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Original Research Article

Delhi's Performance During the 12th Plan for NLEP

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ABSTRACT

The aim of the study is to find out how Delhi fared during the 12th plan for National Leprosy Eradication Programme (NLEP 2012-13 to 2016-17), in relation to the target fixed in the plan, and to see if there was any change in the epidemiological profile of leprosy during this period. The study material consisted of data taken from Leprosy control cell, Directorate of Health Services, Government of Delhi, which received monthly leprosy reports on a "uniform monthly leprosy report form" from different health care providers in Delhi. A retrospective analyses of data pertaining to 2011-12 (the year preceding the 12th plan for NLEP) and 2016-17 (the year when the 12th plan ends) was undertaken. A significant decrease in the PR and ANCDR from 1.7% and 13.51% respectively in 2011-12 to 0.95% and 9.5% respectively in 2016-17 was recorded. There was a significant increase in the percentage of cure rate of MB, PB and Total cases from 65.98%, 75.65%, and 69.45% respectively in 2011-12 to 81.14 %, 91.42 %, and 83.17 % respectively in 2016-17. G2D (grade 2) deformity cases, however, was quite high (14.07% in 2016-17), and is a cause for concern. Detecting and effectively treating leprosy in high migrant population which constituted 47.85 % to 53.91 % of newly detected cases is a daunting and challenging task in Delhi

Key words: Leprosy, NLEP, PR, ANCDR, Delhi leprosy

INTRODUCTION

The leprosy prevalence has come down to a level of elimination i.e. less than one case per 10,000 population at the national level by December 2005. Delhi achieved elimination in 2008. However, new cases continue to be detected and the disease is prevalent with moderate endemicity in about 15% of the districts in India. [1] Among the later 15% districts were the 'South district' and the 'New Delhi district' of Delhi, which were labeled as high endemic districts, based on case detection rate of >10/100,000 population in 2010-11. The 12th plan for NLEP which extended from 2012-13 to 2016-17 had fixed targets (Table 1) for the nation to be achieved by the end of the programme. The aim of this study is to find out how Delhi fared during the 12th plan for NLEP (2012-13 to 2016-17) in relation to the target fixed in the plan, and to see if there was any change in the epidemiological profile of leprosy during this period.

MATERIALS AND METHODS

The study material consisted of data taken from Leprosy control cell, Directorate of Health Services, Government of Delhi, which received monthly leprosy, reports on a "uniform monthly leprosy report form" from different health institutions, hospitals and all other health care providers in Delhi. These reports consisted of number of leprosy cases under treatment, new cases detected in the month, types of cases, cases

with deformities, age, sex, residence, occupation etc as per NLEP protocol. The classification of types of leprosy and grading of leprosy in all these reports were based on the WHO classification of leprosy and WHO grading of leprosy. [2] A retrospective analyses of data pertaining to 2011-12 (the year preceding the 12th plan for NLEP) and 2016-17 (the year when the 12th plan ends) was undertaken to find out the changes in the epidemiological profile of leprosy during these 5 year plan (from 2012-13 to 2016-17).

RESULTS

The important clinical leprosy parameters of Delhi in 2011-12 and 2016-17 are mentioned in the Table2. The treatment completion rate (cure rate) of PB, MB and Total patients of Delhi are shown in the Bar chart. In the year (2011-12) preceding the duration of 12th plan for NLEP (2012-13 to 2016-17), Delhi recorded a total of 2376 cases of leprosy, giving a prevalence (PR) of 1.70. The number of new cases of leprosy detected in the year 2011-12 was 2307, giving an annual new case detection rate (ANDR) of 13.5. The number of female cases, child cases, multibacillary (MB) cases, cases with G2D deformities amongst new cases were 509 (22.06%), 145 (6.28%), 1572 (68.14%) and 227 (9.83%) respectively (Table 2). Out of the total 2307 new cases, 1104 (47.85%) were from outside Delhi. In the year 2011-12 a cure rate of 65.98%, 75.65%, and 69.45% were recorded for MB cases, PB cases and Total case respectively.

In the year 2016-17 which coincided with the end of 12th plan for NLEP (2012-13 TO 2016-17) a total number of 1780 cases of leprosy were recorded, giving a prevalence (PR) of 0.95. The number of new cases of leprosy detected in the year 2016-17 was 1812, giving an annual new case detection rate (ANDR) of 9.5 %. The number of female cases, child cases, multibacillary (MB) cases, cases with G2D deformities amongst new cases were 478 (26.38%), 72 (3.97 %), 1442 (79.58 %) and 255 (14.07 %) respectively (Table 2). Out of the total 1812 new cases 977 (53.91 %) were from outside Delhi. In the year 2016-17, a cure rate of 81.14 %, 91.42 %, and 83.17 % were recorded for MB cases, PB cases and Total case respectively.

