

Eliminating Leprosy in India – Is it a Dream?

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In recent years there have been considerable discussions on the current leprosy situation in India and the status of the country's attempts to eliminate or eradicate the disease. In this connection it is very important to analyze the background and various developments relevant to leprosy elimination in India.

Concept of Elimination of Leprosy as a Public Health Problem

The concept of elimination of leprosy as a public health problem was developed by WHO in 1990's following the advent of the WHO recommended Multi Drug Therapy (MDT) in successfully combating the disease and the potential it offered to reduce the disease burden in the community drastically when combined with early detection of cases and ensuring of prompt completion of treatment. As a result WHO set a target in 1991 through a World Health Assembly resolution (WHA.44.9) of reducing the prevalence of the disease to less than one case per 10,000 population globally by the year 2000.

It should be recognized that 'elimination' of any disease including leprosy is quite different from 'eradication', where eradication is unanimously agreed to as attaining total absence of the disease and its disease agent everywhere. On the other hand the term elimination has been defined differently for different diseases and by different groups and there is no common definition agreed

to by all. It was because of this WHO, for the purposes of leprosy, defined it clearly as 'elimination of leprosy as a public health problem' and further defined it as attaining a level of prevalence below one case per 10,000 population. A considerable amount of misunderstanding on this issue is due to people often confusing leprosy elimination with leprosy eradication. Elimination of leprosy as vigorously promoted by WHO is clearly an intermediate goal between control and eradication. While in many diseases disease eradication, if at all, can only be a very long term goal, disease control often implies maintenance of status quo without further deterioration. It was because of this the term elimination was preferred in leprosy.

The next question that arises with regard to elimination of leprosy as a public health problem is the target population and the target date. Although the 1991 WHA resolution mentioned global level elimination the implication was that the target should be attained in every leprosy endemic country. Although leprosy elimination

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was attained as a global average by the target date of 2000, at the country level elimination through attaining a prevalence level below one case per 100,000 population has eluded a small number of countries including some large sized ones such as Brazil and Indonesia.

The Situation in India and the Progress made So Far

India has always been the number one country in the world as far as number of cases was concerned. India's share of prevalence of leprosy in the world has varied between 70% in 1992 to 49% in 2012. Similarly its global share of annual new cases detected has varied between 77% in 1992 to 58% in 2012.

With regard to elimination of leprosy in India although it has reached its elimination target of prevalence of less than one case per 10,000 as a national average in 2005 at the state level it has not been able to reach its prevalence target in five states (including one U.T.).

One of the striking features of leprosy in India is the wide variations in Case Detection Rate (CDR), which is also referred to as NCDR or ANCDR seen from state to state and from district to district. A CDR target of less than 10 new cases per 100,000 population has increasingly replaced the prevalence target of one prevalent case per 10,000 population in recent years as it is more sensitive to changes even as it runs in parallel to prevalence rate for several years now. While the current CDR, as a national average, is 10.8 per 100,000 population the state to state variation among major states ranges between 1.5 in Rajasthan to 30.5 per 100,000 in Chhatisgarh. At the district level the variation in CDR is even wider and is between 0.16 per 100,000 in Jalore district of Rajasthan to 139.2 per 100,000 in Dang district of Gujarat.

In terms of the case detection target of attaining a level of CDR below 10 new cases per 100,000

population, there are currently 9 states in India which have case detection rates above this target level. At the district level CDR target has not yet been attained in 206 of the 649 districts in India and these districts are distributed in 17 states, including 36 districts from 8 states which have reached the CDR target at the state level.

Stagnation in CDR in India.

As a national average CDR in India which showed steep reductions till 2007 has tended to remain stagnant in recent years with only relatively minor variations from year to year. If one compares the period between 1993 and 2007 with the period between 2007 and 2012 one can see a big difference. For the country as whole while the mean annual reduction in CDR between 1993 and 2007 was 5.15%, the mean annual reduction was only 0.42% during the period between 2007 and 2012. Although stagnation in CDR is not unique to India and is also seen in some other countries, it is important to recognize that there are a number of countries which have performed very much better than India. While India showed a mean annual reduction in CDR of just 0.42% between 2007 and 2012, there are at least 11 other large endemic countries that have performed much better with mean annual reduction in CDR between 2007 and 2012 of 3.70%. Further if one looks at just the six neighbouring countries bordering India (i.e.) Bangladesh, China, Myanmar, Nepal, Pakistan and Sri Lanka the 6 countries together have shown during the period 2007 - 2012 a mean annual reduction of 4.02% compared to 0.42% by India. Thus the situation in India is particularly unfavorable compared to many other endemic countries.

The way forward.

The discussion so far clearly indicates that in its pursuit towards leprosy elimination India is performing much worse than most other

countries specifically in the last 5 to 6 years. At the same time the scope and opportunities to reduce leprosy to relatively insignificant levels over the next 5 to 10 years is quite enormous. We can see this not only from the performances of several countries which have done very well as well as from India's own experience in 1990's and early 2000's when it was possible to embark on massive and intensive efforts to detect cases early and bring them under MDT. The recent stagnation can therefore be attributed to the complacency that had set in as a result of early successes. The period of complacency has coincided with (a) termination of large scale funding as well as technical support from agencies such as World Bank, Danida and some others, (b) substantial reduction in district level support by ILEP

(International Federation of Anti Leprosy Associations) agencies, (c) Integration of leprosy with general health services without adequate preparation and continued technical support, and (d) reduced political will particularly at the state level.

Most of the above are capable of being addressed successfully so that it would be possible to rekindle our efforts toward reaching the goal of elimination of leprosy in India at the earliest up to the district level in each district if not up to the block level in each block.

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(Data source for statistical analysis WHO Weekly Epidemiological Records and reports of Central Leprosy Division, Directorate General of Health Services)

