207 new cases were detected and the PR and NCDR was 9.9 and 9.6 per 10,000 population respectively. However, the MB% in rural areas was 17.3 and in urban areas was 14.5.

The comparison of reported NCDR and MB % by NLEP and field surveys in Firozbad district revealed 21 times more as shown in Table 2.

Year	Reported data		Field survey	
	NCDR	MB%	NCDR	MB%
2004-05	0.49	37	Not done	
2005-06	0.23	51	Not done	
2006-07	0.35	44	7.4 (21 times)	15.4

Kanpur District

A study conducted by Katoch K et al (2006) (Ref: MRHRU of JALMA) in 3 tahsils of Kanpur district, 3142 new cases were detected through a survey among 3,27,803 population and the PR was 96.2.

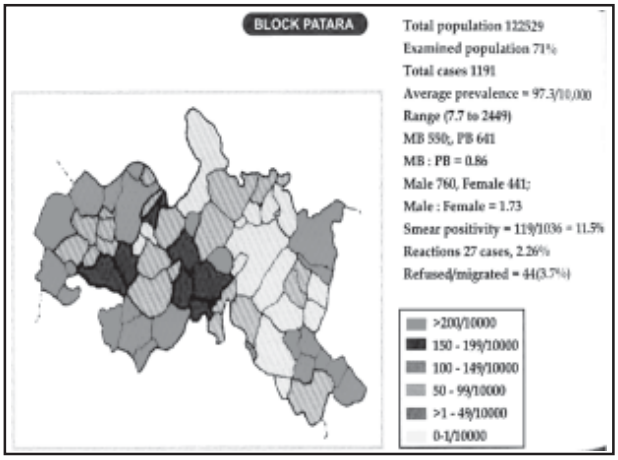


Fig. 9: Patara

Sr. No	Tahsil	Population	New cases	PR / 10,000
1.	Pataraa	86996	1191	136.9
2.	Bhitargoan	114031	681	59.7
3.	Ghatampur	126776	1270	100.2
	Total	327803	3142	96.2

A resurvey was conducted in Ghatampur Tahsil of Kanpur District during November 2005 – July 2006 covering a population of 1,13,000 and detected 184 new cases with a NCDR of 16.3 per 10,000 population.

The comparison of reported NCDR and MB % through field surveys in Kanpur district revealed wide variation in the NCDR and marginal decrease in MB% as shown in Table 3.

Year	Reported data		Field survey	
	NCDR	MB%	NCDR	MB%
2004-05	3.03	56	96.2	44.6
2005-06	1.87	57	16.3	37.5
2006-07	1.82	52	No Data	

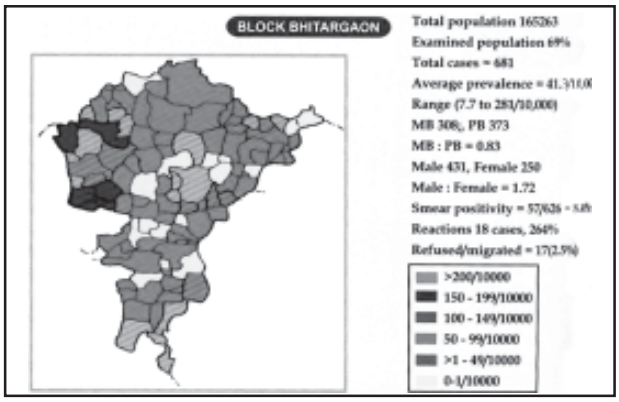


Fig.10: Bhitargoan

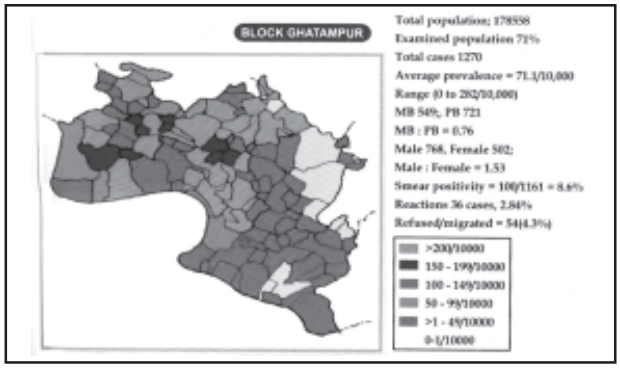


Fig.11: Ghatampur

Estimating leprosy incidence trough contact survey in Agra district

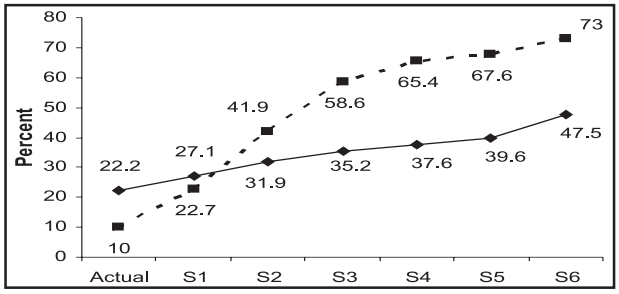
An estimate of leprosy incidence rate in the population among contacts will help to quantify the point-source for leprosy endemic. A study on overall leprosy Incidence among the contacts and non-contacts in Agra district (N = 42,113) demonstrated a IR of 6.2 / 10,000 Persons Years (PY) (Ref: Kumar A et al, Leprosy Review (2007)).

The incidence rate among the PB and MB contacts was 41 and 131.3 / 10,000 Persons Years (PY). However the incidence rate among the non-contacts was only 41 and 131.3 / 10,000 Persons Years (PY).

State	Skilled attendance at birth (%)	% PHC having all infrastructure (≥60% of critical inputs)
India	**47.6**	**31.8**
Chattisgarh	29.1	2.8
Orissa	43.5	3.2
Bihar	29.5	8.9
Jharkhand	27.8	9.8
M.P.	35.5	9.9
WB	54.1	12.0
UP	28.7	17.2

Change in MB ratio and resultant (expected) missed cases of leprosy

Assuming the MB ratio as revealed by surveys in different locations, the following chart shows the proportion of missed cases of leprosy as studied by Kumar A & Girdhar BK (Ref: J. Communicable Diseases, 2006)



Indicator	Sample Survey 2001-03	Rapid survey 2004-06	Change
Population (Lakhs)	3.61	17.86	+ve
PR/10,000 (cases)	16.4 (592)	6.1 (1090)	+ve
NCDR	14.5 (523)	5.9 (1059)	
% New Cases	88.3	97.2	+ve
% MB Leprosy	22.3	17.1	+ve
% Child leprosy	8.4	13.8	? Increased due to School surveys
% Female cases	56.1	51.8	+ve
Disability rate	4.8	2.36	+ve
New-PB Leprosy	1.8	0.45	
New-MB Leprosy	19.5	12.5	
Mean DOD-New cases (months)	32.3	22.9	+ve

Level of NCDR	2004-05		2005-06		2006-07	
	MBR	CR	MBR	CR	MBR	CR
<1	48.4 (8.2)	3.7 (1.3)	52.3 (7.4)	3.7 (1.6)	45.0 (6.8)	4.0 (2.2)
1-2	51.0 (6.0)	3.9 (1.5)	46.7 (7.4)	5.4 (1.7)	43.8 (8.0)	5.5 (1.6)
2-3	48.7 (10.1)	6.8 (2.3)	40.0 (9.3)	6.9 (1.7)	36.8 (7.4)	6.2 (1.9)
3-4	43.7 (9.8)	8.3 (1.7)	0	0	0	0
4-5	34.1 (6.6)	8.7 (2.4)	0	0	0	0
>5	36.5 (6.1)	10.3(3.1)	0	0	0	0
Total	45.2 (10)	6.6 (2.9)	45.4 (9.4)	5.6 (2.1)	41.5 (8.3)	5.4 (2.0)
Range	24 - 64	2 - 14	29 - 70	0 - 10	24 - 60	0 - 11
Female cases			30 (12 - 42%)			

Combination	2004-05	2005-06	2006-07	Remarks
PR & NCDR	0.890	0.927	0.929	In right direction, But
NCDR & CR	0.697	0.627	0.431	
NCDR ↓ & MBR ↑	-0.520	-0.549	-0.474	?? Questionable
MBR ↑ & CR ↓	-0.565	-0.593	-0.390	

Observations

From the analysis of the above studies, the following observations were made:

1. NCDR / PR of leprosy reported by NLEP in these 3 districts of Uttar Pradesh are very low as observed by surveys.
2. Active surveys conducted in series indicate that both NCDR and MB% are declining, but the reported data indicate very low levels of NCDR and high levels and increasing trend of MB%. In OPD of JALMA, Agra the MB % is 67 among new cases.
3. The incidence and NCDR should closely correlate as seen in the studies conducted in Agra district.
4. It is observed that the female % and child % in data reported under NLEP are also lower as compared to field survey data.

Issues Identified

1. Even if Integration has taken place, available staff MUST survey their areas with whatever frequency possible. This would promote early detection and treatment and thus help POD activities.
2. Special Surveys must be encouraged in districts on sample basis to know the actual leprosy situation. RNTCP is doing it already. (Survey by a research Institutions + TT at RNTCP DOT centre). NFHS I, II & III is another example.
3. How reliable are the leprosy figures? Do we need to look afresh and know about the current magnitude of leprosy problem in a given area?
4. No data on 'how many patients reporting at health facilities', how many complete full course of treatment and what are causes of discontinuation – a study is required.
5. IEC need to be continued but it should be more effective. This alone is not sufficient for promoting self reporting.

Suggestions:

- Active (sample / population) surveys are the best method to detect new leprosy patients.
- Field surveys revealed that the majority of new leprosy cases are not self reporting and this, in the long run, will sustain the level of transmission and may also increase the morbidity due to disability.
- The decline in reported PR and NCDR at the state level does not appear to be real and this may be due to operational changes, thus needs realistic investigations?
- The reported data also indicate 'non-specific' epidemiological relationships between indicators. This is expected in passive reporting.
- The poor infrastructure and inadequate support to the GHC will not benefit in 'anyway' the leprosy control strategy.
- Effectiveness of IEC is to be assessed in terms of its reach to masses and promote self reporting in different endemic regions and its extent.
- The current epidemiological trend continues; it would have adverse effect on the leprosy control programme and thus contribute defeating the objectives.
- The whole strategy for new case detection under NLEP needs to be debated and reviewed seriously, before we loose the fight against leprosy forever!

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Recent trend in new case detection in RLTRI field areas - Raipur, Chhattisgarh

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Introduction

Detection and treatment of new leprosy cases has played a crucial role in bringing down the disease burden drastically. New case detection assumes greater importance in stages nearing and following leprosy elimination, as the cases are few but distributed far between. That's why, in integrated set up, responsibility of detecting / diagnosis and treating these leprosy cases is given to the vast network of General Health System (GHS).

Integration is the well-accepted cost effective and sustainable strategy which relies on principles of social justice and equity, bringing diagnosis and treatment closer to patient's home. However it requires cautious watch in crucial years following integration, so that new leprosy cases are not missed and years of hard works are not wasted.

Settings

Chhattisgarh is the newly created state of Central India, came into being since November 2001. About 44% of State's land is dense forest. Population of the state is 225,80,282 (Est. 2006), of which about one fifth is urban and one third is tribal. Economy is mainly agriculture based and 38.2 % of population is living below poverty line. The State's literacy rate is 65.2 and sex ratio is 990 (Female).

The state has been identified as high focus state under National Rural Health Mission (NRHM) with poor public health standards having Birth Rate of 27.4/ 1000, Death Rate of 7.7/ 1000 and Infant Mortality Rate of 60 / 1000 live births.

There are 18 districts (including 2 newly created), 146 blocks and 20,378 villages in the state and public health delivery system has 15 District Hospitals, 12 Civil Hospitals, 118 Community Health Centers, 518 Primary Health Centers (PHCs) and 4692 Sub-Centers (SRS 2006).

The State is most endemic for leprosy since its inception with a Prevalence Rate of 1.45 / 10,000 (March 2007). The state with about 2% of country's population holds 4% of country's new leprosy caseload.

Raipur is the capital of Chhattisgarh and located centrally with good connecting links. The Raipur district has a population of 30,09,022, of which

70 % is rural. It is fast developing as an Industrial district with increasing proportions of migrant and floating populations. The district has 15 blocks, 1 District Hospital, 1 Civil Hospital, 10 dispensaries, 11 Community Health Centers, 47 Primary Health Centers and 540 Sub-Centers. About 20-30 % of new leprosy cases of the Chhattisgarh state are from Raipur district.

