

## Selective Special Drive (SSD): An Effective Tool to Promote New Case Detection Through Community Participation – An Experience during 2005 – 2010 in Mumbai Slums

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As per the Guide lines of National Leprosy Eradication Programme (NLEP), Government of India, new case detection (NCD) in leprosy is to be promoted by voluntary reporting through Information, Education and Communication (IEC). Accordingly, in addition to the routine IEC activities, Maharashtra Lokahita Seva Mandal (MLSM) carried out Selective Special Drive (SSD) in slum pockets in Mumbai since 2005-06. The SSD methodology prescribed under Leprosy Elimination Action Program (LEAP) of ALERT-INDIA was adopted which included selection of slum pockets, identification and training of Community Volunteers (CVs), door-to-door focused IEC through CVs using standard IEC material and referral of voluntarily reported suspected cases to nearby Health Posts under General Health Services or to Leprosy Referral Centre (LRC) established through MLSM for diagnosis and treatment. During the years, 2005-06 to 2009-10, MLSM conducted five annual SSDs in 53 slum pockets having 187,391 house-holds with the total enumerated population of 882,114 of which 563,040 (63.8 %) could be covered through house-to-house IEC by 772 trained CVs/CHVs. As a result, 108 new cases (PB - 79 and MB - 29) were detected with the NCD rate ranged between 13 /100,000 and 34/100,000 which is much higher than the reported NCDR in Mumbai (i.e. 6/100,000). Of the new MB cases 6 were lepromatous leprosy cases. Voluntary reporting of new cases was also found to be enhanced during the subsequent period following SSD. SSD activity encourages intensified IEC with community participation and integrates General Health Services resulting into better voluntary reporting of new cases. It is, therefore recommended that the SSD with the methodology prescribed under LEAP may be considered for incorporation in NLEP.

**Key words :** Selective Special Drive (SSD), Community Volunteers (CV)

### Introduction

Maharashtra Lokahita Seva Mandal (MLSM) is one of the German Leprosy Relief Association

(GLRA) supported NGOs, carrying out National Leprosy Eradication Programme (NLEP) since 1970 in Mumbai, the capital city of Maharashtra.

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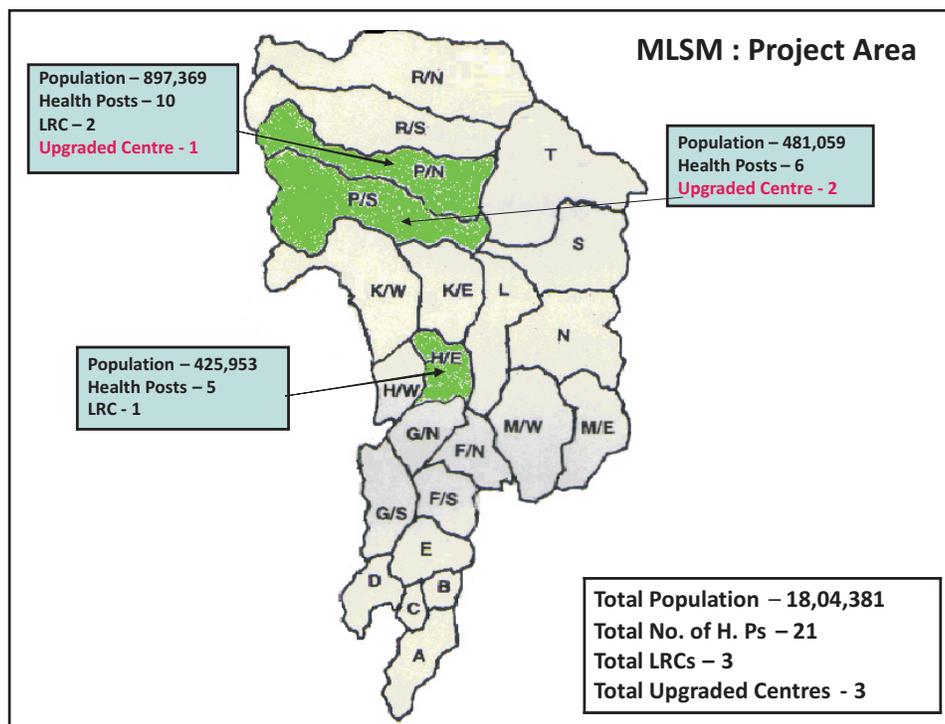
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**Fig. 1 : Map of Mumbai showing MLSM Project Area with distribution of Health Posts and LRCs.**

The project area of MLSM covers 21 Health Posts [- Health Post is the Primary Health Care unit under Municipal Corporation of Greater Mumbai (MCGM); Each health post is intended to cover a population size of 60,000 – 120,000] with the total population of 1,804,381 (i.e. 13.4% of total population of Mumbai) in 3 Municipal Wards of Mumbai of which about 63 % people live in slums or in slum like dwellings.