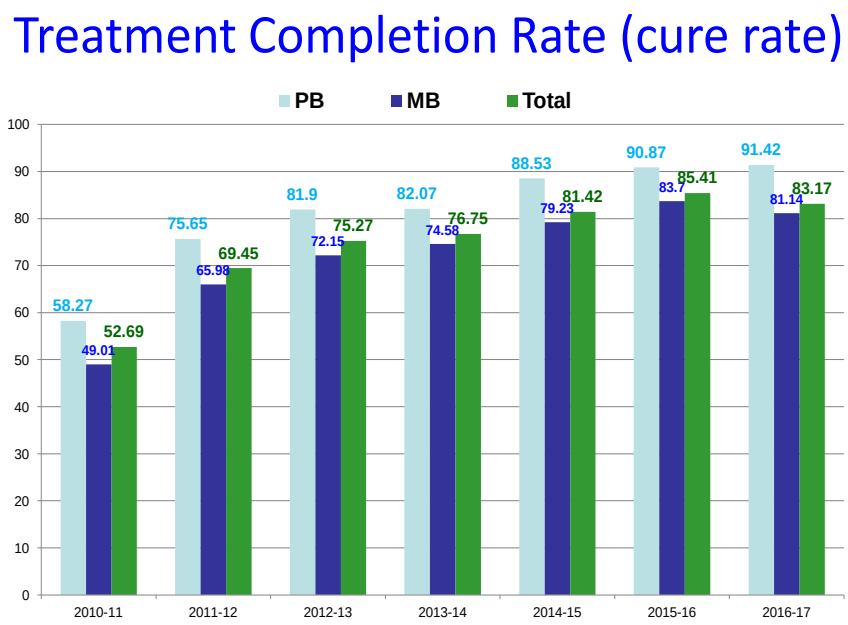
Table1: National targets fixed in 12th NLEP

Indicators	Baseline (2011-12)	Targets (by March 2017)
Prevalence Rate (PR) < 1/10,000	543 Districts (84.6%)	642 Districts (100%)
Annual New Case Detection Rate (ANCDR) <10/100,000 population	445 Districts (69.3%)	642 Districts (100%)
Cure rate Multi Bacillary Leprosy cases (MB)	90.56%	>95%
Cure rate Pauci Bacillary Leprosy Cases (PB)	95.28%	>97%
Gr.II disability rate in percentage of New cases	3.04%*	35% reduction 1.98%
Stigma reduction	Percentage reported (NSS 2010-11)**	50% Reduction over the percentage reported by NSS

* Gr-II disability rate among new cases per million population to be reduced by 35% i.e. from 3 (2011-12) to 2 per million pop. by end of the 12th Plan.
** Based on the National Sample Survey (NSS) report, 2010-11.

Table 2: Epidemiological profile of leprosy patients in Delhi in 2011-12 & 2016-17 (before and at the end of the 12th NLEP)

Leprosy profile	2011-12	2016-17
Total case recorded and prevalence rate	2376 (1.70)	1780 (0.95)
New case detected & ANCDR	2307 (13.5%)	1812 (9.5%)
Female cases with percentage	509 (22.06%)	478 (26.38%)
Child cases with percentage	145 (6.28%)	72 (3.97%)
MB cases with percentage	1572 (68.14%)	1442 (79.58%)
G2D (Gr II new disability cases with percentage)	227 (9.83%)	255 (14.07%)
Cure rate MB	65.98%	81.14%
Cure rate PB	75.65%	91.42%
Cure rate (Total patients)	69.45%	83.17%
Population of Delhi	17074897	18778254



DISCUSSION

A decrease in the prevalence rate (PR) from 1.7% in 2011-12 to 0.95% in 2016-17 has been recorded in Delhi. The ANCDR was also decreased from 13.51% in 2011-12 to 9.5% in 2016-17. This is a significant achievement when compared with the national level PR and ANCDR, which remain almost static since 2006-07, even after attaining elimination in 2005. However the 12th NLEP target of bringing down the PR to < 1/10,000 in all districts of India by March 20017 could not be achieved by Delhi. Among the Delhi districts two districts, 'South district' and 'New Delhi' had a PR 0f > 1case / 10000 population in 2011-2012 which had came down to one district (Shahdra district) in 2016-17. Shahdra was not a district in 2011-12, but later on when these districts were reorganized Shahdra came into being. Three other states / union territories namely Lakshadweep, Chandigarh and Orissa who have achieved elimination earlier also showed an increase in PR >1/ 10000 population. [3] The increase in new cases and prevalence in these states / union territories was attributed by NLEP to special activity plan (SAP -12) with house to house survey as the main strategy along with IEC and capacity building of the workers and volunteers. Gujarat also recorded a slight increase in the prevalence from 0.96 / 10000 in 2012-13 to 0.98 / 10000 in 2015-16 and this has also been attributed to active search campaign for detecting backlog cases and the migrant cases registered in Gujarat. [4] In comparison to these states / union territories of Orissa, Gujarat, Lakshadweep and Chandigarh, as well as to the overall national picture, Delhi fared much better.

