

Evaluation & performance of National Leprosy Eradication Programme

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Abstract

The goal was to evaluate and to know the performance of the National Leprosy Eradication Programme in the Surat district. A retrospective record based study was conducted in the District Leprosy Office of the Surat district. Prevalence rate, new case detection rate, proportion of multibacillary (MB) cases among new cases, proportion of grade II disability among new cases and proportion of child cases among new cases were evaluated. Analysis of records of six years from 2001 to 2006 indicates not much decrease in prevalence rate of Leprosy. Over the years a declining trend in grade II disability among new cases was noted. Case detection rate was decreased from 2001 to 2004 and then again increased by 2006. Multi Bacillary cases shows increase in number among new reported cases of Leprosy. Analysis of data relating to proportion of cases among children showed a declining trend in last six years from 2001.

INTRODUCTION

Leprosy is a disease known anciently. In 1600 BC it was mentioned by Sushruta Samhita as Kusht roga. The disease comes with so many myths and carries grave social stigma and ostracism which compels the patients to hide the disease resulting in manifestation of deformities. A common belief is that leprosy is due to past sins committed by the person. There is also a belief that it is hereditary and incurable. When started it was National Leprosy Control Programme in 1955, but with introduction of Multi Drug Treatment (MDT) it was launched as National Leprosy Eradication Programme in year 1983 with aim of reducing prevalence to less than one per 10,000 population by the year 2000 AD (1). In 1981 prevalence rate of India was 57.6 per 10,000 which was brought down to 1.3(2) (March, 2005) and will fell further up to 0.84 per 10,000 population by 2006(3). In Gujarat, prevalence rate was 21.1 per 10,000 in the year of 1984-85 which was reduced to elimination level (0.95) by 2004(3) and it is now 0.89 cases per 10,000 in January, 2007. This study was conducted for evaluation and progress of National Leprosy Eradication Programme in Surat district of Gujarat state.

MATERIAL AND METHODS

The data of last 6 years (2001 to 2006) was collected from the district leprosy centre and a retrospective analysis was done. Various indicators are included(4) in this study;

prevalence rate per 10,000 population, new case detection rate per 10,000, proportion of multibacillary (MB) cases among new cases, percentage of grade II disability among new cases, percentage of child cases among new cases. In disability grade II it includes, visible deformity or damage present in hands and feet and in case of eyes it is severe visual impairment (vision worse than 6/60, inability to count fingers at 6 meters), lagophthalmos, iridocyclitis and corneal opacities(5). Cases reported during Modified Leprosy Elimination Campaign, School Health check up Programme and Block Leprosy Awareness Campaign (BLAC) was also included.

RESULTS

Out of 25 districts in Gujarat state, 16 districts are low endemic districts (prevalence rate of <1%), 2 districts have prevalence rate between 1-2 including Surat district having prevalence rate of 1.73, 6 districts have prevalence rate between 2 to 3 & only Dangs district have prevalence of 4.17 per 10,000 population. No district has prevalence of more than 5 per 10,000 populations.

Figure 1

Table 1: Prevalence rate and new case detection rate of Leprosy in Surat district from 2001 to 2006

Year	Mid Year Population	New cases detected during the year	New case detection rate per 10,000	Prevalence rate per 10,000
2001	50,91,988	1716	3.37	1.83
2002	51,00,609	1673	3.28	1.94
2003	52,10,191	1636	3.14	1.73
2004	54,16,184	937	1.73	0.84
2005	55,21,126	1176	2.13	1.42
2006	56,36,684	1451	2.57	1.44

The prevalence rate of 1.83 per 10,000 population in the year 2001 in Surat district, decreased slightly to 1.44 per 10,000 population by 2006, which shows no major decrease except in 2004 (0.84%). Similarly, new case detection rate was 3.37 per 10,000 population decreased to 1.73 per 10,000 population by 2004 but thereafter again it showed increase to 2.57 per 10,000 population in the year 2006 (Table 1). Cases reported during Block Leprosy Awareness Campaign (BLAC) were also included in this.

