

EVALUATING PROGRESS TOWARDS ELIMINATION OF VERTICAL TRANSMISSION OF HIV IN AUSTRALIA

Authors:

Khawar L,¹ Naruka E,¹ King J,¹ Donovan B,¹ Bartlett AW,¹ Nunez C,^{2,3} Morris A,^{2,3} Teutsch S,^{2,3} Elliott EJ,^{2,3} Palasanthiran P,⁴ Costello J,⁵ Kaldor J,¹ Guy R¹, McGregor S¹

¹The Kirby Institute, UNSW Sydney, ²Australian Paediatric Surveillance Unit, Sydney Children's Hospitals Network, Westmead, ³Faculty of Medicine and Health, The University of Sydney, ⁴Department of Immunology and Infectious Diseases, Sydney Children's Hospitals Network, Randwick, ⁵Positive Life, NSW

Background:

We assessed Australia's progress towards the WHO's goal of eliminating vertical transmission of HIV (rate <2%) using the National HIV Registry and Australian Paediatric Surveillance Unit data from 1988-2023.

Methods:

We calculated the vertical transmission rates with respect to the WHO targets over the study period. We examined maternal interventions' effect on children born to women living with HIV (WLHIV) with antenatal HIV diagnosis and complete information on interventions and outcomes. Multivariate logistic regression was performed, and odds ratios (OR) were calculated for interventions' association with transmission (excluding the pre-1994 observations where antenatal ART was not a recommended intervention).

Results:

During 1988-2023, 738 WLHIV gave birth to 1,007 children. The rate of HIV transmission decreased from 47.5% (19/40) in 1988-1991 to 1.7% (2/115) in 2020-2023. In relation to the WHO's elimination target, the transmission rates for the last two years were 8.3% (2/24) in 2022 and 0.0% (0/8) in 2023.

Information on timing of mother's HIV diagnosis was available for 871/1,007 (86.5%) mother-child pairs. Of which 799/871 (91.7%) had antenatal maternal diagnosis, and 661/799 (82.7%) had complete maternal interventions' information that were from 1994 onwards. Absence of antenatal ART was associated with vertical transmission (OR:14.20, 95% CI:3.71-54.34) but breastfeeding (OR:2.96, 95% CI: 0.40-21.97) and vaginal or emergency C-section (OR: 5.65, 95% CI: 0.71-44.90) were not predictors of transmission. Results should be interpreted with caution due to small sample size. Among children born to WLHIV with an antenatal HIV diagnosis, the transmission rate decreased from 27.8% (10/36) (pre- 1994) to 0.0% (0/226) (2014 onwards).

Conclusion:

No transmission occurred in children born to WLHIV with antenatal HIV diagnosis from 2014 onwards. Australia met the elimination target for 2023 but not for 2022 due to two transmissions (rate of 8.3%). Timely maternal HIV diagnosis and suppressive treatment are essential.

Disclosure of Interest Statement:

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