Global Partnership for Zero Leprosy

Zero Leprosy Best Practices

Best Practice: *Early Case Detection through Combined Approaches (Contact Survey, Focal Survey, and Special Search) in Munger District of Bihar State, India*

Subthemes
- Early Detection and Prompt Treatment
  - Screening activities

Target Audience(s)
- Policy leaders
- Program managers
- Health staff
- Donors
- Other partners such as NTD NGOs

Contributors
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Key Messages
This combined approach provides an efficient, active case-detection method that can identify leprosy cases early and therefore reduce the risk for people affected by leprosy to develop disability later in life. This approach is particularly useful in areas where National Leprosy Eradication Programme (NLEP) Annual New Case Detection Rates (ANCDR) are stagnant or show a downward trend.

Key Informant / Date Submitted
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August 2019

Description of the Best Practice

Introduction
Despite an apparent stagnation in leprosy ANCDR and prevalence rates (PR) in India, the number of child cases and of grade 2 disability among new cases remain high. This suggests continued transmission of leprosy as well as late detection of cases and shows that current ANCDR and PR trends do not reflect the real situation of leprosy in India.

The lack of active case finding has been pointed out as a potential reason for this contradiction. In fact, ANCDR is sensitive to case-finding methods and quality implementation. Furthermore, the evidence

Best Practice: *Early Case Detection through Combined Approaches (Contact Survey, Focal Survey, and Special Search) in Munger District of Bihar State, India*

1

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suggests that active case detection may be necessary to ensure early detection and equal access to leprosy services.

Acknowledging the importance of active case finding, the NLEP launched Leprosy Case Detection Campaigns (LCDC) in highly endemic districts in India. The LCDC guidelines stipulate that "*No house should be left unvisited*." This means that, in theory, the LCDC design should capture all cases of leprosy in the communities. Yet, alternative sources of data seem to indicate that it fails to do so.

LEPRA Society's approach, described here, provides an efficient, active case-detection method that can identify leprosy cases early and therefore reduce the risks for people to develop disability later in life.

Objectives and Methodology

The survey combined three types of active case-finding methods: Contact Survey, Focal Survey, and Special Search. A contact of a leprosy patient is defined as any person who has a history of contact with a known leprosy patient. For a Contact Survey, once a person in a family is diagnosed with leprosy, consecutive physical examinations of household members should be done once every 6 months for a duration of 5 years for multibacillary (MB) leprosy patients or 2 years for paucibacillary (PB) leprosy patients. A Focal Survey goes beyond the household by examining 20–25 households or houses in and around the neighborhood of contacts of all child and MB cases. A Special Search involves targeting a specific group for examination.

For this survey, Scheduled Castes and Scheduled Tribes (SC/ST)—various groups officially designated in the Indian Constitution as historically disadvantaged indigenous people—were targeted for the Special Search, which is not part of NLEP's LCDC campaigns.

Implementation of Practice

Three paramedical workers were recruited for this intervention and trained in leprosy case detection, with a focus on early case detection through Contact and Focal Surveys as well as Special Searches. This team was supported by LEPRA Society's physio-technician and supervisor in Bihar. In consultation with the District Leprosy Office and using the master register, the team collected details of 1,414 treated cases (released from treatment in the last 5 years) located in 323 villages and a few municipal wards of the district. All 1,414 (718 MB and 696 PB) index cases were included in the planned Contact Survey. For the Focal Survey, all MB cases (636 adults and 82 children) and 131 child PB cases were included. Over the course of 6 months, the team visited the families of 1,198 people who had been diagnosed and treated for leprosy. In total, 5,091 people were examined through Contact Surveys and 54,129 people were examined through Focal Surveys. In each village or municipal ward, as the team proceeded in

Best Practice: *Early Case Detection through Combined Approaches (Contact Survey, Focal Survey, and Special Search) in Munger District of Bihar State, India*

conducting Contact and Focal Surveys, they also conducted Special Searches in the areas of the village where people from SC/ST live (usually in the southern part of the village). A total of 26,340 people were examined through Special Searches.

