

# Leprosy in India – Latest Picture

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The target was to eliminate leprosy in India by 2005. To attain this all agencies working towards leprosy control in India with the help of WHO and the Global Alliance for the Elimination of Leprosy (GAEL) initiated many measures. One of this was the Final Push for leprosy as a strategy initiated by WHO in 1999. What was the result of this and what is the present status in India now? This is of importance if we consider that most of the new cases are detected in India. In a study conducted in Kollam district in Kerala, several alarming trends were noted.<sup>1</sup>

To analyse the whole picture we need to delve into the past. In 1991, the 44<sup>th</sup> World Health Assembly resolved to eliminate leprosy as a public health problem by the year 2000.<sup>1</sup> Elimination of leprosy as public health problem was defined as reduction in the registered prevalence of leprosy patients receiving MDT to less than 1 per 10,000 population. Subsequent to the worldwide implementation of multi-drug therapy (MDT) programmes, estimated leprosy burden declined from 10-12 million cases in mid-1980s to 1.5 million in 1997. During the 54<sup>th</sup> World Health Assembly held in 2001, WHO declared that the historic target of global leprosy elimination was attained.<sup>2,3</sup> Globally over the last two decades, the registered leprosy prevalence has fallen by almost 90% and new case detection has fallen by about 50%. In terms of new case detection, the global decline is contributed entirely by India. In 1985, 122 countries in the world had leprosy prevalence of over 1 case per 10,000 population. By 2006, this number came down to six countries.<sup>4</sup> These countries are: Brazil, Democratic Republic of Congo, Madagascar, Mozambique, Nepal and United Republic of Tanzania. However, new cases would keep on occurring globally demanding sustainability of leprosy control programmes. In fact, even countries like United States of America continue to report new cases.<sup>4</sup> On 30<sup>th</sup> January, 2006, the Ministry of Health, Government of India formally announced that India achieved the elimination target (leprosy prevalence as on 31<sup>st</sup> December was 0.95 per 10,000).<sup>5</sup>

The elimination slogan has certainly contributed to develop international commitment for reduction in leprosy burden over the years. The focus of the programme should now shift from prevalence oriented targets to sustainable leprosy control and provision of good care for the patient.

## Present picture

New cases detected in India essentially form the global trend. It can be seen that leprosy case detection in various countries other than India, has been more or less stable during the period 1985-2005 with a small spurt in the year 2000. Contrary to the global picture, case detection in India, has shown lot of fluctuations. For the period 1985-1996, case detection has remained stable with only small changes. From 1997 onwards, dramatic changes have occurred and from 2002 there is a precipitous fall in new cases detected.

The second phase of the World Bank supported National Leprosy Eradication Programme (NLEP) was aimed at achieving the elimination target and integration of leprosy control activities within general health services in the entire country.<sup>6</sup> As of March 2006, the registered prevalence of leprosy in India was 0.84 per 10,000 population.<sup>7,8</sup> While 22 states and five union territories reached prevalence levels below 1 per 10,000; six states (Bihar, Chhattisgarh, Jharkhand, West Bengal, Orissa and Uttar Pradesh) and two union territories (Delhi and Dadra & Nagar Haveli) still continued to have prevalence above 1 per 10,000. As of March, 2006 national level new case detection rate was 1.42 per 10,000. Information with respect to new case detection is now collected and updated every month at the state and national levels.

## Factors influencing new case detection rates

The number of newly detected cases is used as a surrogate measure for incidence. The detection rate could be a reliable indicator of trend of incidence rates

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if the delay in detection is constant over the years and case detection methods are the same or standardized. Some other indices namely proportions of MB patients, child patients, and patients with visible (grade-2) deformities among new patients may reflect leprosy trends. However, the argument for considering these parameters lies in constant and standard methodology adopted over several years. New case detection should be analyzed in conjunction with other data. The interpretation should be aided by knowledge about activities in the area.<sup>9</sup>

Case detection is affected by multiplicity of factors as mentioned below:

