

National Surveillance of HIV
NSHPC
in Pregnancy and Childhood

Successes and emerging challenges in prevention of vertical HIV transmission in the UK & Ireland

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BACKGROUND

- In the UK and Ireland the **vertical HIV transmission rate** (VTR) declined from 2.1% in 2000-01 to **0.27%** in 2012-14 among diagnosed women living with HIV
- Due to:
 - high uptake of antenatal screening (>99%)
 - improvements in management of HIV in pregnancy
 - increased proportion of women on ART from conception



BACKGROUND

- The British HIV Association (BHIVA) currently recommends formula-feeding infants born to women living with HIV, eliminating postnatal transmission risk
- However, BHIVA also states that **virologically suppressed treated women with good adherence** to antiretroviral therapy (ART) who **choose/plan to breastfeed may be clinically supported** to do so
- Guidelines on diagnostics for breastfed infants and maternal viral load monitoring have been updated, and include monthly testing for mother and infant

www.bhiva.org/pregnancy-guidelines

METHODS

The **National Surveillance of HIV in Pregnancy & Childhood** (NSHPC) conducts **comprehensive surveillance** of obstetric and paediatric HIV in UK and Ireland, running since 1989

- **All pregnancies** in diagnosed women living with HIV **and their infants**, as well as all **children diagnosed with HIV** are reported
- Over 20,000 pregnancies reported to date, approx. 1200 per year
- The NSHPC also conducts **enhanced data collection on reports of perinatal transmissions** and **planned/supported breastfeeding** among diagnosed women

We report maternal characteristics and vertical transmissions among singleton liveborn infants in 2015-16 with infection status reported by March 2018 and reports of planned and/or supported breastfeeding since 2012

RESULTS

In 2015-16 there were **1914 singleton livebirths** to HIV diagnosed women

- 70% (1347/1909) of women were Black African
- 83% (1555/1881) of mothers were born outside the UK/Ireland
- **88%** (1691/1914) of women were **diagnosed prior to pregnancy**
- Median age at delivery was 34yr (IQR: 30,37)

Maternal characteristics

Characteristic	N (%)
Ethnicity	<i>n</i> =1909
Black African	1347 (70%)
White	396 (21%)
Other	166 (9%)
Place of birth	<i>n</i> =1881
UK/Ireland	326 (17%)
Africa	1315 (70%)
Elsewhere	240 (13%)
Timing of diagnosis	<i>n</i> =1914
Before pregnancy	1691 (88%)
During pregnancy	223 (12%)
ART initiation	<i>n</i> =1861
At conception	1307 (70%)
During pregnancy	554 (30%)
Viral load (copies/ml) at delivery*	<i>n</i> =1231
<50	1141 (93%)
51-999	72 (6%)
≥1000	18 (1%)

*within 30 days of delivery

HIV IN PREGNANCY-CURRENT PICTURE IN UK/IRELAND

In 2015-16...