The activities were implemented over a 6-month period in the Munger District of Bihar exclusively. This District consists of nine blocks for a total population of 1,359,054 people; 72% of the population is rural, and the female literacy rate is 66%. The government health facilities include one district and one sub-divisional hospital, nine primary health centers, and 225 health sub-centers.

The key implementers are LEPRA Society, District Health Society Munger, and members of the forum of people affected by leprosy in Bihar. The funding was provided by Lepra UK and totaled 400,000 Indian Rupees (5,650 US Dollars), which included salaries and transportations.

Results—Outputs and Outcomes
A total of 321 new leprosy cases were found through these approaches and have been considered for analysis: 126 (40%) were detected by the Special Searches, 98 (30%) by Contact Surveys, and 97 (30%) by Focal Surveys. Of the 321 new cases, 169 (53%) were male and 152 (47%) female. While male cases were mostly detected by the Special Searches (43%), female cases were similarly distributed between the Contact Surveys and the Special Searches (36% and 36%, respectively). About 119 child cases (defined as below 15 years old) were detected, representing 37% of the total number of new cases. Children were mostly detected by the Special Searches (44%). The distribution of cases was heterogeneous; out of the 321 cases, 221 (70%) belong to SC/ST, among which 95 (43%) were detected by the Special Searches.

Registration of the new cases was done by the District Health Society Munger. Monthly basis data were shared with government officials, and 10% crosscheck (survey/new cases) was conducted by a special team consisting of LEPRA and government officials.

Lessons Learned
The survey design and methodology worked well, as planned. The experienced and dedicated staff carried out the approaches very efficiently. Support from the community was high. The District Health Officer also cooperated with the team, and corrections were made as needed.

This combined method demonstrates that disadvantaged people who live in adverse conditions do not come forward for treatment despite being dramatically affected by leprosy. Joint monitoring, timing of surveys, and information, education, and communication (IEC) awareness campaigns helped in new case detection.

Best Practice: *Early Case Detection through Combined Approaches (Contact Survey, Focal Survey, and Special Search) in Munger District of Bihar State, India*

Replicability and Scalability

LEPRA Society is replicating this practice in one district (Samastipur) in 2019; NLEP Bihar has accepted this model, and the fifth LCDC has been done in Mahadalt Tola. Also, Damien Foundation conducted a similar exercise in one district of Bihar, and the results were very similar. In that project, 27% of child cases were found in tribal communities. Some parallel in the health-seeking behavior of children and of their mothers could be drawn here, however, additional qualitative research is needed to explore this further. The Government of Bihar has implemented a LCDC in special populations (2018), and more than 2000 new cases have been registered for treatment.

The low levels of disability and complications found in the project indicate that the LEPRA Society's model may provide an efficient active-detection method to identify leprosy cases early and therefore to prevent people from developing disability later in life. Given the long incubation period of leprosy, going back 5 years in the screening of contacts and extended contacts is important.

Strong monitoring and supervision at all levels along with joint (Government + ILEP + WHO + others) partner visits will bring efficiency and effectiveness.

Efficient active case-detection campaigns are essential in sustaining and/or achieving complete elimination.

Conclusions

Across the globe, many leprosy cases in affected communities remain undetected. Investing in active case-detection campaigns is essential for finding these hidden cases. Early case detection through combined approaches (Contact Surveys, Focal Surveys, and Special Searches) is useful in finding these hidden cases, particularly among vulnerable groups such as women, children, and scheduled castes and tribes.

Further Readings

Published results: Mangeard-Lourme J, Singh A, Singh RK, Parasa J, De Arquer GR. Enhanced active case-finding, identifying leprosy cases missed by recent detection campaigns in Munger District, Bihar, India. Lepr Rev 2017;88:452-462. https://www.leprosy-information.org/resource/enhanced-active-case-finding-identifying-leprosy-cases-missed-recent-detection-campaigns?aresult=0

Best Practice: *Early Case Detection through Combined Approaches (Contact Survey, Focal Survey, and Special Search) in Munger District of Bihar State, India*

4