Regional Leprosy Training and Research Institute (RLTRI) is one of the three regional Institutes of Central Government under Ministry of Health & Family Welfare, situated at Raipur. It was established in 1979 to cater the needs of leprosy cases from central India. The Institute has a base hospital providing specialized referral services, as tertiary level institution. It runs regular Out Patient Department (OPD) for leprosy cases

RLTRI also had a field area covering 3 blocks of Raipur districts with a population of 250,000 distributed in 146 villages. Regular surveillance and Leprosy control activities were part of activities being undertaken in the area, for which the field area was divided into 7 sectors. Each sector was overseen by a Para Medical Workers (PMW) and activities of these 7 PMWs were supervised by 2 Non Medical Supervisors (NMS).

Anti-leprosy Treatment was given by organizing examination and drug delivery on fixed points (Drug Delivery Points DDP) on monthly basis in each sector. The system continued from 1980 till October 2002. In November 2002, the field area was handed over to the state government in pursuance of ongoing integration process. However, OPD of RLTRI continued to run as before.

Data Sources and Compilation and Analysis

Data for the presentation has been obtained from the different sources viz. RLTRI field records, OPD records and Monthly Performance Reports (MPR) of RLTRI and the State. Time period for analysis also differs and depend upon the availability of data. This variation in data sources has led to differences in the variables included in different tables.

Trend of new case detection in RLTRI Field area

The field activities in the area were initiated in 1980, but in initial few years the treatment was based on Daspsone mono-therapy. In 1985, the whole area was resurveyed to identify and classify leprosy cases into MB and PB categories. Thereafter, MDT was introduced in the area during 1986, which continued till October 2002. Hence the data included for the purpose, is from April 1986 to October 2002. For the ease of presentation the data has been clubbed into four time blocks of 4 years periods each. The data after 2002 was only for the last 7 months (April to October) as the field area was handed over to the state health authorities.

Table 1: Trend of New Leprosy cases detected in RLTRI field area (1986-2002)

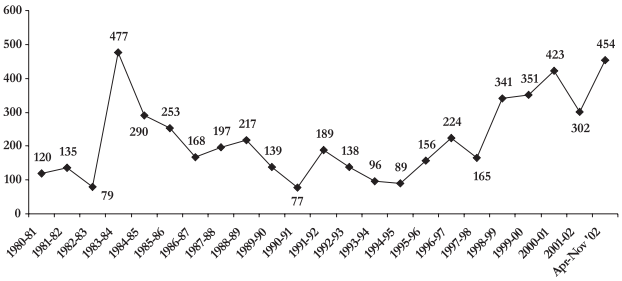
Period	New cases (Avg.)	ANCDR (Avg.)	MB (%)
1986-1990	180.3	12.1	21.0
1991-1994	125.0	7.6	20.2
1995-1998	158.5	7.9	20.2
1999-2002	354.3	15.6	28.4
Apr-Oct 02	297	-	-

As it is clear from the Table 1, a rise in number of new cases has been noticed in the fourth time block, i.e. from 1999-2002, when the ANCDR is more than double than the previous two blocks. It may be mentioned that this was the time block following 1st MLEC and during which 2nd and 3rd MLECs were carried out. All these special campaigns have helped in increasing the community awareness and participation, leading to rise in new case detection

In the last 7 months period i.e. April to October 2002, the rise has been much more pronounced, which may be attributed to improved supervision of field activities by RLTRI. However, to keep in line with the integration, this was the time when the field area was handed over to the state government.

It is observed that the annual new case detection in the field area fluctuated from 100 to 200 between 1986 to 1998 (Fig. 1), but from 1999 onwards a continued rising trend is clearly visible, which continued even during 2002-03 although the field area was given to state health authorities.

Fig. 1



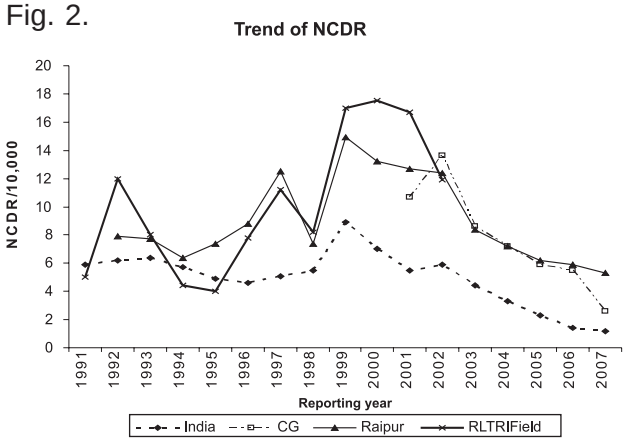
Trend of New cases coming to RLTRI OPD (2000 - 2007)

RLTRI, after handing over the field area to the state health authorities, continued to provide leprosy treatment through its OPD. Table 2 shows trend of new cases coming to RLTRI OPD during 2000 to 2007.

Table 2: Trend of new cases inRLTRI OPD

Year	New case	MB %	Child %	Female %
2000-01	362	34.0	19.1	37.8
2001-02	448	40.4	17.6	36.2
2002-03	383	40.2	16.2	32.6
2003-04	638	41.2	8.2	33.2
2004-05	673	42.6	8.3	35.1
2005-06	686	41.8	4.2	34.5
2006-07	729	39.9	8.4	31.3
Apr-Sep'07	383	66.1	10.0	41.6

This clearly highlights the changes from pre-integration stage (i.e. before 2002) to post integration stage (i.e. after 2002). The number of new cases has increased to more than 1.6 times from 2002-03 (integration) to 2003-04 (post integration). Rise in number of cases is much more significant in 2006-07. The similar trend is reflected in graphically as shown in Fig. 2.



It can be seen that average attendance of 300 to 450 cases per year has rose to > 600 to 700 cases during 2003 to 2007. This shows that the load of new leprosy cases, in post integrated era, is diverted to RLTRI OPD, instead of being shifted to state health system.

Trend of New cases in Raipur district (1991-2007)

Table 3: Trend of new cases in Raipur district

Year	New cases Detected	ANCDR (Avg.)	MB %	Child %	Gr.II %
1991-1995	3,040	7.6	30.6	19.3	3.9
1996-2001	47,356	12.1	31.5	13.1	4.0
2002-2006	25,262	8.9	45.3	10.0	3.4
2006-2007	1,758	5.3	49.3	6.7	2.4

As shown in Table 3, for better understanding and ease of presentation the available data of 16 years has been clubbed into 4 time periods (rows). Rows 1-3 depict 5 yearly time periods (from 1991-2006), whereas 2007 data is shown in separate row.

As it is clear from the findings the trend of New cases from Raipur district, shows somewhat opposite picture. After 2nd 5 year time block (1996 –2001) the case detection has shown a continued decline.

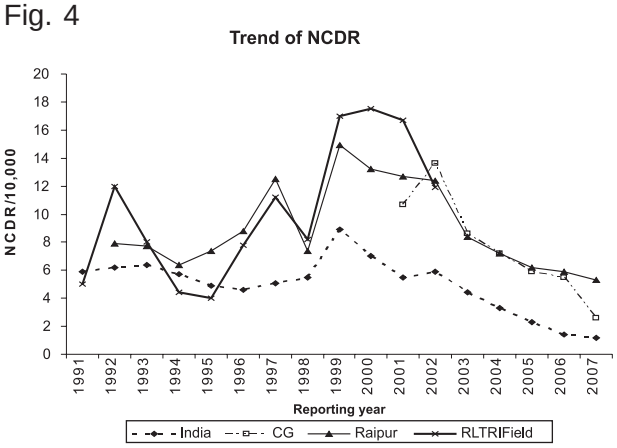
Trend of New cases in Chhattisgarh state (2000-2007)

The trend of new cases in the state as shown in Table 4 and Fig. 4 is somewhat similar to Raipur district. It can be seen that, since 2002 onwards a sharp decline in number of new cases has been reported.

Table 4: Trend of New cases in Chhattisgarh state (2000-2007)

Year	New cases Detected	ANCDR (Avg.)	MB %	Child %	Gr.II %
2000-01	22,343	10.7	36.0	15.4	3.0
2001-02	28,230	13.6	37.2	12.6	2.7
2002-03	18,468	8.6	40.8	9.0	2.6
2003-04	15,385	7.2	44.7	9.1	2.1
2004-05	13,110	5.9	47.4	9.0	3.5
2005-06	9,040	5.5	50.7	6.7	2.3
2006-07	6,056	2.6	50.0	6.2	2.8

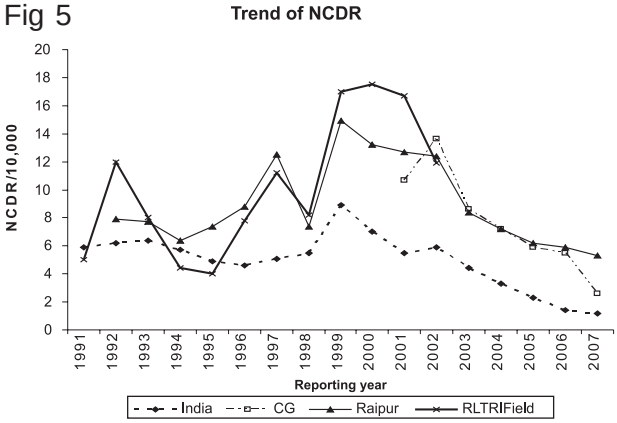
Fig. 4



Comparison of ANCDR in RLTRI Field area, Raipur district, Chhattisgarh state and India

In Fig.5 an attempt has been made to compare NCDR of RLTRI field area, Raipur district, Chhattisgarh state and India. Although there is difference in the time periods but it is evident that till the year 2000, the values of RLTRI and Raipur districts was following the similar trend. But after integration, since 2003 the district NCDR is going in line with state and country's NCDR. In 2007, a slight rise in District NCDR is visible.

Fig 5



Conclusion and Recommendations:

It can be concluded that, in RLTRI field area new case detection was showing a rising trend since the year 1999 till the time of handing it over to the State Government in November 2002. The similar pattern has been reflected in the number of new leprosy cases coming to

RLTRI OPD after 2003. Contrary to the above observations, the State health authorities have reported a decline in number of new cases from the Raipur district and Chhattisgarh state after 2002. This indicates that many new cases are not reporting to the general health system of the state instead they are reporting to RLTRI.

The possible reasons for the variation in new cases reporting to RLTRI are as follows: low community awareness about the leprosy / treatment availability in the PHC system, lack of required skill / logistics at PHC system, low sensitivity of the PHC staff towards the leprosy cases, over diagnosis by the RLTRI staff / officials or social stigma preventing the cases to report to PHCs, which are nearer to their homes.

Thus the findings underline the need for continued quality monitoring, technical supervision and concurrent evaluation of the leprosy services by an independent organization / agency in crucial years after integration. There is also need of enhancing community awareness and involvement as well as sensitization and continued capacity building of the GHS staff.

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An overview of new case detection in medical colleges and by dermatologists

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In leprosy the New Case Detection Rate (NCDR) reflects trends in incidence rates provided that, no significant changes occur in case detection efforts, self reporting behavior, or diagnostic procedures and criteria. The NCDR does not depend upon the duration of treatment. Whereas the prevalence rate (PR) is influence by factors such as duration of therapy, time of the determination of prevalence, etc. The present PR applied to leprosy is 'point prevalence' and not 'period prevalence'. Overall, it is considered that the NCDR is a better indicator than registered prevalence for monitoring trends in transmission over extended time periods.

The PR and NCDR, are the important statistics of leprosy in India, on which the leprosy programme is dependent for assessing the present status of leprosy, the efficacy of the elimination campaign and also for planning the future. However, the numbers of leprosy patients for the statistical purposes are obtained from the registers of the leprosy service centers working under the National leprosy elimination programme of India (NLEP) which coordinates with Non governmental organizations(NGOs). What is not taken in to consideration is the large pool of leprosy patients who are treated by the Dermatologists all over India.

Role of Dermatologists in Leprosy:

Before discussing about the leprosy patients being treated by Dermatologists, lets examine the facts about Dermatologists and Leprosy.

Leprosy is one of the important parts of Dermatology curriculum all over India. In fact, Dermatology is the only postgraduate course, which has leprosy as a major part of its curriculum. Many Dermatologists teach leprosy to both under and post graduate students of medicine, apart from teaching paramedical workers. Dermatologists are well equipped to treat leprosy patients. All Dermatologists are qualified leprologists and most Dermatologists love their leprosy work.

