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UK Mother to Child HIV Transmission Rates Continue to Decline: 2012-2014

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To the Editor,

World AIDS Day provides the opportunity for the HIV community to reflect on successes and challenges in the global response to HIV, including those in preventing mother-to-child transmission (MTCT).

In 2014, we reported that the national MTCT rate in the United Kingdom (UK) and Ireland had reached the all-time low of 0.46% in 2010-2011 [1]. With this update, we show a continued decline in recent years.

Comprehensive population-based data on all HIV-positive pregnant women seen for care in the UK and Ireland are collected through active surveillance within the National Study of HIV in Pregnancy and Childhood (NSHPC)[2]. HIV-exposed infants are followed up to establish infection status.

In 2012-2014, there were 3290 singleton live birth deliveries to women diagnosed prior to delivery. Infection status was confirmed in 78% of infants (2580/3290) to date, although those with unknown status are unlikely to be at a higher risk of MTCT [3]. Overall 73% (2360) were African-born and median maternal age was 34 years (IQR: 30yr, 37yr). There were seven transmissions among the 2580 infants, giving a MTCT rate of 0.27% (95% confidence interval 0.11%, 0.56%) (Figure).

Eighty-five percent of deliveries in 2012-2014 were in women diagnosed before pregnancy (2781/3290), versus 72% in 2007-2011 (4776/6585) (p<0.001). Overall 60% of deliveries were in women conceiving on cART in 2012-2014 (1874/3136), compared to 40% (2516/6309) in 2007-2011. Vaginal deliveries increased to 46% (1495/3268) in 2012-2014 from 37% in 2007-2011 (2425/6281) (p<0.001). Overall 87% of women delivered with HIV RNA <50 copies/ml (1749/2012) and among these the MTCT rate was 0.14% (95% CI: 0.02%, 0.52%).

Among the seven transmissions, maternal diagnosis occurred before pregnancy in four cases (three women conceived on treatment); there was one seroconversion during pregnancy. Two infants had *in utero* transmission (positive PCR aged ≤3 days), four intrapartum transmission (negative birth PCR, positive PCR aged ≤6 weeks), and one intrapartum/postnatal (PCR negative at 6 weeks and positive aged >6 weeks). Four women had an undetectable viral load close to delivery.

As result of high rates of viral suppression in pregnancy the management of labour for women with HIV has changed [4], with nearly half now delivering vaginally. However, women need continued support with adherence to treatment postnatally, particularly when ART is started during pregnancy [5]. Among the 15% of women diagnosed as a result of screening in pregnancy, earlier initiation of ART in recent years is likely to have contributed to the declining transmission rates, although some migrant groups and parous women continue to access services late[6]. The changing population of pregnant women with HIV in the UK, including increasing numbers of those aged ≥40 years and of vertically-infected pregnant women, has additional implications for pregnancy management to optimize maternal and child health [7, 8].

The continued decline in the UK/Ireland MTCT rate from 0.46% in 2010-2011 to 0.27% in 2012-2014 demonstrates the impact of sustained efforts to provide optimal treatment and care to all women living with HIV, and their infants, before, during and after pregnancy.

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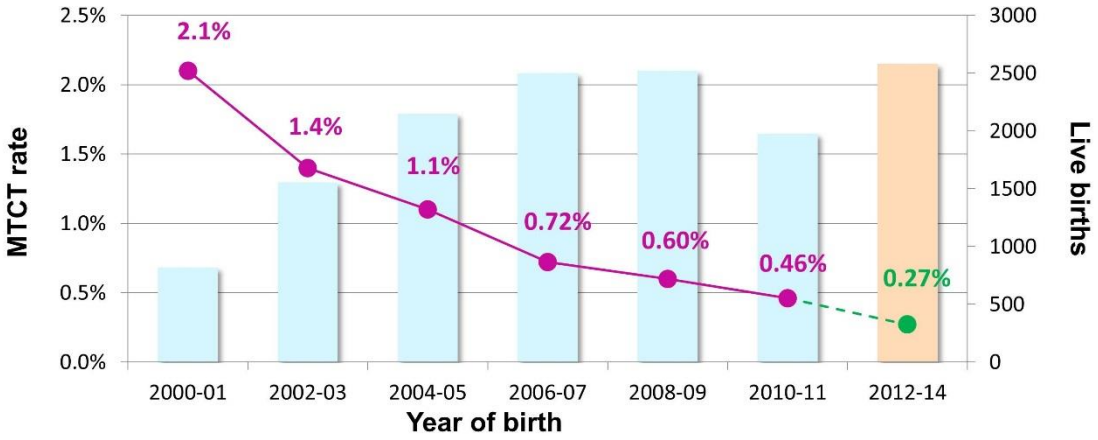
Figure



Note: Data for 2000-11 derived from data in Townsend *et al*. [1]; Data for 2012-14 update from NSHPC reports to September 2016.