The programme activities are primarily based on the NLEP guide lines issued and modified periodically by the Govt. of India. The year wise new cases, the balance active cases and prevalence per 10,000 population in MLSM project area show progressive decline since 2001. The MLSM reached national goal of Leprosy Elimination (i.e. prevalence < 1 / 10,000) in its project area, in 2004 (MLS M 2010).

As per Government directives, the active surveys for leprosy case detection have been stopped since April 2004 in Mumbai (Govt of Maharashtra 2004, Hogerzeil and Reddy 1982). The emphasis has been on voluntary reporting of cases through Information, Education and Communication (IEC) activities. The programme also emphasized on taking steps to integrate leprosy services with general health services.

Accordingly, all NLEP partners in Mumbai stopped active surveys and took up IEC activities for case detection. To promote these policies in more intensified manner in order to achieve higher level of leprosy elimination and for enhancing the process of integration, the Leprosy Elimination Action Programme (LEAP) was launched in Mumbai by ALERT-INDIA, one of the NLEP partners in Mumbai.

Selective Special Drive (SSD) in slums, one of the activities proposed under the LEAP, is based on following primary objectives (LEAP 2005).

1. Promoting voluntary reporting of new cases through focused door to door IEC.
2. Encouraging community participation by involving community volunteers in leprosy elimination programme.
3. Elevating the level of Integration of leprosy services into General Health Services.

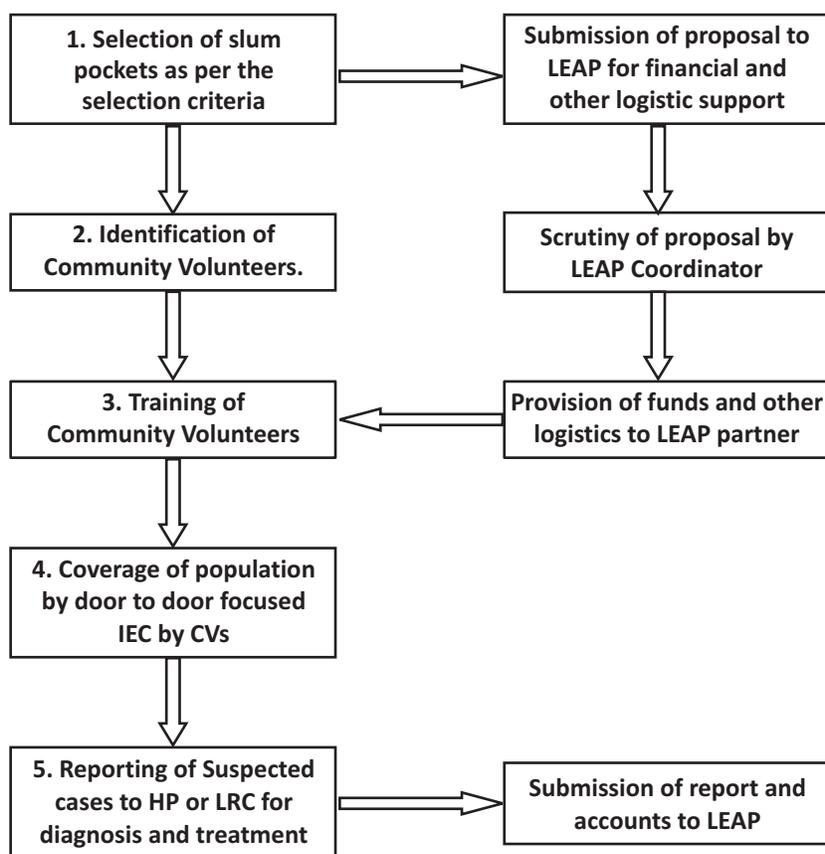
Ten other NLEP partners (i.e. 4 Spervisory Urban Leprosy Units of GOM, Acworth Leprosy Hosp. of MCGM and 5 NGOs) in Mumbai also carried out SSDs occasionally in their respective project areas with LEAP support.

In the present paper, we report on the approach and results of Selective Special Drive (SSD) undertaken by MLSM in the slum pockets of its project area during five years, i.e. 2005-06, 2006-07, 2007-08, 2008-09 and 2009-10. The results primarily highlight the ability of SSD in promoting new case detection through a novel idea of utilizing community volunteers for door to door IEC campaign.