The number of qualified Dermatologists in India is about 6000, with about 5000 being the members of Indian association of Dermatologists, Venereologists and Leprologists (IADVL). Dermatologists treat leprosy patients as per WHO MDT guidelines. Although few tend to treat patients little longer,

but the duration is never less than what is suggested by WHO.

Although some of them are the members of faculties in Government and Corporate hospital departments of Dermatology and leprosy, many of them have private practice after office hours. Hence there are many leprosy patients under the care of these throughout India. As it is a common knowledge that Dermatologists treat leprosy patients, many family and general practitioners refer patients to them. And also, many patients visit them voluntarily. Most of these patients might not be registered in NLEP records. A sample survey study was conducted to know the extent of leprosy case holding by Dermatologists in India.

AIM of the study:

To contact a number of Dermatologists all over India to know the numbers of leprosy patients they treat and hold in their clinics **during last one year and in (the last) one month**. Also to know the number of new leprosy patients, partially treated patients and old patients of leprosy under their care and to know the status of their registration with NLEP.

Methods:

Pre-decided format was used, which was sent to IADVL Academic / Derma e-mail groups and responses were requested. Option was given to make an approximate estimate to the best of their knowledge or to provide the number as per their official records, where available. The number of leprosy patients seen both at hospitals and their private clinics were to be mentioned separately. Also columns were provided to mention new patients, partially treated patients, and patients with residual disabilities; to be recorded separately. The format had also provision for mentioning whether the leprosy patients seen at these clinics were registered with the local NLEP worker/ office or not. The results of the responses obtained from Dermatologists from

The number of leprosy patients seen by 26 Dermatologists as per their statements **per year** is given in the table below**:**

Dermatologists per year	At Private clinics	At Hospitals	Total	Avg.
New patients treated	1169	466	1635	**62.8**
Partially treated patients	464	95	559	**21.5**
Old Patients with disabilities	226	117	343	**13.1**

The number of Leprosy Patients Seen by Dermatologists as per their statements **per month** is given in table below:

Dermatologists per month	At Private clinics	At Hospitals	Total	Avg.
New patients treated	115	46	161	**6.1**
Partially treated patients	52	25	77	**2.9**
Old Patients with disabilities	28	14	42	**1.6**

all over India in a 4-week period between September to October 2007 are being presented here.

Results:

E-mails were sent to about 120 dermatologists all over India. Responses were obtained for the request from 26 Dermatologists all over India in a 4-week period. The profile of those who responded was, Faculty members of the departments of Dermatology, senior-practicing Dermatologists of repute and IADVL association members. Most were very enthusiastic in their responses

Profile of Responders:

The 26 responders were from 7 different states (A.P, TN, Karnataka, WB, Gujarat, Rajasthan, New Delhi.). Of these 10 Dermatologists have, both hospital practice and private practice. Only one of the responders had a full time hospital attachment. Rest of the 15 was full time private practitioners.

When these results were further analyzed, the highest number of new leprosy patients seen by single Dermatologist at their private clinics per year was 430. The Lowest number of new leprosy patients seen by single Dermatologist per year: Zero (only one out of 26 dermatologists). The average number of new leprosy patients seen by Dermatologists under study per year was 46.

The highest number of partially treated leprosy patients under single Dermatologist per year was 150. The average number of partially treated leprosy patients seen by a Dermatologist per year was 21. The highest number of leprosy patients with disability seen by a single Dermatologist per year was 50. The average number of leprosy patients with disability seen by a Dermatologist per year was 13.

There are Dermatologists in India who see about 100 to 150 patients with 'skin problems' per day in their private clinics. Which means that they get to see about 30,000 to 40,000 skin patients over a year. The leprosy patients of 0.5 to 1% of OPD are possible in an endemic area. Moreover, the patients who come to Dermatologists are self selected group of voluntary patients and does not necessarily reflect the true nature of sample of that area.

Number of Leprosy patients seen at Hospitals by the 26 dermatologists surveyed: Total number of new patients seen at hospitals per year was 466. The highest number was 146 per year at a Government hospital by a Dermatologist. The lowest number of patients seen was 3.

The hospital figures provided by 4 out of 11 Dermatologists were based on their hospital records. Rest of them provided approximate estimate of the numbers, as hospital records were not available.

It is also important to note that Dermatologists keep no records of patient's diseases seen at private clinics. Although doctors need to maintain records of names of patients seen, it is only done for income tax purposes. As per income tax requirements they need not record the nature of the disease of the patients in the register, hence most do not record it.

Information of registration of patients with local NLEP:

All the Dermatologists were asked in the format whether the leprosy patients being treated at their clinic /hospital were registered by NLEP staff of your area. The responses indicated *that none of the leprosy patients seen in the private clinics* of 25 Dermatologists were registered by NLEP or no information of such registration is available with them. *About 50% of Dermatologists* mentioned that NLEP staff is registering *their hospital patients*.

Discussion:

With increase in the awareness about skin care and skin diseases, more and more patients are voluntarily reporting to skin specialists. With increasing number of Dermatologist's services being available, patients of leprosy, like other skin diseases approach them directly. The drug therapy for leprosy is relatively inexpensive (costs about Rs 200 per month); most patients of leprosy can afford private drug purchase. It is being observed that more and more patients of leprosy prefer the services of private Dermatology clinics to Government and NGO clinics.

Number of new patients at Govt. hospitals v/s number of patients attending private clinics:

As an example for the number of leprosy patients attending Government hospitals, let us look at the hospital figures of Gandhi hospital, Hyderabad and of Rangaraya medical college hospital, Kakinada, Andhra Pradesh.

The total number of new patients registered at Dermatology and leprosy OPD in the year 2006-2007 at Gandhi medical college hospital, Secunderabad, A.P., was: 92. At Rangaraya Medical college hospital, Kakinada, A.P., was: 146.

Compare these numbers with the number of new patients seen at private clinics by popular individual Dermatologists in different parts of India as per this survey. Number of New leprosy patients seen *per year by* individual dermatologist. From Ballary, Karnataka: 100, from old city area of Hyderabad, A.P., 430 From Visakhapatnam, A.P: 60. We can note that the number of new patients seen by individual Dermatologist in a year is some times greater then those visiting Government hospital clinics in an year.

NCDR and Dermatologists, what is the significance?

From the above study, it was observed that the average number of new patients seen by a Dermatologist per year is 62 and most of these are not registered by NLEP. If we were to extrapolate the total number of leprosy patients seen by dermatologists in India after discounting this number to 1/3rd i.e to 20, (as in most cases the numbers furnished by Dermatologists were approximate estimates and a part them could have been registered by NLEP) the total number of new cases of leprosy seen by all the Dermatologists in India in a year, would be more than 100,000 per year, as there are more than 5000 dermatologists in India. Even by bringing the figure down to the average to 10 leprosy patients per year per

dermatologist, still there would be about 50,000 new leprosy patients who were not entered into the registers of NLEP, and hence not accounted for, as they were attending private Dermatology clinics.

Significance of these observations:

Although the number of Dermatologists included in this study does not meet the sample size requirements, the results of the study cannot be ignored completely. There is an urgent need to take into consideration the number of leprosy patients seen by Dermatologist in India as the numbers are significant.

The increased number of leprosy patients attending voluntarily to dermatology clinics augurs well for the future of leprosy, indeed. However, some of the problems of patients reporting directly to the Dermatologists and not being registered with NLEP hence being not considered for statistical purposes; are as follows:

1. Lack of records of leprosy patients seen by practitioners and the type of leprosy.

2. Inability for the Govt. agencies to assess the exact number of leprosy patient load in a community, which leads to improper planning and budgeting for leprosy.

3. This could lead to an inadequate availability of resources (men and material) where and when required.

Leprosy is, perhaps a disease with a biology that does not lend itself readily to elimination. Leprosy as an important disease causing morbidity and disability is very likely to remain in India for many more years and probably, decades. Hence, it is important to arrive at the correct number of leprosy patients and caseload in each geographical area, so that appropriate measures could be taken for the control of leprosy in this post elimination era.

There are important reasons to include Dermatologists in the leprosy programme.

With integration of leprosy into General Health Services there will be virtual disappearance of Leprologists. And also with integration of leprosy, Departments of Dermatology would be primarily responsible for leprosy patient care (as has happened in Sri Lanka) all over India.

However, although Dermatologists treat leprosy patients, the responsibility of comprehensive management of leprosy programme cannot be assigned to them as yet due to various reasons, but they should be considered and included as an important part of the programme. Hence, the role of NLEP is not over but a modified procedural and supervisory system should be evolved for the changing trends and requirements. In this endeavor, there is an urgent need to start leprosy case registry at Private Dermatology clinics. This will help not only in getting the true leprosy numbers, but also in identifying the regional pockets of leprosy, in knowing the changes in the profile of leprosy when they occur in a geographical area, to execute national leprosy programme in proper perspective and finally, to plan for the future of Leprosy.

"Sample format used to collect responses"

Type of leprosy patients	No of patients seen/on treatment in **last 1 year**		No seen/ on treatment in **last 1 month/average month**	
	At Pvt. clinic	At Hospital	At Pvt. clinic	At Hospital
New patients of leprosy				
Partially treated patients who required further MDT				
Treated leprosy patients with residual deformities and late reactions on Rx				
	At Pvt. clinic		At Hospital	
Are these patients on Rx at your clinic/hospital are registered by NLEP staff of your area?	Yes / No / No information		Yes / No / No information	
Name of Dermatologist	City/town		Type of practice: Pvt. clinic / Hospital / both	

(Strike off which ever is not applicable)

† The information provided is an approximate estimate to the best of my knowledge and not from the records.

† The information provided is from the records kept by the patients.

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Session 2

Strategies for new case detection during integration phase

Experiences across Maharashtra

Chairman: Dr. B. K. Girdhar
Co-Chiarman: Mr. M. V. Jose

A section of audience at the Workshop

LEAP interventions in Mumbai, Navi Mumbai, Thane and Raigad districts

Mr. Joy Mancheril
Director - General Administration
ALERT-INDIA, Mumbai

Introduction:

ALERT – INDIA has been developing, experimenting and implementing a programme called Leprosy Elimination Action Programme (LEAP) in collaboration with different stakeholders since 2005. The over all objective for this programme has been to *'strengthen the integration and sustain leprosy control activities through a community partnership approach by all stakeholders'.*

The special objectives are as follows:

1. To reach all new leprosy patients through intensive community level IEC campaigns in the areas selected based on specific criteria – this is done through Selective Special Drives (SSDs);

2. To augment the capacity building efforts of all GHC personnel, medical professionals and other health care functionaries - this is done through Continuing Medical Education (CME) programmes;

3. To offer timely and comprehensive care to all leprosy patients in collaboration with public & private health care providers - this is done through establishing Leprosy Referral Centres (LRCs); and

4. To evaluate the outcome and the impact of all interventions implementing and supported by LEAP.

Leprosy Referral Centres

LEAP promotes Leprosy Referral Centres (LRC) as an integral part of leprosy control work to offer comprehensive care to all leprosy patients during integration in collaboration with all stakeholders including Government, Municipal Corporation and other specialized medical centres. The services provided through LRCs are a) diagnostic help (Slit skin smear); b) reverse referral of cases to appropriate Health Posts for MDT & follow-up; c) management of complications; d) providing physiotherapy / aids and appliances (Splints and MCR footwear) and e) health education and counseling.

