

Closing the gap of perinatal HIV infection in Hong Kong

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Background

- To achieve the ultimate goal of eliminating perinatal transmission, we reviewed and identified gaps of the current public health programme for the prevention of mother-to-child transmission (PMTCT) of HIV in Hong Kong, a region with low HIV seroprevalence of <0.01% in the antenatal population
- The Universal Antenatal HIV Testing Programme (UATP) was introduced in 2001, with an aim to interrupt MTCT through timely diagnosis and management of infected expectant mothers
- The programme was strengthened with implementation of Rapid HIV Testing component in 2008 to offer rapid HIV test in labour wards for women who did not receive testing in early antenatal period

Methods

- We reviewed the programme performance, and matched with perinatal infections reported

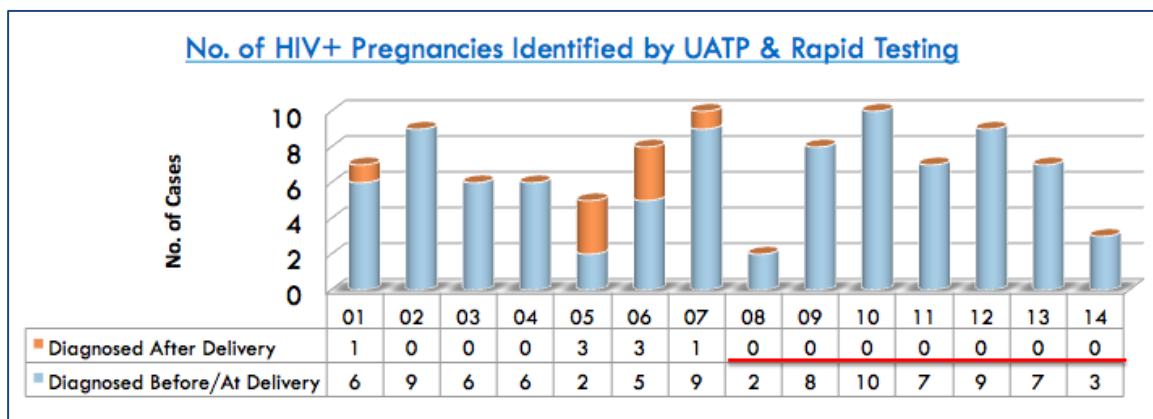
Table 1. Three cases of perinatal HIV infections due to late presentation to antenatal care prior to introduction of Rapid HIV Testing in labour units

	2001	2006	2007
Ethnicity of mother	Filipino	Chinese	Nepalese
Maternal HIV diagnosed via	UATP (<i>No Rapid Testing before 2008</i>)		
Reasons for failure to prevent MTCT	Maternal HIV diagnosed after delivery, no timely intervention given	Maternal HIV diagnosed after delivery, no timely intervention given	Late HIV diagnosis during antenatal period + mother received ARV late
ARV drugs to mother	nil	nil	6 days before delivery (baby delivered preterm)
ARV drugs to infant	nil	yes	yes
Mode of delivery	Vaginal	Vaginal	Caesarean section
Outcome	Mother & infant defaulted follow up	Mother left Hong Kong	Both being followed up in Hong Kong

Results

- UATP has high coverage rate of >98% in recent years
- From 2001 to 2014, 3 perinatal infections were identified out of 72 infants born to HIV-infected mothers. All three were detected before 2007, two of which were due to late presentation to antenatal care without participation in UATP. The others was due to failure of intra-partum and post-partum intervention when the mother presented 6 days prior to her pre-term delivery (Table 1)
- The incorporation of Rapid HIV Testing in 2008 had filled the gap for late-presenting pregnant women so that interventions could be offered to HIV-infected women not identified by UATP (Fig. 1)
- Since 2008, the percentage of women with HIV test results known prior to delivery remained above 98.6%; and 97% of HIV positive mothers and their babies had received either 3-part or 2-part ART
- However, five cases of HIV-infected children born to their infected mother who were tested negative by UATP in the early antenatal period were reported in 2009 to 2015. Unprotected sex during pregnancy was the common risk factor. All 5 mothers and all but one of the spouses/partners were either non-Hong Kong residents or originated from Asian or African countries where the HIV prevalence was higher than Hong Kong, highlighting this unique epidemiological pattern.

Figure 1



Conclusion

- The gap in PMTCT in Hong Kong lies in the HIV-infected women who seroconverted after they were tested negative in the early antenatal period
- Partner counselling and testing, enhancement of safer sex, targeted HIV retesting at third trimester for pregnant women based on their epidemiological and behavioural risks are options to close the gap