

## Recent advances in HTLV-1 epidemiology.

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**Background:** A WHO Technical report has recommended ongoing investigation of HTLV-1 surveillance, prevalence and testing strategies (WHO 2021).

**Methods:** Selective review of the literature from 2020-2021 using a PubMed search with the keywords “HTLV-1 epidemiology”. Focus was directed at HTLV-1 epidemiology in pregnant women, in blood donors and new data from specific geographic regions (except Australia in deference to conference hosts).

**Results:** Japan has implemented nationwide surveillance for HTLV-1 among pregnant women and the latest prevalence in pregnant women is 0.1% nationwide and 0.3% in Kyushu (Suzuki Jpn J Infect Dis 2021). The latter compares to 5% HTLV-1 prevalence in Kyushu in 1992, perhaps indicating successful mitigation of HTLV-1. In Brazil, nationwide antenatal testing not been introduced but a recent systematic review yielded a prevalence of 0.3% nationally and 0.6% in the northern region; secular trends were not analyzed (Vieira Sci Rep 2021). A study in São Paulo, Brazil found a 5% prevalence of HTLV-1 among Japanese immigrants with a strong decrease in prevalence from immigrants to their children or grandchildren (Bandeira PLOS Neglect 2021). Global estimates of HTLV-1 prevalence have noted a lack data in China. Recent data from a nationwide survey of blood donors indicates that prevalence is very low in most provinces except for 36 per 100,000 in Fujian province in southeastern China (Chang Retrovirology 2021). For many years, the best estimate of the HTLV-1 seroconversion window period was 51 days based upon early immunoassays (Manns Blood 1991). Surprisingly, a recent study found the window period to be a median of 2.2 months for particle agglutination, enzyme immunoassay or qPCR based upon the inter-donation interval in seroconverting blood donors; however this methodology may not be optimal (Sagara Transfusion 2021).

**Conclusion:** Despite the neglected disease status of HTLV-1, interesting findings continue to be made regarding its epidemiology.

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