ALERT – INDIA's LRCs in Mumbai & Navi Mumbai

ALERT – INDIA has established 6 LRCs in the project areas in Mumbai and Navi Mumbai of which 2 LRCs in collaboration with the general health facilities of Municipal Corporation and 1 LRC in Private Medical College. As on September 2007, 1136 new leprosy cases were referred for treatment; 1600 new leprosy cases were treated with MDT at various health posts

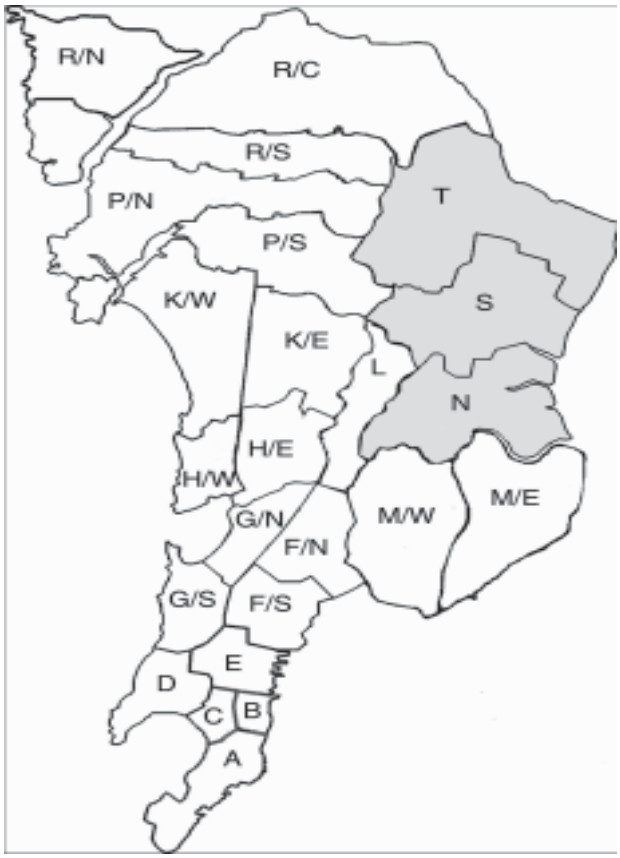


Chart 1: Profile of new leprosy cases registered in Project areas

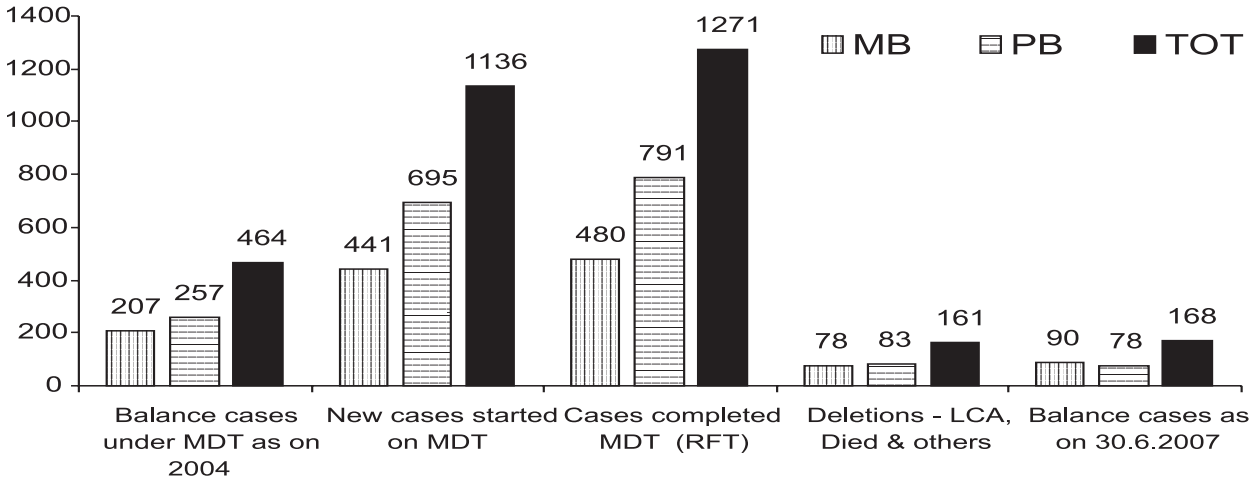


Chart 2 : Reaction cases

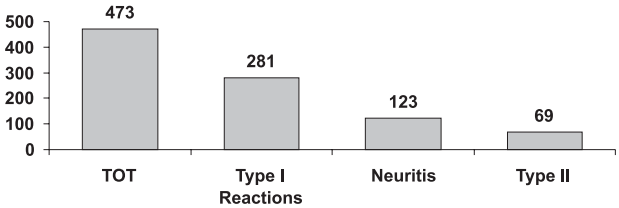
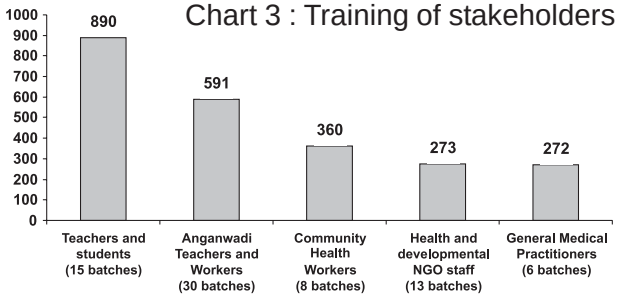


Chart 3 : Training of stakeholders



in the project areas and 1271 patients completed treatment. At the end of June 2007 there were 168 patients under treatment in the project areas. Out of balance cases, there were 528 patients with Grade II deformities and 282 patients with Grade I deformities.

Supportive interventions: Contact examination (Jan 05 to June 07)

61 new leprosy cases were detected among the 9,652 contacts examined during January 2005 to June 2007. As expected, the NCDR was 63.1 per 10,000 population. Hence we continue the contact examination as one of the supportive interventions of LRCs.

No. of contacts examined	: 9,652
New leprosy cases detected	: 61 (MB-23, PB-38)
NCDR (among contacts)	: 63.1 / 10,000

Supportive interventions: IEC activities (Jan 05 to June 07)

Following integration, the strategy for new case detection is mainly on voluntary reporting through sustained IEC activities. Hence, we conduct IEC campaigns in the LRC covered areas to promote leprosy awareness among the local community as a supportive intervention of LRC.

Slide shows	: 37
Group talks	: 2,735
Medical Practitioners contacted	: 571
Banners displayed	: 197
Posters and stickers displayed	: 3,989
Leaflets distributed	: 55,439
Diagnostic Cards distributed	: 1470

Supportive interventions: Anti-leprosy week (Jan 05 to June 07)

It is a routine practise to organize mass awareness campaigns during the anti-leprosy week every year involving the local community organizations and grassroot level workers including school students. Orientation training on leprosy for the general medical practitioners was also conducted. Various programmes were organized through community health volunteers, anganwadi workers and school students during the anti-leprosy week as a part of supportive intervention of LRC.

Street plays by CHVs and Students	: 90
Awareness march	: 29
Exhibitions in Public places	: 157
Slogans written on black boards	: 72
Leprosy screening camps	: 4
Essay / drawing competitions	: 123

LRC – Supportive interventions: SSDs (Jan 05 to June 07)

Special campaigns for identifying suspects for leprosy were recommended to achieve early new case detection. ALERT-INDIA implemented Selective Special Drives (SSDs) in epidemiologically significant areas selected based on specific criteria were conducted in slum pockets and reached 2,13,747 population through IEC activities. 158 new cases including 17 MB cases were detected among the suspects identified by the trained community volunteers.

Slum pockets covered	: 60
CVs identified and trained	: 427
Population examined	: 2,13,747
Cases detected	: 158 (MB-17)
NCDR / 10,000	: 7.4/10000

Local CBOs contacted	: 3,038
Medical Practitioners contacted	: 799
Slide shows and film shows	: 390
Posters Exhibitions	: 7,282
Posters and stickers displayed	: 7,282
Leaflets distributed	: 38,000

Establishing new LRC with partner organizations

a) The process:

The LEAP Support Team (LST) of ALERT-INDIA identified suitable locations at the existing GHC centres to establish new LRCs. The NLEP personnel available in the area were selected and formed LRC teams. All the district health officials - DHO / CS / ADHS (L) - were sensitized on LEAP. The NLEP staff collected baseline data on the high risk cases & existing (new & old) disabled cases (Grade I & II). Skill development training on LRC activities were organized at the district level for all NLEP staff (Leprosy Technicians).

b) The logistics:

All Physiotherapy equipments (Wax-bath & Electrical Muscle stimulator), aids and appliances (Splints & MCR footwear), dressing materials (sterilizer with instruments and soaking tubs), stationery (Registers, Referral slips and report formats) and other infrastructure (cupboards & furniture) were also provided through LEAP. Additionally, expenses towards local travel for follow-up activities to the LRC teams were also provided.

c) The monitoring:

The LST also provides technical guidance to the LRC teams by regular monitoring visits. Regular CME are also organized for PHC Medical Officers & PMPs. Training PHC workers were also conducted on LRC service and follow-up. Networking with the GHC centres like Civil Hospital and NGO centres were organized for offering specialized services to leprosy affected persons in the region.

LEAP Supported LRCs in Maharashtra:

Locations of 38 LRCs in Maharashtra		
1.	Rural / Sub-district Hospital	20
2.	Municipal Hospital & Dispensary	6
3.	Leprosy Centre / Hospital	5
4.	General Hospital	5
5.	Medical college & Hospital	1
6.	Private medical college	1

Most LRCs are established at the Rural and Sub-District Hospital in order to have easy access to services by the patients living in remote areas of rural and tribal districts.

Supportive interventions by LEAP for Partners

Capacity building of all the health personnel in the GHC system was crucial to sustain the referrals of patients to LRCs. 3-day task-oriented skill development training was organized for the NLEP personnel at the district level.

Conclusion

Orientating the NLEP staff through hands – on training on the services to be provided through LRCs helped to sustain the leprosy services. Enhancing the knowledge and skill of the GHC staff help to support for referral and follow – up of services to leprosy patients. Strengthening the facilities of municipal, Govt. & private hospitals / rural hospitals helps to provide quality care through LRCs.

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Sample survey in Mumbai under the auspices of Municipal Corporation of Greater Mumbai

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Rationale

During the pre-Integration phase, Sample Survey was an integral component of NLEP. It was used for validating the leprosy status and for epidemiological monitoring of the leprosy control programme. However, it has no specific purpose since the active case finding through surveys were stopped following integration of leprosy services with the general health care services.

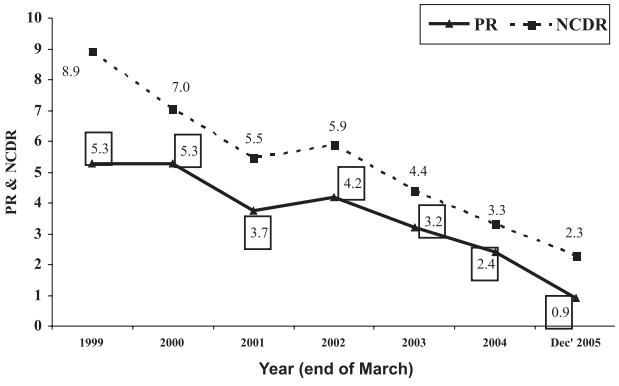
The present reporting systems based on Simple Information System (SIS) have proved inadequate for epidemiological monitoring. WHO also asserts that 'a lack of appropriate tools makes it impossible to measure the true incidence of leprosy, which would be the best indicator for monitoring the impact of elimination efforts on leprosy transmission in the community'. Hence, a systematically planned sample survey can be a tool to assess the leprosy situation and validate the achievements made so far.

Purpose

The 'intermediate' goal of leprosy elimination (< 1 case per 10,000 population) is achieved in Mumbai (March 2005). The rate of annual decline in PR was 53% in 2005 (Ref: Graph 1) as against the worldwide decline of 2 to 12 %. This sudden decline predicts an artificial situation that was mainly due to operational factors. Leprosy Elimination Committee – Mumbai suggested validating the leprosy elimination through a common strategy. Hence, ALERT-INDIA proposed a study to validate the leprosy status through a 'Sample Survey' under Leprosy Elimination Action Programme (LEAP) involving all stakeholders.

Chart 1: Trend of PR & NCDR in Mumbai

Sampling method:



Mumbai is an important urban centre in India with 13 million people and about 60% are living in slums. In order to eliminate the bias in selecting the areas for sample survey and to choose a true representative sample that will represent a good cross section of the entire population of Mumbai, a randomization sampling method was used taking the Health Post (HP) as a base unit. All the 169 HPs in Mumbai were classified into two groups based on the

size of the population (HPs having population less or more than 78,160) in each HPs. These two groups of HPs were again stratified into two sub-groups according to the reported prevalence rate (PR) as on May 2006 (HPs having PR <0.59 and >0.6). Further randomization of 22 HPs was selected from the four groups of HPs through "luck of the draw" method (Refer Chart - 2). The numbers of HPs were decided based on the population covered by each NLEP units in Mumbai so as to give an equal chance to all NLEP units who participated in the survey.

