

PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV IN AUSTRALIA: AN ANALYSIS OF 30 YEARS OF NATIONAL SURVEILLANCE DATA

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Background: The internationally endorsed strategy of early testing and treatment has the potential to eliminate mother-to-child-transmission (MTCT) of HIV in countries where coverage is high. We examined long-term time trends in prevention strategies and MTCT rates in Australia.

Methods: Data from the Australian Paediatric Surveillance Unit (APSU) which flows into the Australian Perinatal HIV Surveillance System were analysed. Via APSU, paediatricians and other child health professionals notify infants born to HIV-positive mothers. Further information is then sought including demographics of infant and mother, maternal HIV exposure risk, HIV prevention interventions used and the infant's HIV status. We assessed time trends in the treatment coverage during pregnancy and MTCT rate over a 30-year period, using logistic regression.

Results: Between 1986 and 2015, there were 714 infants born in Australia to HIV positive mothers; 35 in 1986-1990 increasing by 6-fold to 205 in 2011-2015. Over a third (37%) of mothers were born in Sub-Saharan Africa or South-East Asia, increasing from 11% in 1986-1990 to 46% in 2011-2015 ($p < 0.001$). The proportion of mothers on treatment was 18% prior to 1995 increasing to 97% in 2010-2015 ($p < 0.001$). Overall 65 (9%) of infants were confirmed HIV-positive and the MTCT rate declined from 37.1% in 1986-1990 to 1.5% in 2011-2015 ($p < 0.001$). In the last 5-year period, there were 3 transmissions reported (all in 2012), equating to a MTCT rate of 4.1% or 0.97 cases per 100 000 live births in this year, and 0% in all other years. Of the three transmissions, HIV diagnosis occurred after the birth in one case, treatment non-adherence was reported by another, and no further information was provided on the third.

Conclusion: Australia has expanded services to provide significantly more HIV-positive women with interventions to avoid HIV transmission during pregnancy, with successful results. Efforts must be maintained to ensure high coverage.