**Methods**

**SSD Approach**

SSD methodology is prescribed in Focus Series 3, LEAP publication of ALERT-INDIA (LEAP 2005) and subsequently modified in the meetings of NLEP partners in Mumbai. It was implemented as follows:



### **Selection of slum pocket**

The slum pockets with consistently low prevalence and low new case registration were primarily selected for the SSD in first 2 years. However, subsequently, the selection of slum pockets for the SSD was also based on high levels of multi-bacillary (MB) and child case patients. In the year 2005-06, smaller slum pockets were selected for SSD. However, once the activity was tested and found to be feasible and effective, the larger slum pockets had been selected in the subsequent years. In the years 2008-09 and 2009-10, 11 and 15 larger slum pockets respectively, were selected mainly to cover the entire left over slum population. Thus during five years of implementation, SSD was conducted in 53 slum pockets with total enumerated population 882,114 (i.e. 78 % of slum population in MLSM project area).

### **Identification of Volunteers**

In each Health Post under MCGM, about 15 female Community Health Volunteers (CHVs), coming from the local community are employed to carry out various community based health programs. For the services rendered, they receive monthly stipend from MCGM.

With the help of CHVs and NLEP field staff, local community volunteers (CVs) were identified to participate in the SSDs. The CVs were predominantly from the age group of 18 to 35 and had passed Secondary School Certificate Examination as minimum qualification. Three to four CHVs from the respective Health Post and the male/female CVs, identified from the local community participated in SSD activity with financial incentives from LEAP. Depending on the population size of slum pocket, a team of about 10 -20 CVs was selected for each slum pocket. In 5 years under the report, 582 CVs and 190 CHVs (total 772) participated in SSD activity.

### **Training of CVs/CHVs**

Two days training of CVs was conducted by the MLSM staff (i.e. Medical Officer, Non-Medical Supervisor and Para-Medical Worker) in the premises of Health Post or in the Community Halls in the slums.

The training was conducted by using slide shows, albums, diagnostic cards, games, role plays and interactions on different clinical and operational aspects of leprosy.

The topics, covered during the training of CVs included orientation on etiology, clinical features with emphasis on Lepromatous leprosy, treatment and complications of leprosy. This being a task-oriented training, there was special stress on communication skills, use of albums and other IEC material at the door to door campaign and filling up of forms and preparation of daily reports.

### **Coverage of Population by CVs/CHVs**

Depending on the size of population, about 10-20 CVs/CHVs covered each slum pocket by visiting all the houses in the area allocated to each one of them. Daily targets of house visits were fixed so as to cover the entire slum pocket in 5 working days. Each CV/CHV visited about 40 houses every day.

On each door to door visit, the members belonging to the house were enumerated and the members actually present were informed about leprosy with the help of albums and diagnostic cards. Pamphlets giving information on leprosy were distributed in each house.

The entire door to door campaign was monitored and supervised by the MLSM field staff, i.e. Non-Medical Supervisors (NMS) and Para Medical Workers (PMWs) of the respective area.

The suspected cases were advised to attend nearby Health Post or Leprosy Referral Centre (LRC) established under LEAP for diagnosis and treatment.

### Voluntary reporting of cases

During the SSD campaign and few days thereafter, the suspected cases self visited the Health Posts or LRC in the vicinity for getting examined by the Medical Officers. The treatment of confirmed cases was carried out at the Health Posts.

During the entire process of SSD, the Medical Officers and the other Para-Medical staff of Health Posts were involved in all stages, i.e. fixing the dates of SSD activity, making CHVs available for about 7 days, providing space and other facilities for CVs training and for examination and treatment of suspected cases at the Health Posts.

### Procurement of Funds and other logistics

On submission of proposal for undertaking SSD in the selected slum pocket, the LEAP of ALERT-INDIA provided funds to meet the expenses for payment of cash incentives to CVs/CHVs and to NLEP staff, for food and refreshment during training and for other incidental expenses. All the IEC material (i.e. booklets on leprosy for CVs, albums, diagnostic cards, exhibition sets,

banners/stickers/posters, pamphlets, survey forms and all reporting forms etc.) and the aids for conducting training (i.e. LCD projector, lap-top etc.) were provided by LEAP.

For first two years the funds were provided on actual basis. However, after having several discussion meetings with the LEAP partners in Mumbai, since 2007-08, the LEAP streamlined the provision of funds in the form of a package. For conducting one SSD in urban slum pocket of about 25,000 population (about 5000 houses) with participation of 20 CVs/CHVs and 4 NLEP staff (MO-1, NMS-1 & PMWs-2), LEAP provided funds of Rs. 24,000/-. In addition to this, LEAP also provided the other logistic support with approximate cost of Rs. 2000/- per SSD.