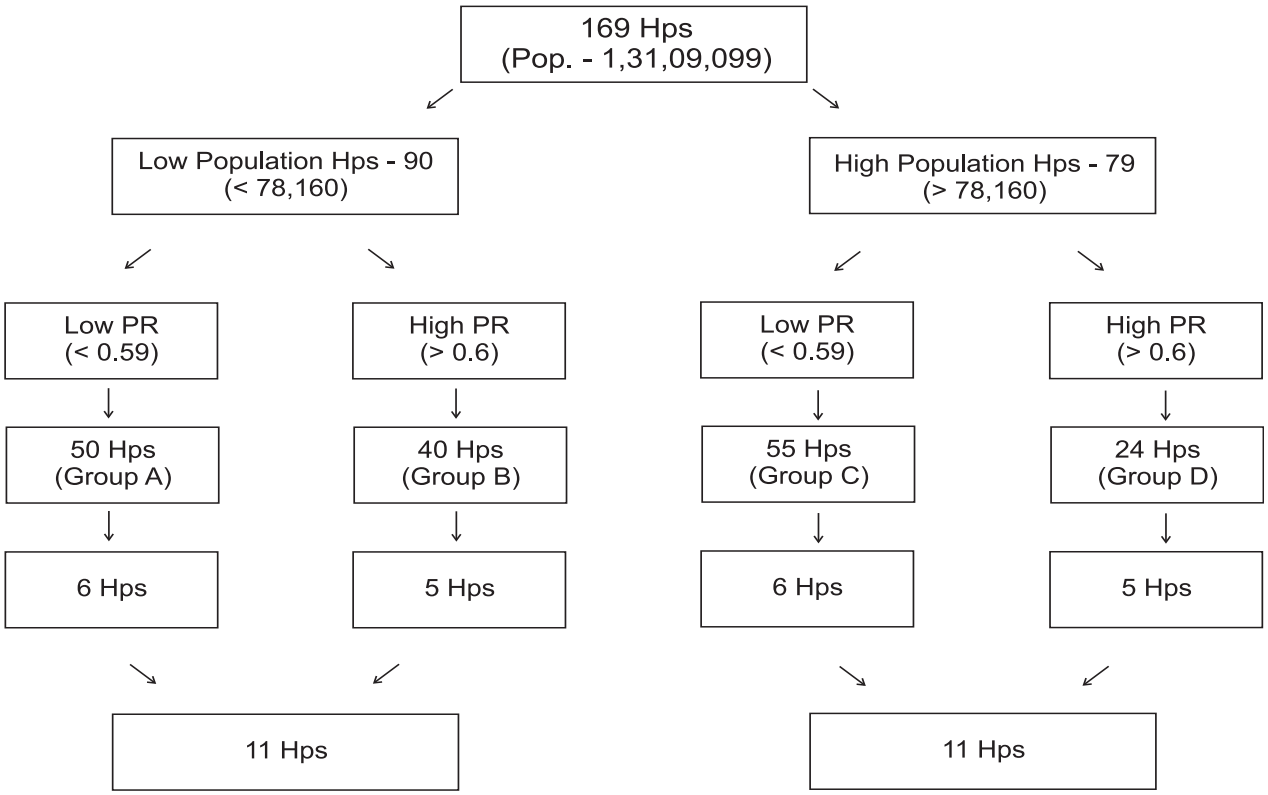
This study was planned in 2 phases; the **Phase 1 will cover** 8 Health Posts during January 2007 – July 2007 and the **Phase 2 will cover** 14 Health Posts during October 2007 – March 2008. The following four NLEP institutions in Mumbai participated in the Sample survey.

1. Maharashtra Lokahita Seva Mandal;
2. Acworth Municipal Hospital for Leprosy;
3. The Society for the Eradication of Leprosy
4. ALERT – INDIA

Table 1: **Demographic information of Mumbai**

Population (Estd.)	: 1,34,49,147
NGLOs (6)	: 85,59,767 (65%)
Govt.Units (SULU 1-4)	: 33,52,091(25%)
Municipal Corporation	: 15,37,289 (11%)
Integration into GHC	: August 2004
Municipal Wards	: 24
Health Posts	: 169

Chart 2: Selection of HPs for Sample Survey



Total population in 22 HP areas: 17,90,523 (13.65%)

Table 2: **Health Posts selected for Sample Survey in Mumbai (Phase 1)**

Health Post	Ward	Population
1. Colaba	A	111,483
2. Soutter Street	E	148,300
3. Kidwai Nagar	F - S	49,113
4. Vakola	H - E	80,848
5. Dindoshi	P - N	94,276
6. Rajawadi	N	63,812
7. SP Nagar	S	83,493
8. PJKM Home	T	66,158
Total population: 6,97,483 (5.2%)		

Methods

Before commencing the Sample Survey, all baseline information - population distribution, name and population of slum areas, existing (new and old) leprosy cases – with respect to each Health post were collected. Approximately, 25,000 slum population per Health Post were randomly enumerated by trained CHWs / CVs. Trained NLEP workers examined the population by door-to-door visit. A special team carried out monitoring of the survey.

Validation of new cases

All the suspects identified by the survey team were diagnosed by the Medical Officers as per the WHO criteria and were validated by a Leprologists. The details of the new cases detected were analyzed by the Epidemiological Monitoring Unit of ALERT-INDIA. The preliminary results were projected to all the stakeholders through a Dissemination Workshop. All the logistic support for this project was provided through LEAP.

Results

201,302 (44.4 %) out of an estimated 453,360 slum population in 8 Health Posts were enumerated by the trained CVs. 154,200 (76.6%) out of 201,302 population enumerated from 8 Health Posts were examined by the NLEP staff. 70% of the population were examined during the 1st survey and the rest were examined during 2 absentee survey. The examination of male adult population was only 62.7% as compared to 84.3% of female adult population among those enumerated.

79 new cases of leprosy have been detected from the 8 Health Posts giving a NCDR of 5.18 per 10,000 population. The MB % was only 14% as compared to 45% reported by NLEP. The NCDR at individual Health Posts ranges from 0.41 / 10000 to 14.9 / 10000. Two Health Posts that had maximum coverage of examined population (Kidwai Nagar and Souter Street) showed less NCDR (0.41 and 0.95 respectively).

Chart 3: Proportion of examined population among those enumerated

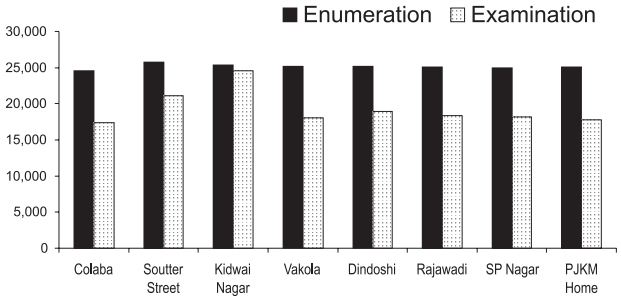


Chart 4: Sex distribution of examined population among those enumerated

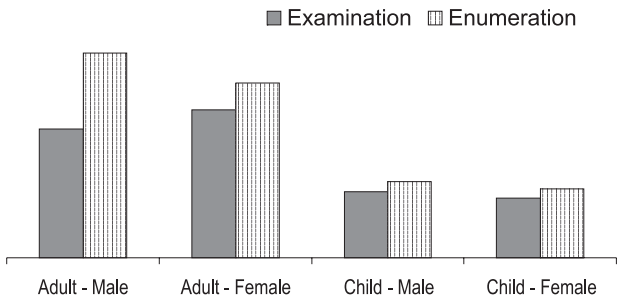


Chart 5: Examination: Coverage

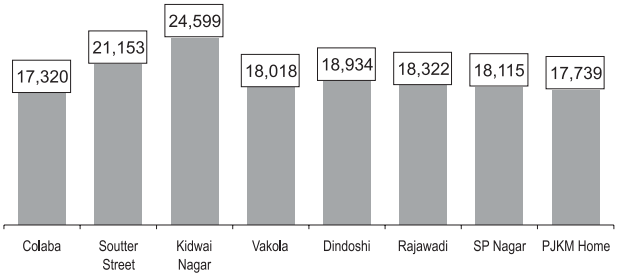


Chart 6: Examination: Coverage during survey

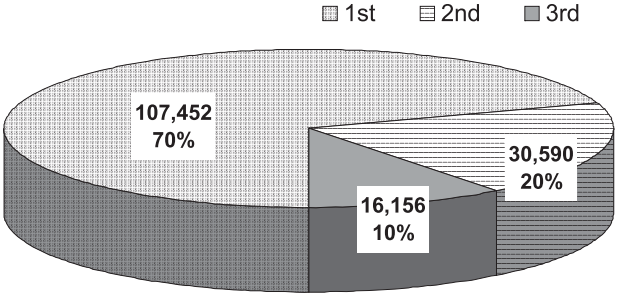


Chart 7: New leprosy cases – Type wise

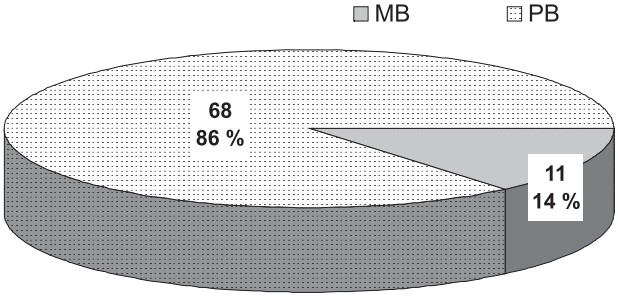


Chart 8: New leprosy cases – Key indicators

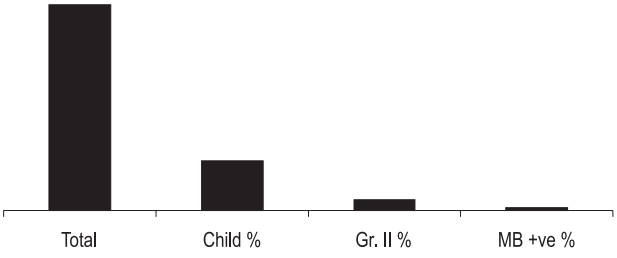
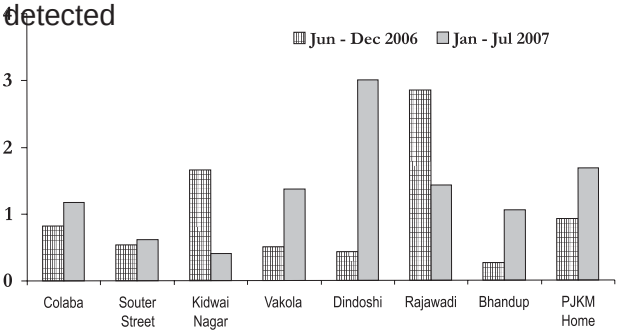


Chart 9: Comparison of new leprosy cases detected



Conclusion

It was observed that 86 % of the new cases developed skin patches and yet not reported voluntarily for examination. This indicates that the IEC activities had not made any significant impact in promoting voluntary reporting thereby preventing late detection of new leprosy cases. The NCDR observed during the study period (Jan – Jul 2007) is slightly higher as compared to the NCDR reported during Jun – Dec 2006 under NLEP. A wide range of NCDR (0.4 – 14) was seen among the Health Posts, which shows existence of leprosy endemic pockets within slum areas.

Recommendations

Sample survey, if planned and done scientifically, can be useful to monitor the epidemiological trend during integration phase. We also need to develop a strategy for reaching adult population through targeted IEC interventions. General IEC campaigns need to be strengthened with active community participation focusing on early new case detection. We strongly recommend to undertake sample survey periodically as a tool for epidemiological surveillance and to take mid-course correction.

Acknowledgement

We gratefully acknowledge Prof. P. Ramachandran, Rtd. Head, Department of Health Studies, Tata Institute of Social Sciences (TISS), Mumbai for his guidance in sampling. We are thank the officials of MCGM, Mumbai; staff members of 4 partner agencies; members of Monitoring and Validation Team; GHC staff of respective HPs; CHVs / CVs from the respective HPs and the LEAP Support Team of ALERT-INDIA.

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Selective Special Drives in Mumbai by a Non-Governmental Leprosy Organization

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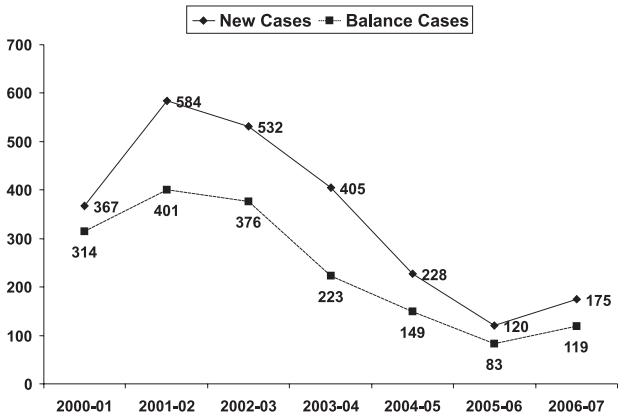
Introduction

"Selective Special Drive" was undertaken in Mumbai since 2005 by the NGLO partners of Leprosy Elimination Action Program (LEAP), viz. The Society for Eradication of Leprosy (SEL) in A ward and by Maharashtra Lokhita Seva Mandal (MLSM) in H/E, P/S and P/N wards of Municipal Corporation in Mumbai. This presentation, however, is based on the SSDs conducted by the MLSM.