1. Specificity of the diagnosis: It was observed that over diagnosis was 6-13% in NLEP. Over diagnosis was observed more in urban areas as compared to rural areas. Changing case definitions, different diagnostic criteria used over the years for leprosy, and lack of quality control checks affect both accuracy and comparison between the studies.
2. Sensitivity of the diagnosis: Cases could be missed on account of non-coverage of certain areas or population groups such as working men, difficult to reach areas, tribal population, people below the poverty line etc. Marginalization of some sections of the society on account of gender, and poverty, inaccessibility to health services, opportunity costs, disabilities and stigma associated with the disease were some of the known factors that influence case detection activities.
3. Recycling: Re-registration of old or cured patients as new patients has been observed during the modified leprosy elimination campaigns by the evaluation teams. The range was between 33- 82%. This might be due to lack of supervision; non-adherence to national and international treatment guidelines to show an inflated disease burden in the area.
4. Self-reporting behaviour: It was observed that voluntary reporting in Tamilnadu was 25% in the post-integration period as compared to that of 14% in the pre-integration period.
5. Single-dose treatment for single skin lesion paucibacillary patients: Changes in the treatment criteria affect the case count. It was observed that among paucibacillary (PB) patients with single skin lesions treated with single-dose combination of Rifampicin plus Ofloxacin plus Minocycline (ROM) was almost as effective as standard six months PB-MDT. Single dose ROM was introduced for single-patch cases in the programme from January 1998 and was in vogue for about five years. Apparently these cases were never taken on record since prevalence was the main indicator for judging progress towards elimination. These cases would never come into prevalence since they received only a single dose treatment. They should have been counted as new cases, but it was not clear how these cases were accounted for. There was apparently a tendency to over-diagnose cases of single patches since the treatment was a single-dose and the patients were not counted in prevalence. Use of ROM was eventually discontinued.
6. Case detection methods and intensity: Operational modalities [School surveys, contact tracing, leprosy elimination campaigns (LEC), block level awareness camps (BLAC), health camps etc] do certainly affect case detection in magnitude as well as in quality. Wrong diagnosis chances increase during leprosy elimination campaigns and health camps, if diagnosis of leprosy is left to the poorly trained personnel.<sup>10</sup> This has been observed in several leprosy endemic countries. Before launching of MDT programmes, intensive case detection activities were generally taken up in different regions. In addition to leprosy elimination campaigns, these special case detection programmes helped in clearing backlog of cases. These activities also showed sharp increase in new case detected and subsequently new case detection used to drop back.
7. Targets: Targets provide an inescapable sense of urgency among the health workers. This in turn places excessive, counterproductive pressures and demands on them as well as others. Case detection rates are adversely affected by these kinds of administrative and managerial decisions.<sup>11,12</sup> It had been observed that the target allocation obscures NCDRs both in the integrated set up (like Tamil Nadu) and elsewhere where integration has not taken place. Nevertheless, it is argued that target allocation generates political commitment in pushing the elimination efforts ahead and achieve results, which otherwise would not have been possible. In the NLEP, the targets were of two kinds. First one was to achieve at least a minimum specified number of cases and the other was with respect to march towards elimination by the year 2000, pre-fixing prevalence figures for the year. To achieve the goal of elimination by the year 2000 targets were prepared after committing to the goal of elimination and projections were made based on such targets. Finally, setting targets were considered

counterproductive to the assessment of surveillance data. Incentive structure for annual targets and incentives for staff had been discontinued by the Government of India.<sup>13</sup> Case detection trends should be assessed in the context of vertical and integrated setups and the policy of targets during particular periods. Although, the Government of India had discontinued the practice of setting targets to the peripheral level workers for case detection, targets are mentioned in the form of goals / expectations at the State and National level according the national action plan 2005-06 of NLEP<sup>24</sup>. Practice of monthly review and update of cases detected and number of cases released from treatment continues to put pressure on the state level programme to somehow achieve elimination at the individual state level and beyond even the district / block level.

- Operational factors: LECs and modified LECs (MLEC) were discontinued from 2002 onwards. It was observed in some states, continued MLECs did not continue to have high case detection. Using this as evidence, MLECs were discontinued. Further, it was realized that campaigns come in the way of general health services and various health activities conducted by general health workers. Thus, campaigns are not a sustainable approach in an integrated set up. Even though, it was expected that removal of MLECs would not affect case detection, in practice, number of cases came down sharply as could be seen from 2002 onwards.

## END NOTE

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