The Operational guidelines on "Global Strategy for further reducing the leprosy burden and sustaining Leprosy control activities (2006-2010)" had mentioned that "The proportion of patients who complete their treatment on time as a proxy for cure rate" is one of the main indicators for use for monitoring the epidemiological trends of leprosy. The proportion of new patients who complete their treatment on time is an indication of how well the leprosy patients are being served by the health services.

In Delhi there is significant increase in the proportion of patients who complete their treatment on time from 2011-12 to 2016-17. The treatment completion rate of of 65.98%, 75.65%, and 69.45% were recorded for MB cases, PB cases and Total case respectively in 2011-12. This went up to 81.14 %, 91.42 %, and 83.17 % for MB

cases, PB cases and Total case respectively in 2016-17 (Table 2). But they are still short of the cure rate of >95% and >97% for MB and PB cases respectively fixed in the 12th Nlep plan (Table 1.). Furthermore the Delhi cure rates of Total patients of 83.17% recorded in 2016-17 were still less than the national cure rate of 94.33% recorded in 2015-16.

The prevalence of G2D deformity is one of the most widely used epidemiological indicators to measure the progress of the NLEP, as it is visible and can be reliably measured. It indicates late detection of cases. As per the WHO DOCUMNT (206-2020), the proportion of G2D cases among newly diagnosed patients and the G2D rate in a population indicate the efficiency of early detection of leprosy. They also indicate indirectly the awareness levels of early signs of leprosy, access to leprosy services and skills of health-care staff in diagnosing leprosy.

Delhi has failed to achieve reduction in G2D disability. The percentage of G2D disability amongst new cases detected has been increased from 9.83 (2011 - 2012) to 14.07% (2016 - 2017), which is way above the 1.98% fixed in the NLEP 12th plan. It indicates that the cases are being detected late in the community and there may be several cases which are lying undetected or hidden. The main reason for increase in the G2D cases in Delhi has been attributed to the migrant population. The migrant population constituted 53.91 % of newly detected cases in Delhi in 2016-17, and Delhi Health Services has no control over these cases.

The overall picture of Leprosy in Delhi is good, but new cases continue to be detected indicating active transmission. The static rate of PR and ANCDR at the national level from 2007 till 2017, even after attaining elimination in 2005 also indicate active transmission. Various factors have been cited for this active transmission and these include long incubation period of the disease, follow-up of drug trials for short duration, the method of determination of bacterial killing by antileprosy drugs, fixed dose therapy under NLEP for MB patients, quick integration of the NLEP with the general health services, noncompliance to MDT, and poor Health and hygiene. [5,6] Thus, continuous occurrence of new cases in the population is a cause for worry. To reduce annual new case detection rate, the NLEP has recently launched an active house-to-house survey in the form of Leprosy Case Detection Campaign, Contact Tracing, Stigma Reduction and augmented Community Awareness Programs, which is a welcome step.

CONCLUSION

During the 12th plan for NLEP(2012-13 to 2016-17), Delhi has recorded significant achievement in terms of decrease in PR, ANCDR, increase in cure rate for MB cases, PB cases, despite over 50% of leprosy cases belonging to the migrant population. A high percentage of G2D deformity is a cause of concern and needs augmented anti leprosy activity including, targeting case detection activities in high-endemic pockets, focusing on screening of contacts, augmented community awareness programs and stigma reduction

REFERENCES

1. Central Leprosy Divison, Directorate General of Health Services, Ministry of Health & Family Welfare, Govt. of India (2013). Programme Implementation Plan (PIP) for 12th Plan Period (2012-13 to 2016-17). Can be accessed at http://nlep.nic.in/pdf/Final%20PIP,on%203%20May%202013.pdf. OR
2. World Health Organization (2009). Enhanced Global Strategy for Further Reducing the Disease Burden Due to *Leprosy. Operational guidelines.*
3. *NLEP (2016).* Revised Operational Guidelines for Leprosy Case Detection Campaign, August 2016.
4. Rathod SP and Mistry AS. Current Scenario and Challenges of Urban Leprosy in a Tertiary Care Regional

Center in Western India - A5 Year Observational Retrospective Study. Indian J Lepr 2017;89: 1-7.
5. Sengupta U. Elimination of leprosy in India: An analysis. Indian J Dermatol Venereol Leprol 2018;84:131-6.
6. Joshi PL. Epidemiology of leprosy. In: Kar HK, Kumar B, editors. IAL Textbook of Leprosy. 2nd ed. New Delhi: Jaypee Brothers; 2016. p. 33-44.

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