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An update on the severe outbreak of HIV in Kot Imrana, Pakistan

Kot Imrana (Kot Momin) is a small village located in the district of Sargodha in Punjab province, Pakistan. During PCR-based screening by The Health Department at District Headquarter Hospital, Sargodha, in January 2019, 669 (13·38%) of the 5000 people who live in the village were found to be HIV-positive. In this journal, Muhammad Zaid and Muhammad Sohail Afzal[1] reported that the prevalence of HIV in the same village in June, 2018, was 1·29%. The HIV epidemic in Kot Imrana, therefore, continues to grow at an alarming rate with a substantially high mortality. Upon interviewing patients, a quack was found to have used the same syringe on multiple patients, and he himself died of AIDS later in 2018, leaving hundreds of patients HIV-positive. Prevalence was found to be higher in women and children. The detailed interviews of patients who visit our laboratory confirmed that more than 96% of HIV-positive patients were unaware of the modes of transmission of HIV and the consequences of this life-threatening virus. The first case of HIV was reported in Kot Imrana around 15 years ago and now it is the most heavily affected region of Pakistan (a country in which more than 110 million people are at risk of infection), largely because it is located in Punjab, the largest and the most densely populated province of the country.

According to AIDS control programme data,[2] 5000 quacks working in Sargodha are transmitting the virus to the community. Additionally, barbers are the other source of HIV transmission because they use contaminated razors and blades. A substantial proportion of patients might have acquired the infection sexually, but they were reluctant in discussing their sexual relationships. According to local resources, the virus has been spread to nearby villages and about 900 HIV carriers are living in Sargodha. Discrimination and stigma associated with HIV/AIDS is another risk factor that makes elimination of HIV a challenge in socially conservative settings, such as Pakistan and other developing and under-developed countries.

Laboratory data from Genome Centre for Molecular Based Diagnostics and Research, Lahore, Pakistan, showed an increased prevalence of HIV in the Mardan region of the Khyber Pakhtunkhwa province. From this trend, we can conclude that Sheikhupura, Lahore, Faisalabad, and more than 50 villages in the vicinity of Sargodha, as well as more than 50 rural and urban areas in the outskirts of Mardan, are potential hotspots of HIV infection in Pakistan.

Scenarios suggest that the overall prevalence of HIV in the general population is underreported in Pakistan. The National AIDS Control Programme of the Government of Pakistan must develop innovative strategies and launch awareness campaigns to control HIV through increased access to screening, treatment, and counselling. This HIV epidemic in Kot Imrana is unprecedented, having expanded from a prevalence of 1·29% to one of 13·38% in just 6 months. Focus on this high transmission area is urgently needed for the proper implementation of evidence-based prevention strategies to control the epidemic and reduce the transmission of virus.

Special thanks to patients who contributed in the study and Genome Centre for sharing their data.
I declare no competing interests.

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Yellow fever: is Asia prepared for an epidemic?

Epidemic arboviral diseases are relentlessly increasing in incidence, fueled by urbanisation, scarcity of effective disease and vector control strategies, and globalisation resulting in disease exportation.[1] This decade, the number of travellers exporting yellow fever virus to non-endemic countries is at a record high.[2] Furthermore, in 2016, for the first time in documented history, confirmed yellow fever virus was exported in travellers from Africa to Asia, where about 2 billion immunologically naive people live in areas inhabited by the *Aedes aegypti* mosquito vector and are at risk for transmission.[3] The case-fatality rate of yellow fever is among the highest of all arboviral diseases, underscoring the threat of a newly emerging epidemic disease problem in Asia.

Why outbreaks of yellow fever have not yet occurred in Asia is unknown. The factors influencing transmission dynamics of yellow fever (eg, vector competence and magnitude and