>99%
deliveries
to women
on ART



70% of women on ART at conception

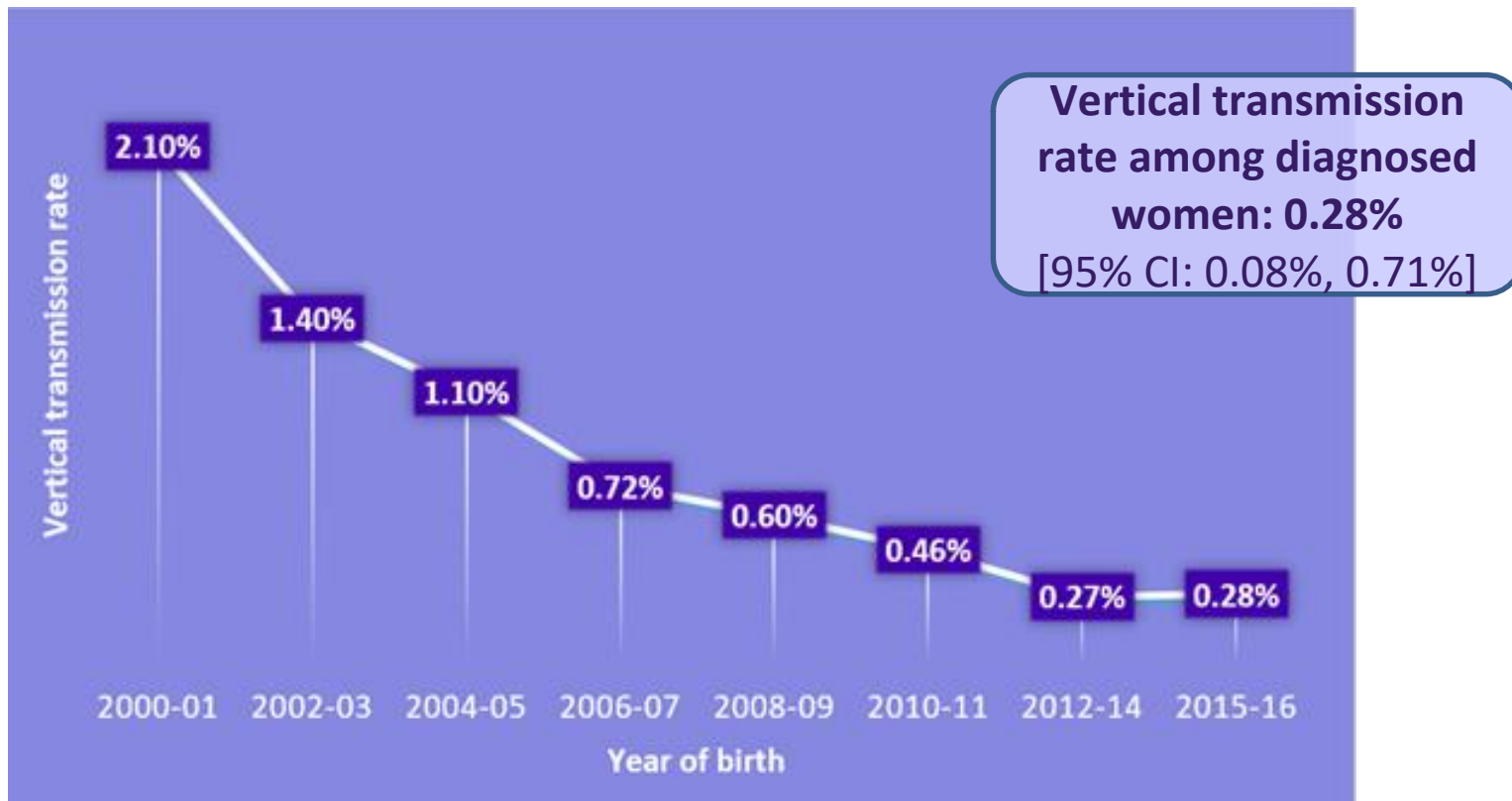


Proportion of women with **undetectable viral load** at delivery **93%** in 2015-16



VERTICAL TRANSMISSION RATES IN DIAGNOSED WOMEN

Infection status was confirmed for **75%** (1438/1914) of infants born 2015-16



The vertical transmission rate among **women diagnosed pre-pregnancy** with **undetectable VL throughout pregnancy** was **0.17%** ([0.01%, 0.92%] 1/586)

VERTICAL TRANSMISSIONS: born to diagnosed women 2015-16

Four transmissions among 1438 infants with known infection status:



- **Two infants** whose **mothers were diagnosed after 20 weeks gestation** following late antenatal presentation, where transmission occurred *in utero* (positive PCR aged ≤ 3 days)
- **One infant** born to a **woman diagnosed pre-conception with detectable delivery VL** (*in utero* transmission)
- **One infant** with **postnatal transmission probably via breastfeeding** (PCR negative at 6 weeks, positive aged 18 months)

Note: The NSHPC's ongoing Vertical Transmissions Audit investigates antenatal screening and management of women whose infants acquire HIV vertically in UK

BREASTFEEDING

- Of note, for the likely case of **postnatal transmission** described, **breastfeeding was not communicated** to clinicians
- There have been **over 130 reports** of **planned and/or supported breastfeeding** among women on fully suppressive therapy since 2012 (duration varies from 1 day to 2 years/ongoing)
- The NSHPC launched **enhanced data collection** of breastfeeding cases last year. This includes seeking **all maternal and infant test results** during breastfeeding. This is the **first time this data has been collected in the UK**, and will provide valuable insights to inform future guidelines
- Of these 130 cases, interviews have been carried out for 95. **Infection status has not yet been confirmed in many cases** and monitoring is ongoing



SUMMARY

- The **vertical transmission rate** among diagnosed women living with HIV in the UK/Ireland **remains very low at 0.28%**
 - the proportion of women achieving **undetectable delivery VL** has increased to **93%**, reflecting sustained efforts to provide optimal treatment and care to women and infants
- **The increased reports of breastfeeding in the UK** in this period are likely to be linked to guideline updates, the current ‘U=U’ era and continued strides towards normalisation of maternity experiences for women living with HIV
- However **breastfeeding cases require careful monitoring**, enabled by the NSHPC parallel paediatric surveillance scheme, to **ensure identification of any late postnatal transmissions** and appropriate adjustment of the vertical transmission rate if required

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