MLSM is carrying out NLEP activities in its project area, i.e. H/E, P/S and P/N Municipal Wards for the last 30 years and covering 18,04,381 population under 21 Health Posts.

The year-wise new cases and balance cases (Fig. 1) in MLSM project area show progressive decline since 2001-2002. About 40 - 45% of the annual new cases have been detected as a result of active survey, which is ceased since April 2004 as per the Govt. guidelines. Subsequently, the leprosy programme was integrated with the GHC system since September 2004. Presently, the leprosy program is mainly based on promoting voluntary reporting of new cases through IEC activities. Since 2005, MLSM initiated SSD in slums and schools in its project area, which could be one of the factors that attributed to rise in new and active balance cases in 2006-07.

Fig. 1: New cases and Balance cases



SSD: Primary Objectives

1. To promote voluntary reporting of New Cases through focused door to door Health education
2. To have community participation by involving Community Volunteers or Community Health Volunteers attached to Health Posts in the Leprosy Awareness Program
3. To elevate the level of Integration of Leprosy Program with General Health Services through active participation of Health Posts.

SSD: Methodology – The presentation is on the Slum SSDs conducted by the MLSM.

1. Selection of Slum Pockets – The slum pockets from where the minimum cases have

been reported in last 2 years are mainly selected for SSD.

Following table shows the slum pockets where the SSD was conducted in 2005-06 and in 2006-07.

2005-06	2006-07
1. Golibar	1. B. Singh Nagar 2
2. Indira Nagar	2. Motilal Nagar
3. Shankar Wadi	3. Hanuman Nagar
4. Malwani	4. Shastri Nagar
5. Manori	5. Kanchpada
6. Jaihind Nagar	6. Prabhat Colony
7. Krishna Nagar	7. Maharashtra Nagar
8. Tanaji Nagar	8. Unit 31,32,13 & 22
9. B. Singh Nagar 1	9. Rajanpada

Picture of one of the slum pockets where SSD was conducted.

2. Selection of CVs and Training

- Local Community Volunteers or CHVs of the Health Post were selected – Generally 10-12 CVs/CHVs from the local community were identified and called for training of whom 10 actually participated in the SSD activity. Number, however varied as per the availability of CVs. In year 2005-06 and 2006-07, 100 and 92 CVs/CHVs participated in the activity respectively.
- Training was conducted for 2 days by the NLEP staff, i.e. PMWs and NMS of MLSM.
- Venue – The training was conducted at the Health Posts / Community Halls involving General health staff and community.
- The training was conducted with the help of Slide shows, Albums, Diagnostic cards, Games, Role plays etc. It was specially seen that the CVs actively participated in question answer/ discussion etc.
- The contents of the training included clinical features of leprosy with emphasis on LL leprosy, treatment, complications, referral centres, communication skills, use of albums and other HE materials.

Training of CVs and CHVs done by the PMWs/ NMs in Health Posts

3. Coverage of Population

- CVs/ CHVs worked in pair forming 5 teams.
- The house holds in the slums were divided among the CVs/ CHVs for Door to door coverage. Each team has been given a daily target of covering 100-120 houses.
- Available members in each house hold were contacted and given information about leprosy with the help of albums and diagnostic cards. Pamphlets are distributed in each house.

- Suspected cases during the Health Education activity were referred to the HP or LRC in the vicinity for diagnosis and further treatment.

- Voluntary reporting of cases to HP and LRC also followed after the activity was over.

Slum dwellers watching leprosy exhibition. Door to door HE by the CVs/ CHVs

SSD: Results

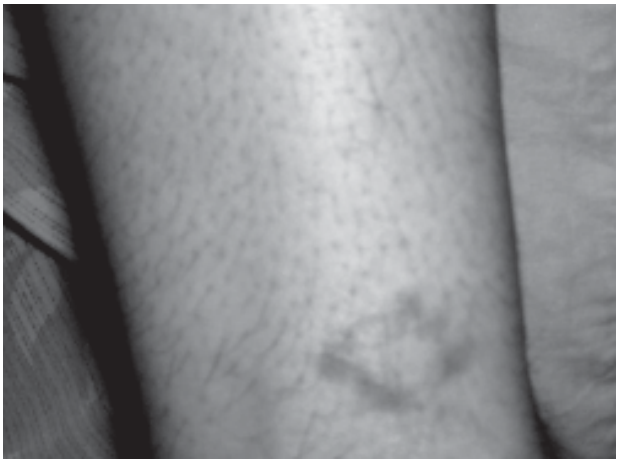
Table 2 gives the results of SSD conducted by MLSM in 2005-06 and in 2006-07.

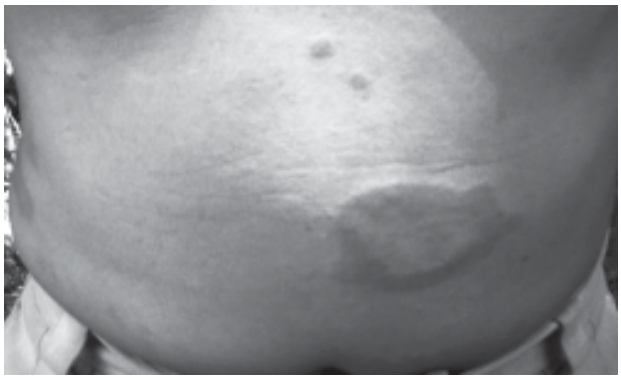
	2005-06	**2006-07**
Slum pockets	9	9
CVs / CHVs	100	92
Est. Population	39,256	99,093
Households	7,611	21,687
Population	26,113(66%)	67,398(68%)
Suspects	26	27
Leprosy cases	9	18

Each year 9 slum pockets with estimated population of 39,256 and 99,093 were taken up for SSD activity. The coverage of population was 66% and 68%. Out of suspected cases, 27 (MB=11 and PB=16) cases have been confirmed.

The confirmed cases included cases with single lesion, multiple lesions and the case with type I reaction. The most striking feature of the activity was the detection 4 infectious (skin smear positive) cases (LL cases). Two of them who lived in the community for more than two decades were brought to LRC by their relatives, one reported to HP with the leaflet who was then referred to LRC for smear test. The fourth was detected by the CVs while they were covering the community with the health education activity.

Photographs of some of the patients detected in slum SSD conducted by MLSM





SSD: Conclusions and Recommendations

- SSD involving focused door to door HE is more effective than general IEC activities in routine program
- The SSD conducted by MLSM during 2005-06 & 2006-07 could result in reporting of smear +ve MB cases
- In SSD activity, there is an opportunity to involve community volunteers in leprosy program – CVs, being local members, are better received by community and they will act as good spokespersons in future.
- Since Health Posts are involved actively, the SSD activity is helpful in elevating the level of integration of leprosy program with General Health Services.
- SSD is compatible with the Govt. Policy of promoting voluntary reporting through IEC.
- SSD activity, as strategy for New Case Detection can be included as one of the components of IPC activity advocated in Govt. policy.

Acknowledgement

I acknowledge the efforts of MLSM staff, the Community Volunteers and Community Health Volunteers and the financial support from LEAP in making this activity successful.

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Selective Special Drives in Vidarbha region and Chhattisgarh in collaboration with NGOs

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Introduction:

Drastic fall in prevalence rate (PR) of leprosy in post-MDT period has reflected in change in strategy of NLEP, which resulted in integration of vertical programme in to General Health Care System (GHCS). Integration process was completed in phased manner since 2001. This followed by major shift in policy of new case detection. Active case detection (various types of surveys), the most effective method to reach to new and hidden leprosy cases considerably at an early stage in a comparatively shorter period is now banned both for its high cost and importantly its direct influence on PR.

In absence of active case search, the programme entirely depends on the level of leprosy awareness prevailing in the community and relies totally on self-reporting. It is rather unrealistic to anticipate voluntary reporting of early leprosy cases at GHCS when treatment seeking behaviour in general and leprosy in particular is very poor in Indian society. Late reporting of leprosy cases is not only a patient related individual / family problem but also a threat to community health. It equally encumbers the prospects of leprosy elimination.

We, in this era of cyber-technology, often witness the treatment seeking behaviour particularly in leprosy is affected by misconceptions, myths, social stigma and unscientific means of treatment. Whereas in a recent Marathi daily we have come across news of leprosy patient who volunteered for a sting of strongly poisonous cobra in belief that cobra's venom will cure him of leprosy. Similarly in another news clipping we learnt, not a leprosy patient but his wife ended her life to get free from act of social stigma due to her husbands disease. We still have extreme situations like these few due to misconceptions and lack of awareness about leprosy in the society. No matter, how extreme & few these situations are, we cannot afford this to prevail in our society where we mainly rely on voluntary reporting.

What these two recent news give lesions to current leprosy programme, which probably is in its complacent state? No doubt it calls for a change in IEC approach. in interest of integration policy. It is not that IEC, which NLEP emphatically implemented through out five decades, was ineffective. We must definitely thank the programme managers of IEC wing of NLEP to be instrumental in bringing about a

remarkable change in awareness of leprosy among communities. Still we have long way to go to reach leprosy eradication through sustaining the level of leprosy elimination. In this context IEC approach is very crucial. It should be beyond general campaigns.

The new approach must be different in a way that it will leave a permanent impact. One such way is through community partnership. This will make community self reliant. A community self reliant in reporting leprosy will benefit Leprosy Control Programme during Integration Phase.

In this context ALERT-INDIA has developed Leprosy Elimination Action Programme (LEAP). It promotes community partnership involving all stakeholders to support leprosy integration process. It has three major action oriented components viz - Selective Special Drive (SSD), Continuing Medical Education (CME), Leprosy Referral Center (LRC).

Selective Special Drive (SSD)

SSD is a strategic community partnership programme using potential within the community to educate and enlighten the community and develop community spokespersons. This is an initiative to sustain leprosy control through increased awareness.

In this paper, we present our experience of SSD projects through partnership programme in Vidarbha and Chhattisgarh region.

Methods & Materials

Formation of LEAP Support Team (LST) – Having formulated the strategy and goals of LEAP, ALERT-INDIA formed a team of senior and experienced leprosy personnel under guidance of senior leprologist to materialize LEAP through partnership programme.

The team was entrusted with following tasks.

1. Selecting area for intervention
2. Exploring partnerships and Project Designing
3. Ensuring technical & logistic Support
4. Monitoring of Programme

1. Selection of Area for Intervention

The criteria for selection of area for SSD intervention was Rural / Tribal community, under developed districts, Area with high leprosy endemicity. Based on these parameters, Vidarbha region of Maharashtra state and Dantewada (earlier part of Bastar district) district of Chhattisgarh state were selected for SSD intervention.

2. Exploring Partnerships and Project Designing

LST identified potential local NGOs mainly from Developmental, Health and Educational sectors. These NGOs had no experience with leprosy control programme. Initially four NGOs were individually contacted and sensitized for LEAP in general and SSD project in particular. To expand partnership network, LST organized regional level LEAP sensitization workshop.30 NGOs from 13 districts of Vidarbha and Chhattisgarh participated in the workshop. LST, during 2 days workshop, facilitated candidate partners to prepare their project proposals and budget.

LST received 29 project proposals for SSD intervention. The central LST scrutinized the proposals and decision was reached to start partnership programme initially in Nagpur region of Vidarbha and Chhattisgarh. 12 NGOs from seven districts of Gondia, Gadchiroli, Bhandara, Chandrapur, Nagpur, Wardha (All from Maharashtra state) and Dantewada (Chhattisgarh state).

3. Ensuring technical and logistic support

LST provided technical and logistic support to all partners to enable them implement SSD projects efficiently and effectively. Technical support included organization of various training programmes for teams of partners.

Entire training was imparted in three phases;

a. 1 day LEAP sensitization for teams;
b. 2 day training on leprosy orientation and SSD methodology;
c. 2 day IEC capacity building of selected team members.

Through these training programmes, total 116 NGO personnel of 12 partners were trained in leprosy and SSD methodology. They were also trained as trainers to enable them conduct trainings for target groups like Community Volunteers (CVs), Nodal Teachers, and Peer Students etc.

A special training was imparted to selected staff of partners' team to augment their capacity to perform IEC activities. 47 NGO Staff of 12 NGO partners trained & equipped for carrying out community level IEC & training.