Figure 2

Table 2: Male female proportion and child cases among new cases of Leprosy in Surat district from 2001 to 2006

Year	New cases detected during the year	Male Female proportion	Child cases among new cases	
			No.	%
2001	1716	54-46	368	21.5
2002	1673	58-42	266	15.9
2003	1636	60-40	235	14.4
2004	937	60-40	113	12.1
2005	1176	62-38	161	13.7
2006	1451	58-42	187	12.8

In the year 2001, male female proportion was 54:46 which was increased to 62:38 in 2005 and again changed to 58-42 in the year 2006 (Table 2). Child cases among new cases of leprosy decreased from 21.5% in the year 2001 to 12.8% by the year 2006 (Table 2). This also includes cases reported during school health check up programme.

Figure 3

Table 3: Percentage of Multi Bacillary (MB) cases and cases with grade II disability among new cases of Leprosy in Surat district from 2001 to 2006

Year	New cases detected during the year	Multi Bacillary cases among new cases		Cases with grade II disability among new cases	
		No.	%	No.	%
2001	1716	530	30.9	45	2.68
2002	1673	550	32.9	22	1.32
2003	1636	706	43.2	13	0.85
2004	937	388	41.5	4	0.53
2005	1176	572	48.7	26	2.29
2006	1451	727	50.1	20	1.38

Multi Bacillary cases among new leprosy cases increased from 30.9% in the year 2001 to 50.1% in the year of 2006 (Table 3). Cases with grade II disability decreased from 2.68% in 2001 to 0.53% in 2004 but then increased (2.29%) in 2005 and again decreased to 1.38% in 2006 (Table 3).

DISCUSSION

This study shows that Surat district not have much declining prevalence rate of from 2001 to 2006. This is because Surat district have large number of migrants coming from Uttar Pradesh, Bihar and Orissa states, which are contributing large number of leprosy cases to India. Surat district is one of the highly endemic districts of Gujarat state. So, this is not in accordance with decline in prevalence rate of Gujarat from 1.4 per 10,000 populations in 2001 to 0.84 per 10,000 populations in year 2006(2).

New case detection rate shows decrease from the year 2001 to 2004 but again increase by the year 2006. It is because of the implementation of second, third and fourth round of Modified Leprosy Elimination Campaign (MLEC) in the year 2001 to 2004. But after that it was increased again because of implementation of Block Leprosy Awareness Campaign (BLAC) in the year 2005-06. Decline in NCDR may be due to increase coverage of MB cases with MDT which ultimately reduces disease load in the community, which was also observation of Mahajan et al (6).

Proportion of children among new cases shows a declining trend from 2001 (21.5%) to 2006 (12.8%). Sardana K (7) also reported lower proportion of children for leprosy. Proportion of Multi Bacillary cases among newly detected

cases shows increase from 30.9% in 2001 to 50.1% in 2006. As prevalence rate decreases, Pauci Bacillary cases also decreases and so, Multi Bacillary cases are on increase which suggests decreasing trend of leprosy in the community.

Cases with grade II disability shown decline from 2.68% in 2001 to 0.53% in 2004 and then again rise to 1.38% in 2006. It might be because of implementation of three rounds of MLEC from 2000 to 2004⁽⁸⁾. But later on, increase in disability cases is because of implementation of Block Leprosy Awareness Campaign in 2005-06. It also shows increase in awareness of community regarding Leprosy. Reduced deformity rate was also reported by Halder et al ⁽⁹⁾.

CONCLUSION

It is concluded that NLEP in Surat district is still not making a favorable impact at state and national level in India on the problem of leprosy. The goal of National health Policy, 2002 to eliminate Leprosy by 2005, is still a dream to achieve for Surat district even though it is achieved by Gujarat state.

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