### Results

The SSD was conducted in 53 slum pockets, 9 each during first 3 years and in 11 and 15 slum pockets in fourth and fifth year respectively. Out of 882,114 population enumerated in 187,391 house holds, the population of 563,040

**Table 1 : Results of SSDs conducted in the years 2005-06, 2006-07, 2007-08, 2008-09 & 2009-10**

Year	No. of slum pockets	No. of CVs/ CHVs	Enumerated Population	No. of House holds	Population covered	Suspected cases	Confirmed cases	NCDR/ 100,000
2005-06	9	65/35	39,256	7,611	26,113 (66.5%)	26	9	34
2006-07	9	60/32	99,093	21,687	67,398 (68%)	27	18	27
2007-08	9	59/31	130,238	26,030	83,323 (63.9%)	33	11	13
2008-09	11	146/37	238,923	49,498	149,360 (62.5%)	77	32	21
2009-10	15	252/55	374,604	82,565	236,846 (63.2%)	84	38	16
<b>Total</b>	<b>53</b>	<b>582/190</b>	<b>882,114</b>	<b>187,391</b>	<b>563,040 (63.8%)</b>	<b>247</b>	<b>108</b>	<b>(PB-79 &amp; MB-27)</b>

(63.8%) was covered by 772 trained CVs / CHVs. Of the total 247 people reported to Health Posts / LRCs as suspected cases, 108 were confirmed as leprosy cases (PB-79, MB-29) giving average NCDR ranging from 13/100,000 to 34 /100,000. (Table 1).

The MB cases detected in the SSD included 6 untreated lepromatous patients, 3 referred by CVs during the campaign, 2 brought by the relatives and 1 came on his own to Health Post for examination within a week following SSD. They all carried pamphlets on leprosy distributed during the SSD in the area where they resided. The diagnosis and classification in these 6 cases were confirmed by skin smear examination done at LRCs which showed high BI (3+ to 5+). The MB cases also included a new case of Type I Reaction referred by CVs during the campaign.

During the subsequent period of couple of months following SSD, 97 additional new cases (PB-60 and MB-37) were reported voluntarily from the Health Post areas where the SSD was conducted.

### Discussion

The effective leprosy control programme is basically judged by its capacity to detect new leprosy cases at early stage and to bring them under regular MDT thereby containing spread of leprosy and reducing nerve related impairments. However, the Operational Guidelines (2006) issued by WHO (WHO 2006) clearly state that "Active case detection is not recommended except in hard to reach areas where health infrastructure is inadequate". It is further suggested that the National Programmes should encourage voluntary reporting of cases promoted through Information, Education and Communication (IEC) activities.

"A Manual on National Leprosy Eradication

Program for Doctors", issued by the, Govt. of Maharashtra (Govt of Maharashtra 2004) clearly mentions that "Active Surveys have been banned by GOI as with declining prevalence, organization of surveys become costly ..." In accordance with the Govt. of India policies, the manual also emphasizes promotion of voluntary reporting of leprosy cases through intensive IEC. The specific guidelines had been issued by the State Govt. to all NLEP partners. Accordingly, since April 2004, all active surveys had been ceased in Mumbai (NLEP 2011).

It has been observed that the new leprosy cases detected through active surveys constituted 25 - 40% of the total Annual New Case registered in Mumbai (NLEP 2011, Bhatki 1988). Further analysis of the results found that the active surveys could bring out mostly early skin lesions of leprosy. The detection of "leprosy cases of consequence" has always been late and has predominantly been through referrals or by voluntary reporting (Bhatki 1988). The active surveys thus, are not cost effective and therefore should be discouraged.

It should be noted that "the active survey for leprosy case detection" was the main activity for last several decades that kept every leprosy worker occupied for almost 2 weeks every month. However, as per the Govt. orders, 'surveys' have been halted from April 2004 onwards, creating a vacuum in the activity at the individual worker level. Further there were no clear guide lines by which the IEC was required to be intensified. Sudden drop in annual new case detection in Mumbai after 2004 (NLEP 2011) could be attributed to cessation of active surveys and general low pace of programme activities in Mumbai. In MLSM project area, the drop observed in the annual new cases in the years 2004-05 and 2005-06 (i.e. 43% & 47%) was much

higher than the same observed during years 2002-03 and 2003-04 (i.e. 9% & 23%) (MLSM 2010).