IEC capacity building training emphasized on hands on training to use audiovisual equipments and communication skills. Partners were also facilitated to form street play on leprosy. Partners formed 12 different skits on Leprosy

Street play and local teams. Partners were given technical inputs to prepare village level micro-action plan.

LST mediated liaison between partners and local governmental health functionaries to ensure technical support to validate leprosy suspects identified and referred during SSD campaigns. LST ensured all timely logistic support in form of IEC materials, equipments and advance fund distribution. Partners were given IEC material like posters, leaflets, stickers, flex banners, flip charts, big leprosy albums. LST developed a movie converted power point presentation to be used as slide show with help of DVD player and television. This replaced traditional use of 35" slide projector.

4. Monitoring Programme

The entire partnership programme, trainings as well as IEC interventions, is regularly monitored by field visits of local LST based at Nagpur. Team gives on spot feedback to team to enable them to rectify shortfalls / overcome weaknesses / improvise performance. Besides monitoring programmes local LST acted as facilitator during training programmes.

Methodology of SSD:

Three projects were formulated under SSD they are explained below.

A. IEC and House to House Intervention

Under this project, partner's team select, train and induct local CVs for House to House leprosy IPC (inter personal communication) intervention. CVs are motivated to act as leprosy spoke person in their local community. Partner's team organizes and conducts community level IEC programmes like Group Talks, Slide Shows, Exhibitions, Street Plays and Cycle Rallies. During these activities emphasize is given to motivate target population for voluntary reporting.

B. IEC and School Intervention

Under this project, partner's team select and train nodal teachers and peer students of local high schools and junior colleges. Trained nodal teachers and peer students are motivated to volunteer to take up leprosy awareness activity for their local community. Partner's team organizes and conducts community level IEC programmes. During these activities emphasize is given to motivate target population for voluntary reporting.

C. IEC and Community Intervention

Under this project, partner's team select and train local CVs. Trained CVs are motivated to act as leprosy spoke person in their local community. Similarly, partner's team organizes and conducts community level IEC programmes like Group Talks, Slide Shows, Exhibitions, Street Plays and Cycle Rallies. During these activities emphasize is given to motivate target population for voluntary reporting.

Of 12 LEAP partners, two partners from Gondia and Wardha districts are implementing project A, 5 partners from Bhandara, Nagpur, Wardha and Gadchiroli project B and 4partners from Gadchiroli & Chandrapur districts. One partner from Dantewada district (Chhattisgarh) has taken a combined activities enlisted in project B & Project C.

Coverage: Through above partnership projects an estimated population of 7,07,000 is expected to be reached from 707 villages of 18 blocks (Talukas) in 7 districts

Results / Interim Outcome: (November 2006- September 2007)

1. House to House Intervention: 2,43,000 population reached by H2H intervention by Community Volunteers.

2. IEC Intervention: Community Level IEC campaigns are carried out by trained staff of NGO . During IEC campaign 465 Group Talks, 158 Exhibitions , 112 Slide Shows, 175 Street Plays and 23 Cycle Rallies were organized. Two partner's team specially organized bullock rallies on the occasions of pola festival (bullock festival) which is very popular in this region and celebrated with great zest.

Thus 1, 22,000 population was reached by actual IEC activities conducted by 12 partners' teams.

3. School Intervention: 433 schools covered, 180 Teachers trained (Total-500), 2840 Secondary & Jr. College Students will be trained during project period.

4. Community Intervention: 1230 community volunteers are identified and trained in leprosy by teams of partners. Total 3930 CVs will be trained during project period.

Interim Outcome

- 802 Leprosy suspects identified during house to house and community level IEC programmes.
- 545 Leprosy suspects examined to date.
- 51 New Leprosy Cases detected. (MB-18, PB-33).

All new patients were referred to nearest PHCs for MDT.

Evaluation

LST conducted a field study to gauge the impact of SSD project on creating and sustaining leprosy awareness among local community. This study was conducted in project areas of 2 partners where SSD project of house to house intervention by CVs and community level IEC by partner's team was undertaken.

Total 1200 randomly selected villagers, 300 each from 2 SSD villages and 2 non SSD villages, were subjected for periodical tests (1 pre-SSD and 4 post SSD). Designated field investigators are taking the periodical interviews over a period of 9 months.

The interim analysis is showing definite impact of SSD project in augmenting leprosy awareness among local community which is exposed to SSD when compared with communities not exposed to SSD.

Difference in increase in positive responses of both communities is shown in following table:

Details	% increase in responses	
	SSD Area (n=600)	Non SSD Area (n=600)
Cause	61	29
Spreads	59	21
Signs	41	23
Curability	59	23
MDT	60	17

Conclusion & Recommendation

With reference to interim results, we can conclude that SSD through partnership approach is an effective strategy in integration period to augment community participation, to create leprosy spokespersons, to sustain leprosy awareness and to promote early case detection.

Therefore, we would like to recommend that in the integration phase SSD through partnership with non-leprosy NGOs could be adopted as a strategy to sustain leprosy awareness in rural community to supplement the leprosy control programme.

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Continuing Medical Education among doctors and health workers in Maharashtra

Dr. V. V. Dongre
Sr. Consultant
LEAP ALERT-INDIA, Mumbai

The medical students who are the budding medical practitioners happen to be the pivot of all our health programmes in the country. The paramedics as the word suggests, are the supportive elements in the health programmes. Hence, their involvement for the success of the programmes is beyond doubts. Therefore, their training of the concerned health subjects attains prime importance. The subject has to be taught in its depth along with theoretical and practical inputs. The paper explains the methodologies that were followed while undertaking CME programmes in a mega city, urban set-ups and rural set-ups.

The Leprosy Elimination Action Program, in brief LEAP has four components, namely, Selective Special Drives (SSDs), Leprosy Referral Centers (LRCs), Continuing Medical Education (CME) along with Epidemiological Monitoring Unit (EMU) with Central Registry.

The subject of Continuing Medical Education has attracted attention of all the authorities concerned with health subjects and medical education for a pretty long time. The subject of leprosy does not get its due importance in the curriculum of medical and paramedical courses.

The current medical education leaves much to be wanted where leprosy is concerned. This scenario will have to change in order that all GHS personnel obtain adequate knowledge on leprosy and its care. In a survey of 106 medical colleges in India, it was found that the average time spent on leprosy is 4 ½ hours during three years (McDougall & Wendal, 1980)

This fact attracted the attention of Swaminathan Committee, that was appointed by Govt. of India, to study the problem of leprosy control in India and its report was available in 1982.

The said Committee has appended to its report, the recommendations made on the subject of leprosy training in the curriculum of MBBS course.

These recommendations were made during a workshop on the said subject under the auspices of Gandhi Memorial Leprosy Foundation and Medical Council of India on February 24th, 1979 at the All India Institute of Public Health. Kolkata.

The recommendations were circulated to the Deans of all the Medical Colleges in India for action by the Medical Council of India.

Dr. B. Mukhopadhyay, who was the Vice President of MCI, was the Chairman of the said workshop.

The important part of Recommendations is as follows:

"Out of the period of rural internship, the medical student should have participating experience in leprosy control programme for a period of 15 days", in addition to the theoretical lecturers / demonstrations as recommended throughout the course of MBBS.

Thereafter, curriculum of MBBS – may have been modified on the lines of the recommendations but **- what is the reality?** It is reflected in the resolution that was passed unanimously by the delegates coming from all over India, on 10th October 2005, during the workshop under the auspices of ALERT-INDIA, Mumbai.

"There should be proper curriculum on leprosy for UG medical students of all pathies"

CME has become all the more important after integration, as the general health staff is supposed to undertake anti-leprosy work too in addition to their general health work. The vertical staff of leprosy programme is merged with that of General Health Care system. There are no special leprosy treatment centers under GO or NGO sectors. The newly recruited MOs of all pathies in Government and Non-Government Organisations need to have capacity building for early detection and treatment of leprosy patients that will increase their knowledge and skill for quality services to the patients. This involves transfer of technology of leprosy control work.

Definition of CME for leprosy: Those cadres of workers working for health subjects are given additional inputs in terms of practical and theoretical knowledge of different aspects of leprosy.

Therefore, the groups to be given CME are as follows:

Medical students – all pathies

GMPs / PMPs – all pathies

Medical Officers of Govt. & Municipal Corps.

Paramedics – Nurses; PT, OT students; PMWs; Pharmacists; AWWs; CHWs ; MPWs;

The contents of the course are as follows:

1. Diagnosis and grouping of patients for treatment
2. MDT regimen with Fixed Duration
3. Manage / Refer cases with complications like Lepra Reactions and Neuritis
4. Counseling and IEC
5. Reference for CBR
6. Maintain patients' cards, treatment register and submission of reports
7. Handling instruments like wax bath etc.
8. Maintain adequate stock of MDs

Areas of CME in Maharashtra

Mega city of Mumbai, Thane, Kalyan, Dombivli, Ulhasnagar, Navi Mumbai, Municipal Corporations by Master trainers (Leprologists); Panvel – Bloc of Raigad District, coordinated by Kushthrog Nivaran Samiti (PKNS), Panvel

Districts - Thane, Gondia, Gadchiroli, Raigad, Nashik, Nandurbar by LEAP Support Team (LST); Kolhapur, Sindhudurg, Sangli and Nanded - Coordinated by Hind Kusht Nivaran Sangh, Maharashtra Branch (HKNS – MB); Nagpur city - Coordinated by SANGAM – NGO; (Bastar District of Chattisgarh - LST)

Preamble of work in Mumbai city:

Renovation of Lecture Hall for proper light, ventilation & sound system for audio-visuals was undertaken. Permission from Authorities for deputation of MOs and staff members of other cadres was sought. Preparation of curriculum (modules) was undertaken by Master Trainers of Mumbai after long discussions.

Following modules were prepared for giving necessary knowledge of the subject to the trainees

1. Leprosy as a National Programme
2. Epidemiology & Bacteriology
3. Immunology, Pathology, Diagnosis and Treatment
4. Differential Diagnosis
5. Complications and their treatment for Lepra Reactions, Neuritis, Relapse etc
6. Prevention of Deformities and Disabilities
7. Social Aspects

Arrangements were made for the following supportive measures of the training

Health Education material including a Guide on leprosy (in English & Hindi) which is reader friendly was provided in all the areas, free of cost along with list of Referral Centers. CDs of all the modules, plastic transparencies, slides for projector and video cassettes were provided wherever necessary, free of cost. Logistics including necessary budget was shouldered by LEAP, ALERT-INDIA, Mumbai.

CME materials

Methodology of CME in Mumbai City

Master Trainers (Leprologists) prepared training modules for Mumbai based Groups.

For Medical Officers the training lasted for 2 days', including demonstration of patients along with a visit to MCR shoe unit. Certificates were conferred at the end of the course which was signed by the superior officers. For other cadres the training was of one day duration.

The present methodology of CME in Mumbai

There are 5 Allopathy, 1 Homoeopathy and 3 Ayurvedic Colleges in the city of Mumbai. These colleges were approached for the CME. Only Seth G.S. Medical College and B.Y.L. Nair College responded positively, so far.

First Year medical students of these 2 medical colleges are exposed to the subject when they visit Acworth Municipal Hospital for Leprosy (AMHL) for one day. They are shown slides, patients and the physiotherapy material.

Internees are given orientation course in leprosy at the Urban Health Centers. Final Year students during their term in PSM dept., are given full length three lectures on leprosy by leprologists.

Students of Nursing Colleges are given lectures and are shown patients along with a visit to the MCR unit in AMHL.

CME carried out by Master Trainers (Leprologists) in Mumbai from June 2004 to June 2007	
MOs	: 386
Homoeopathy students	: 77
PMWs	: 247
Nurses	: 172
PHNs	: 19

CME for MOs of Municipal Corporations of Thane, Kalyan, Dombivli, Ulhasnagar & Navi Mumbai by Master Trainers (June 2004 to June 2007).	
MOs	: 61
PMWs	: 26
Nurses	: 242
PHNs	: 9
Pharmacists	: 12
PMPs including Mumbai	: 565

Methodology in other Districts by selected faculties

The seven modules were made available to dermatologists, surgeons (general & orthopedic), physicians, MOs of Govt. depts., and physiotherapists in 4 Districts, namely, **Sangli, Kolhapur, Sindhudurg and Nanded.** The activity was coordinated by HKNS –MB.

These modules were discussed with the potential faculties and their suggestions were taken into account. They were requested as to not to deviate from Govt. policy of Fixed Duration Treatment (FDT) with Multi Drugs and for that matter grouping of patients.

