

## LETTER TO THE EDITOR

## Hansen's disease case detection in Brazil: a backlog of undiagnosed cases due to COVID-19 pandemic

### Editor

Hansen's disease is endemic to Brazil, with 28 000 new cases diagnosed each year over the past 5 years.<sup>1</sup> Brazil is also one of the countries most impacted by the COVID-19 pandemic, recording 650 000 COVID-related deaths by February 2022. Both diseases disproportionately affect the most socially vulnerable and socioeconomically deprived people in Brazilian society.<sup>2,3</sup> The state of Espírito Santo in the southeast of Brazil has high Hansen's disease endemicity, with a prevalence in 2019 of 1.11 cases per 10 000 inhabitants and, that same year, a new case detection rate of 12.4 cases per 100 000 inhabitants, including 3.8 cases per 100 000 children under 15 years old.<sup>1</sup>

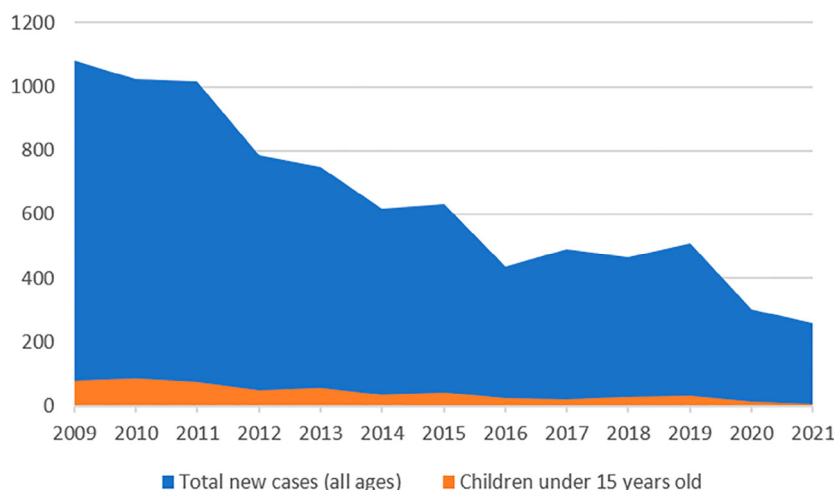
Social distancing, re-prioritization of services and disruption to health systems caused by the pandemic have had a major impact on Hansen's disease new case detection rates in Brazil, which fell by 40% in 2020 compared with the average over the previous 5 years.<sup>4</sup> Missed diagnoses of Hansen's disease have detrimental public health effects in perpetuating transmission, particularly from multi-bacillary cases within households and communities,<sup>5</sup> whilst diagnostic delay amplifies the burden of Hansen's disease for affected persons and public health systems because of the increased risk of lifelong impairments and disabilities.<sup>6</sup>

Data released recently by the Brazilian Ministry of Health from the national surveillance system for notifiable diseases – SINAN (Sistema de Informação de Agravos de Notificação) – show that the impact of COVID-19 on the new case detection rate in our state has continued into 2021, with the average rate for 2020/2021 (6.9/10 000) being roughly half that of the preceding 3 years (12.0/10 000) (Fig. 1) and the rate in children under 15 years old falling from 3.1/100 000 in 2017–2019 to 1.1/100 000 in 2020/2021.

The pandemic has therefore created a backlog of undiagnosed Hansen's disease cases and a wave of delayed treatment initiation in Espírito Santo and across Brazil, equivalent to an entire year's worth of cases (approximately 400 in our state and 28 000 nationally). Similar impacts have been recognized for different diseases in most other countries.<sup>7</sup> In Brazil, state health authorities must begin to take action to restore Hansen's disease services to prepandemic levels, and to devise and implement plans to catch up with case-finding, diagnosis and treatment. A coherent and effective catch-up plan for Hansen's disease should include the following four components:

- 1 Case-finding and contact tracing campaigns focused on localities where new case detection rates are known to be higher (Hansen's disease hot spots),<sup>8</sup> preceded by awareness-raising activities at community level (Fig. 2).
- 2 Evaluation of the use of rapid diagnostic tests to facilitate diagnosis – lateral flow antibody assays have demonstrated good accuracy in detecting multibacillary cases which, in Espírito Santo, represent approximately 60% of new cases.<sup>9</sup>

**Figure 1** Trend in detection of new Hansen's disease cases in Espírito Santo state, Brazil, 2009–2021 (data source: Secretaria de Vigilância em Saúde do Ministério da Saúde (SVS/MS), Sistema de Informação em Saúde e-SUS Vigilância em Saúde (e-SUS/VS)).





**Figure 2** Medical students raising awareness of Hansen's disease at a public event organized by informa Hanseníase (infoHansen), Hospital Universitário Cassiano Antônio Moraes, Vitória (Espírito Santo, Brazil), February 2022 (image source: PDD).

- 3 Training of physicians and other healthcare professionals to plug the 'expertise gap' in diagnosing and managing Hansen's disease and Hansen's disease reactions. This gap has been caused in part by centralization of Hansen's disease programmes, leading to loss of knowledge and diagnostic skills at a local level.
- 4 Modelling to quantify the potential impact of the pandemic on Hansen's disease case detection, as a means of estimating the backlog and monitoring the effectiveness of catch-up activities.

The impact of the COVID-19 pandemic on Hansen's disease in Brazil was compounded by a shortfall in the supply of multidrug therapy, which is distributed centrally to all endemic countries via the World Health Organisation. Catching up after COVID-19 will require a concerted effort. We propose that each endemic country establishes a taskforce with the necessary skills and expertise, with representation from civil society organizations for persons affected by Hansen's disease, and redoubles efforts to reduce the stigma and discrimination that impede its elimination.<sup>10</sup>

### Conflict of interest




P Deps, S Collin and VLG de Andrade have no conflict of interest to declare.

### Funding source

This study received no specific funding.

### Data availability statement

All data referred to in this letter are freely and publicly available from <https://indicadoreshanseniaze.aids.gov.br/>.

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DOI: 10.1111/jdv.18307