Though, the process of integration of leprosy programme with general health services was started in Mumbai since 2004-05, the responsibility of undertaking NLEP activities in the project area is with the respective NLEP vertical staff still operating in Mumbai. Hence, the change in the focus from active survey to IEC for case detection was also expected to be implemented by the NLEP vertical staff.

The 'Education' component of SET programme has always been neglected especially during the MDT era. In the post elimination and Integration phase of NLEP, there is emphasis on IEC not only for bringing about community awareness but also for promoting voluntary reporting of new cases.

A field study carried out in Mumbai using Non-survey techniques of case detection mainly based on Health Education activities showed that significant number of new cases including smear +ve leprosy could be voluntarily reported through well planned health education programmes (Ganpati et al 1984). Similar study carried out at Dichpalli, India also showed effectiveness of health education not only in case finding but also in case holding (Hogerzeil and Reddy 1982). A study conducted in urban areas in Odisha concluded that health education in the community improved self reporting of new cases and reduced incidence of deformity at diagnosis, thus decreased the stigma of leprosy (Swain et al 2004). On the other hand, a report on evaluation of IEC under NLEP (March 2008) states that only 15% of the respondents received information about leprosy through health workers (CMS 2008). Further, an assessment on the awareness about leprosy among adult community members revealed that majority of them perceived signs

and symptoms of leprosy very poorly and showed prejudice towards leprosy. The study also concluded that the NLEP infrastructure and mass media could not educate community effectively (Kumar et al 1983).

In view of the fact that the routine Health Education activities in the present form undertaken by the NLEP staff, without proper direction and motivation, are unable to make any visible impact on self reporting of suspected cases of leprosy, the Selective Special Drive (SSD) in slums was introduced by the Leprosy Elimination Action Program (LEAP) of ALERT-INDIA to the staff of MLSM and to other NGOs for implementation in Mumbai. Since SSD is mainly based on focused door to door IEC with community participation by a novel idea of involving Community Volunteers and since it is to be conducted in the form of campaign, the MLSM field staff accepted this new approach of health education with added zeal and enthusiasm.

In the first year (2005-06), the SSD was conducted in 9 smaller slum pockets to assess its ability to entice self reporting of new cases and to see its feasibility of involving Community Volunteers in the leprosy control program. Encouraged by this experience, the SSDs were carried out with the participation of fresh batches of CVs/CHVs in larger slum pockets in the subsequent years.

With the help of existing CHVs, the NLEP staff could identify and motivate youths from the local community to undergo training in leprosy and to practice the knowledge gained by disseminating the same by door to door campaign. In the five years under report, a significant number of youths from local community (i.e. 582 CVs and 190 CHVs) got opportunity to be exposed to the knowledge of leprosy for the first time and to participate in the programme. These trained CVs/CHVs are looked upon as the future "spokes persons" for leprosy in the community they

belonged. This could be considered as good example of direct participation of community in leprosy control programme. It may be further noted that the active involvement of medical and paramedical staff of Health Posts in all steps of implementation of SSD in their area has taken one step ahead in integrating leprosy programme with general health services.

The results of SSD in respect of its ability to detect new leprosy cases including the sizable proportion of MB and lepromatous leprosy cases are certainly encouraging. The NCDR per 100,000 populations, observed in SSDs conducted in the five years is significantly higher than the Annual NCDR (i.e. 06 / 100,000) observed in Mumbai (NLEP 2011). The high number of new cases voluntarily reported from the areas after the SSD activity was over, also indicated that the SSD campaigns seem to have sustaining impact on the community.

SSD approach required additional funds of Rs. 24,000/- per SSD of which major portion (Rs. 14,000/-) was spent on payment of cash incentives to CVs/CHVs (@ Rs. 100/- per day per CV for 7 days). Considering the salary being paid to the regular NLEP field staff and the extent of results achieved in SSD both in terms of impressive NCD and the size of population reached, the rate of incentive paid to CVs/CHVs was very modest. However, in future, escalation to the tune of 50-100% in daily cash incentive would be required to make CVs/CHVs participate in SSD with good interest. This could be a major constraint for NGOs to implement SSDs unless the additional funds are assured by Government or by any other funding source.

In view of above, it is observed that the Selective Special Drives advocated by the LEAP and conducted by MLSM in the five years in Mumbai commensurate with the WHO strategy (and that of GOI) of promoting voluntary reporting of

cases through IEC. It is therefore suggested that the SSD, an appropriate intervention for reaching leprosy awareness to the doorsteps of the community through community volunteers which can effectively promote voluntary reporting of new leprosy cases, be widely undertaken for mass application in leprosy control programme.

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