Data from 4 Districts in one year:

889 medical and paramedical students covered from 15 colleges and 140 PMPs were covered in Nanded and Sindhudurg districts.

CME programmes undertaken by faculties and coordinated by PKNS in Panvel Bloc of Raigad Dist.	
MOs	- 20
Health Assistants	- 22
ANMs	- 65
MPWs	- 72
HVs	- 4

CME in Nagpur city which was coordinated by an Organisation called as 'Sangam'.

60 physiotherapy and occupational therapy students were exposed to the subject with the help of local faculties for one day.

CME in progress

Methodology of CME (hands on training) in different Districts (Gondia, Gadchiroli, Thane, Raigad, Nashik, Nandurbar) by LEAP Support Team for the staff members at respective Leprosy Referral Centers.

Staff of Primary Health Centers, Rural Hospitals and District Hospitals is given lectures as well as demonstrations of patients and are taught to handle wax bath, muscle stimulator and splints etc.

CME done so far in 6 Districts:

No. of workers trained : 200

No. of doctors trained : 18

CME programmes by LEAP Support Team in different Districts:

Dist.	PMPs	Govt MOs
Gondia	20	72
Gadchiroli	—	20
Nandurbar	—	45
Wardha	55	—

Dist.	PMW / Students	Pharmacy Students
Gondia	60	—
Gadchiroli	—	—
Nandurbar	—	—
Wardha	—	60

Clinical & practical training in progress

Hands-on-training in progress

How to assess the impact?

- Increase in the number of new cases?
- Increase in the number of cases for POD?
- Increase in the number of cases with complications of leprosy for treatment?
- Increase in the follow-up of patients with Grade-II deformity and increase in the referrals of patients at risk?
- Increase in the self confidence of doctors and workers in confirming diagnosis and follow-up of the case thereafter?

The replies to the above mentioned 5 questions, perhaps will give the impacts of the CME programmes undertaken in the respective areas for the respective persons.

Impact of CME ?

We have not undertaken Pre & Post test knowledge of the trainees.

The effect of prolonged vertical programme of leprosy on the health workers including doctors is still there and there is a tendency to avoid anti-leprosy work. The concerned general health staff members still do not undertake the ownership of the leprosy programme. It is observed that they are indifferent to the duties that are integrated with the leprosy programme. There is difference between Information & Education of every subject of health. The instillation of motivation about leprosy programmes will take time to happen in the minds of the General Health Care staff.

It is like throwing seeds on the cultivated land by the farmer. Some seeds will germinate and some will not, that is the experience. The same thing happens in CME programmes. Some trainees put into practice the knowledge which they have perceived. Whereas, some are indifferent to the information which they have received.

The competitive examinations in leprosy for medical under-graduates and internees under the auspices of Research Society of AMHL and Gandhi Memorial Leprosy Foundation, with cash incentives, reveal that all the students are not equally sensitive in giving positive response to the said competitions of RRE Society & GMLF.

Conclusion:

After our experience of the last 3 years regarding CME for different cadres in different areas, we have concluded that

- There is no alternative for CME
- CME has to continue even after elimination of leprosy from nook & corner of the country takes place and
- CME can be managed by local faculties other than leprologists provided they are oriented before-hand and are supplied with necessary books and equipments.

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Concluding session

Strategies for new case detection during integration phase

Chairman: Mr. V. Ranganathan
Co-Chiarman: Dr. P. L. Joshi

Panel:
Dr. K. V. Desikan
Dr. P. Krishnamurthy
Dr. P. V. Ranganadha Rao
Dr. R. Ganapati
Dr. B. K. Girdhar
Mr. M. V. Jose
Dr. Ashok Ladda
Dr. P. Narashima Rao
Dr. V. V. Dongre
Mr. A. Antony Samy

Group work sessions

Strategies for new case detection during integration phase

Group - 1

Methods and means for early case detection with special focus on cases of consequences (Strategies)

Chairman : Dr. R. Ganapati
Co-chairman : Dr. P. V. Ranganadha Rao
Rapporteur : Dr. Sachin Salunkhe

Summary of discussions

Although the members of the group primarily agreed that each and every new leprosy case is potentially a 'case of consequence' in the broader sense, it is necessary to define the 'cases of consequence' in specific terms for operational reasons. In consensus, the group had defined a 'case of consequence' as *'any person who has the potential of spreading the disease or developing leprosy related complications before treatment and / or any leprosy patient who needs further intervention or referral during the course of treatment'*. The following are the 'risk' factors identified to categorize a leprosy case as a 'case of consequence':

- All skin smear positive cases.
- Patients having multiple skin lesions.
- Patients having trunk nerve involvement.
- Patients having large lesions on the face or around the eye.
- Patients having lepra reaction.
- Patients with grade 1 deformity.

Group- 2

Methods and tactics needed to make IEC an effective means to promote voluntary reporting and referrals (Strategies)

Chairman : Dr. P. Krishnamurthy
Co-chairman : Dr. Pramila Barkataki
Rapporteur : Dr. Shradda Hande

Summary of discussions

Following the integration of leprosy programme into the GHC voluntary reporting of new cases depends on effective IEC. Hence, health education needs to be modified according to current needs based on scientific facts about leprosy. The group also realized that a single module or method on IEC cannot be used commonly for all the community, as different communities will need different kind of approach, materials and means.

Group - 3

Plan and scheme required to ensure quality of diagnosis and timely treatment (Strategies)

Chairman : Dr. P. L. Joshi
Co-chairman : Dr. P. Vijayakumaran
Rapporteur : Dr. Leena

Summary of discussions

After considering the strength and limitations as regards implementation of NLEP in the integrated system, the group discussed issues under two major areas – strengthening the existing GHC system and providing new inputs. This has to be achieved through appropriate training and supervision at three levels – i. peripheral health workers, ii. PHC and iii. District hospitals . New inputs were identified such as strengthening the referral services and capacity building.

Strategies for new case detection during integration phase

Recommendations

A. Methods and means for early case detection with special focus on cases of consequences (Strategies)

Recommendations (Group - 1):

1. The information or messages in the IEC materials need to focus on the 'risk' factors (Ref. Pg. 64) and create awareness for early identification of cases of consequences in the community with an equal emphasis on skin patches as well as on smooth, oily and shiny skin.

2. Methods to identify the risk factors among all new leprosy cases and the suspect cases who need skin smear examination should be given more emphasis while imparting training to all GHC personnel and leprosy workers.

3. Appropriate training materials on early detection of leprosy related complications need to be developed and distributed to all GHC workers.

4. All new patients with one or more of the 'risk' factors must be subjected for detailed nerve function assessment at the referral level or at Leprosy Referral Centres.

5. The list / details of referral centres providing certain specialized care to leprosy patients with complications should be made available at all GHC centres.

6. Proper and relevant baseline clinical information with respect to 'risk' factors need to be recorded in addition to the routine SIS to promote appropriate POID / Care / DPMR.

7. Examining the family contacts of all new leprosy patients must be done routinely to detect new cases early.

8. CME on leprosy for medical personnel including practicing dermatologists need to stress on early detection and proper management of leprosy related complications.

B. Methods and tactics needed to make IEC an effective means to promote voluntary reporting and referrals (Strategies)

Recommendations (Group - 2):

9. IEC activities should be decentralized and should be planned by the field level workers who know the real state of disease burden in the community and the socio-cultural milieu.

10. Before implementing IEC activity in any community, the baseline information on the target population should be collected through a simple questionnaire or by interviewing the suspects who report to the GHC for diagnosis.

11. Professionals or specialists in the mass communication should be consulted in

developing and selecting suitable IEC materials and involve them to study the effect of IEC activities in the selected community.

12. Various stakeholders such as community leaders, school teachers, traditional healers, ICDS and ASHA workers etc should be involved in IEC campaigns for greater impact of IEC in the community.

13. IEC through mass communication media with appropriate health messages to be used in par with regard to Polio, TB and HIV campaigns.

14. A scientific study of the impact of IEC in stigma reduction need to be done periodically so that timely intervention could be initiated or modification made for better effectiveness.

15. The IEC team should preferably undertake sustained campaigns by staying in the local community and study the health seeking behaviour and then plan focussed IEC programmes to impart knowledge on leprosy.

C. Plan and scheme required to ensure quality of diagnosis and timely treatment (Strategies)

Recommendations (Group - 3)**:**

16. Need to improve the skills of peripheral health workers from GHC in identifying / suspecting leprosy and efficient MDT delivery through training.

17. Need to improve the diagnostic skill of the Medical Officers in GHC facilities through practical training.

18. Need to improve the supervision of GHC staff by the MO-GHC through on the job training and monitoring by the leprosy staff of NGO or District Nucleus Team.

19. Need to assist the GHC system in managing difficult patients (diagnosis & management of early leprosy and complications in leprosy) by providing effective referral linkages to Leprosy Referral Centres or appropriate institutions.

20. Need to involve specialist such as orthopedics, dermatologist, physio/ occupational therapist at every level, especially in urban settings where sizable group of population receives health care.

21. Need to establish new or strengthen the facilities for skin smear examination at district hospitals, medical colleges and all Leprosy Eeferral Centres for the diagnosis of early MB leprosy (lepromatous leprosy).

22. Need to improve the technical skills and competence of District Nucleus Team which is responsible for training and monitoring NLEP activities including drug supply management at sub-district level.

23. Need to include leprosy CME with CME for other communicable diseases for general medical practitioners as they can play a significant role in diagnosis and management of leprosy in their practice.

24. Need to orient the final year medical students and the interns in all medical colleges who can effectively contribute to diagnosis and treatment of leprosy and to include modern concepts of leprosy and programme priorities in the curriculum of medical education.

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Inaugural Session

L to R: **Dr. P. Krishnamurthy,** Secretary, Damien Foundation India Trust, **Chennai**; **Dr. K. V. Desikan**, Chairman, Gandhi Memorial Leprosy Foundation, **Wardha**; **Dr. P. L. Joshi**, Dy. Director General of Health Services (Leprosy), **GOI; Dr. Ashok Ladda**, Jt. Director of Health Services (Leprosy), **GOM** and **Mr. A. Antony Samy,** Chief Executive, ALERT - INDIA, **Mumbai**

Session - I

Chairman : Dr. P. Krishnamurthy
Secretary, DFIT, Chennai
Co-Chairman: Dr. P. V. Ranganadha Rao
Chief Executive, LEPRA India, Secunderabad

Dr. Anil Kumar
Deputy Director
NJILCD, ICMR, Agra

Dr. P. Narasimha Rao
Dermatologist
Gandhi Medical College, Hyderabad

Dr. Robins Theodore
Medical Superintendent
TLM Hospital, Vadathorasalur, TN

Dr. Aparna Pandey
Deputy Director
RLTRI, ICMR, Raipur

Session - II

Chairman : Dr. B. K. Girdhar
Dy. Director, NJILCD, Agra
Co-Chairman: Mr. M. V. Jose
Representative, AIFO, Bangalore

Dr. W. S. Bhatki
Executive Director
Maharashtra Lokhita Seva Mandal,
Mumbai

Dr. V. V. Dongre
Senior Consultant - LEAP
ALERT - INDIA, Mumbai

Mr. S. Kingsley
Coordinator, Epidemiological Monitoring Unit
ALERT - INDIA, Mumbai

Mr. Joy Mancheril
Director - General Administration
ALERT - INDIA, Mumbai

Mr. A. B. Prabhavalkar
Coordinator - LEAP Partnership
ALERT - INDIA, Mumbai

Views that matter . . .

'As a strategy for new case detection, the NLEP proposes a broader partnership that will help in mobilizing new expertise and technical resources for implementing innovative strategies at all levels'.

Dr. P. L. Joshi, *DDG (Leprosy)*
Central Leprosy Division, GOI

'Elimination does not mean the end. We could expect new cases, although in small numbers. It would be extremely important to detect new cases and register them immediately for treatment. This is an ideal approach'.

Dr. K. V. Desikan, *Chairman*
Gandhi Memorial Leprosy Foundation, Wardha

'There are several reasons for the sudden and sustained fall in new case detection in India. Some are apparent and others are obscure. Some are tenable and others are tenuous. It is not easy to quantify the magnitude of the effect of these factors'.

Dr. P. Krishnamurthy, *Secretary,*
Damien Foundation India Trust, Chennai

ALERT - INDIA

strives towards
programmes focussing on
community partnership strategies
to achieve the goal of leprosy elimination
during the integration phase,
in alliance with all stakeholders,
to make leprosy elimination a reality for people.

Vision