

We agree with Sticchi and colleagues that many questions are still pending and encourage them to develop prospective vaccine studies in patients with haematological diseases.

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## HIV crisis in Sindh, Pakistan: the tip of the iceberg

Pakistan has had a 45% overall increase in HIV cases from 2010 to 2017, with an annual incidence of 20 000.<sup>1</sup> According to Pakistan's National AIDS Control Programme (NACP), nearly 165 000 people are living with HIV nationwide, of whom only 24 331 (15%) are aware of their condition. In 2019, so far only 17 149 patients registered with NACP have received antiretroviral treatment (ART).<sup>2</sup> Poor awareness and illiteracy in rural areas of the country are likely to have adversely affected the AIDS control programme.

In April, 2019, an HIV outbreak was reported in the town of Ratodero in Larkana district, Sindh province, Pakistan. The outbreak was highlighted when 15 children with persistent fever were sent for HIV testing at a government-contracted facility and all were found to be infected. Blood reports were confirmed by another laboratory after referral from the Sindh HIV/AIDS Control Programme.<sup>2</sup> These astonishing results panicked the health administration because the chance of perinatal transmission was already ruled out in these children. HIV screening of residents of affected areas revealed more alarming results. 157 HIV-positive cases were identified after screening of more than 4100 people. Among individuals

who tested positive, 30 were adults and 127 were children.<sup>3</sup> The Health Ministry and concerned officials did an inquiry to explore the cause of the outbreak and identified the reusing of contaminated disposable syringes as a possible factor. Syringes had been used multiple times by someone impersonating a doctor.<sup>2</sup>

The Pakistani Government, in collaboration with the UN, has taken some appreciable steps towards HIV prevention, such as ensuring the availability of treatment for patients and aiding specialised HIV investigations, but importantly prevention is also linked to awareness in the general population. National-level awareness campaigns, public speaking regarding risks factors, and frequent screening camps should be organised, particularly in remote areas, to aid early detection of index cases, thereby preventing further epidemics. Also, an urgent expansion of NACP is needed because ART is currently available to only 24 000 patients nationwide through 35 HIV treatment hubs. Only seven HIV treatment centres exist in Sindh province,<sup>4</sup> and all are in major cities, which probably leads to non-compliance since ease of availability of ART is likely to have a key role in adherence. In addition, law enforcement agencies should take strict legal action against individuals who impersonate health-care providers, since their malpractices are thought to be a primary reason behind various HIV epidemics in Pakistan in the past few years.

HIV epidemics like this are not new to Pakistan—a similar outbreak occurred in January, 2019, in Punjab province.<sup>5</sup> This recurrence of rural epidemics within a short period of time should prompt initiatives to prevent such crises in the future.

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For more on NACP see  
<https://www.nacp.gov.pk>

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