

## Letter to Editor

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## A step towards zero leprosy: Active case finding through community–based approach

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Leprosy with multidrug therapy and treatment in the early stages can prevent disability, but it still represents a significant health problem, mainly in vulnerable populations[1]. However, if left untreated, leprosy can cause progressive and permanent damage to the skin, nerves, limbs, and eyes. With the constant efforts of the National Leprosy Elimination Programme in India, the implementation of multidrug therapy has lowered the prevalence rate to 0.66/10 000 in 2016[1]. As a result of the COVID-19 pandemic, leprosy treatment has been further hampered due to underdiagnosis, limited access to essential healthcare services, increased stigma and increased susceptibility of leprosy patients to COVID-19 infection, especially in the populations socially and economically vulnerable in low-income countries[2].

The burden of the disease continues, and the targets of the national programs swung in the waves of COVID-19 from the year 2020. India stood a long way behind due to the challenges raised by the global pandemic, impacting all spheres of human lives and decelerating all developmental activities, including striving and aspirational Sustainable Development Goals 2030. Therefore, routine services provided by the National Leprosy Eradication Program have also been adversely affected as many resources and personnel have been diverted from normal activities towards managing the COVID-19 pandemic.

According to the World Health Organization, the registered prevalence, new cases and child cases decreased steadily from 2011–2019. Still, at the end of 2020, these cases were much lower than in previous years, with a 27.7% reduction in registered prevalence, a 37.1% reduction in new cases and a decrease in child cases was higher (25.8%) as compared with 2019[3]. This is not due to decreased transmission, but cases remaining undetected due to COVID-19-related disruptions. The Southeast Asia region reports

the highest prevalence of leprosy cases among all areas in the world. India holds the highest number of cases, followed by Brazil and Indonesia.

In India, a significant decline of about 43% in new case detection was reported in 2020–2021 and 34% in 2021–2022 compared to the pre-COVID-19 year 2019–2020 (Figure 1)[4]. Decreased leprosy diagnosis may result in a hidden prevalence and continued transmission within the endemic community. Late diagnosis causes an increase in grade 2 disabilities with severe and irreversible physical disabilities. Due to this, the extent of leprosy-stigma, and psychosocial and physical hardships tolerated by the leprosy-affected and their families are forecasted to be deteriorated soon. The COVID-19 pandemic has posed significant challenges to the National Leprosy Eradication Program (NLEP) activities, (Leprosy Case Detection Campaign, Focused Leprosy Campaign, Special plan for hard to reach areas, Sparsh Leprosy Awareness Campaign: SAPNA *etc.*) for controlling the disease and early case detection of leprosy cases in the community. Due to the diversion of resources to COVID-19 activities and to overcome these challenges, the NLEP has taken several steps in the last few years, including implementing telemedicine services, home-based care for patients, and using digital technology for case detection and reporting. The government

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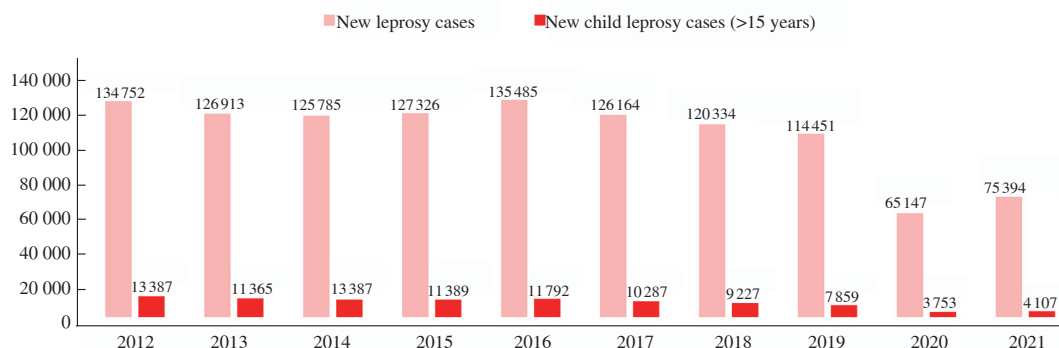
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**Figure 1.** New cases of leprosy and child cases detected in India (2012-2021)[4].

of India has launched National Strategic Plan and Roadmap for Leprosy 2023-2027 to achieve zero transmission of leprosy by 2027. It focuses on awareness of zero stigmas & discrimination, promotion of early case detection, prevention of disease transmission by prophylaxis and rolls out of a web-based information portal for reporting leprosy cases.

Community participation and implementation of community-based interventions are vital strategies for leprosy elimination. The community health workers play a key role in achieving these strategies. Here we tried to focus on some essential recommendations for improving early case detection and treatment at the community level.

The Mid-Level Health care Providers (MLHPs)/Community Health Officers placed in the Health and Wellness Centre (first point of contact with the health system) and Accredited Social Health Activists (ASHA), who work as an interface between the community and the public health system, should be provided with additional training on how to identify early signs and symptoms of leprosy. The Community Based Assessment Checklist (CBAC) in the Comprehensive Primary Health Care Programme of Ayushman Bharat is used for population enumeration and creating individual health records[5]. It was one of the essential tools for leprosy screening and early detection of leprosy in communities and for referring suspected cases to the health facility for further diagnosis and treatment.

NIKUSHTH is a web-based reporting system for leprosy launched by the NLEP to ensure uniformity in the information on registered leprosy cases. The system will help track all activities implemented in the program, prevent reporting of previously diagnosed patients, and assist in monitoring migrant issues for a more accurate estimation of the incidence and prevalence of the disease. Secondary and Tertiary health centres can use telemedicine to conduct virtual

consultations with patients and regular training to guide MLHPs and ASHAs in early identifying and referring suspected cases, which will help to strengthen the existing ASHA based Surveillance for Leprosy Suspect.

Once the patient diagnosed with leprosy, adherence with multidrug therapy, prevention & management for lepra reaction & neuritis, and ulcer care are the priority issues in the management & prevention of disability in leprosy. The Ayushman Bharat's continuum of care approach helps to ensure referral to higher centres and reverse referral to Health and Wellness centres[5]. It is another essential tool in leprosy management at the community level. To achieve zero leprosy, continuous training and support to community health workers (MLHPs and ASHAs) and attention should be given to vulnerable populations, such as women, children, immigrants, refugees, and the elderly. The epidemiological triad comprising the agent, host, and environment should be considered, along with implementing the "test, treat, and track" strategy. Emphasis should be given to providing people-centred prevention and care services and reinforcing community, youth, and civil society involvement. Priority should be given to creating a supportive environment for individuals affected by leprosy and maintaining leprosy-related healthcare services in endemic regions. The Three Zeros of Leprosy (zero transmission, zero disability and zero stigmas and discrimination) are interrelated, so early identification of leprosy is an emergent need to diagnose and prevent life-prolonged impairments and stop ongoing transmission.

### Conflict of interest statement

The authors declare no conflict of interest.

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## Authors' contributions

Conceptualisation: SR; methodology: SR, SA, HP, formal analysis and investigation: SR, SA; original draft preparation: SR, HP; review and editing: SR, SA, HP.

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