



# Trends in characteristics and care of women diagnosed with HIV during pregnancy in the UK

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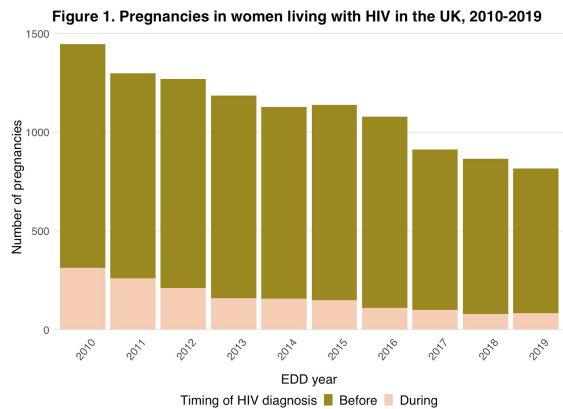
**BACKGROUND.** Prompt HIV diagnosis and initiation of antiretroviral therapy (ART) in pregnancy are key in reducing risk of vertical transmission and adverse birth outcomes and optimizing maternal health.

The Integrated Screening Outcomes Surveillance Service (ISSOS) conducts population-based surveillance of pregnancies in women living with HIV in the UK on behalf of the NHS Infectious Diseases in Pregnancy Screening Programme.

**AIM.** We aimed to assess trends in characteristics, timing of diagnosis, and treatment of women diagnosed during pregnancy in the UK.

**METHODS.** Analyses were based on pregnancies in women diagnosed before delivery with estimated date of delivery (EDD) in 2010-2019 (reported to ISSOS by December 2020). Trends were assessed using logistic regression and Cuzick's non-parametric test for trend.

**RESULTS.** The number of pregnancies reported to ISSOS by timing of diagnosis is shown in Figure 1. Maternal HIV diagnosis was made antenatally in 14.5% (1617/11,140) of pregnancies. The proportion of pregnancies with antenatal diagnosis declined from 21.7% (314/1446) in 2010 to 10.2% (83/817) in 2019 ( $p<0.001$ ).

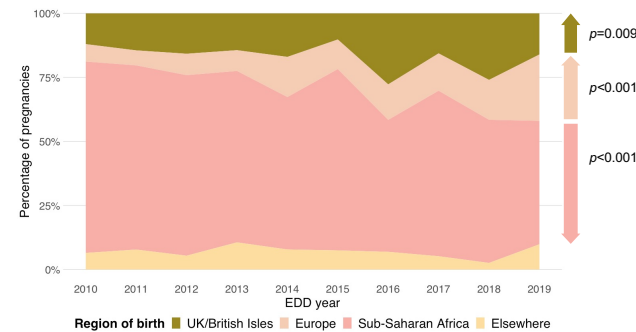


Most (93.3%, 1509/1617) pregnancies with antenatal diagnosis were reported by hospitals in England, increasingly by those outside London (51.0% (160/314) in 2010, 62.6% (55/83) in 2019,  $p<0.001$ ).

## CHARACTERISTICS OF WOMEN DIAGNOSED DURING PREGNANCY IN THE UK

Median maternal age at EDD was 31 years (interquartile range [IQR] 27-35) and remained stable over the time period ( $p=0.084$ ). The proportion of women born in sub-Saharan Africa decreased significantly (Figure 2).

Figure 2. Region of birth, 2010-2019



Median gestational age at diagnosis declined from 13 weeks (IQR 10-17) in 2010 to 12 weeks (IQR 9-16) in 2019 ( $p=0.018$ ), whereas median first reported CD4 count in pregnancy remained largely unchanged (Figure 3).

Figure 3. Timing of diagnosis and first CD4 count in pregnancy, 2010-2019

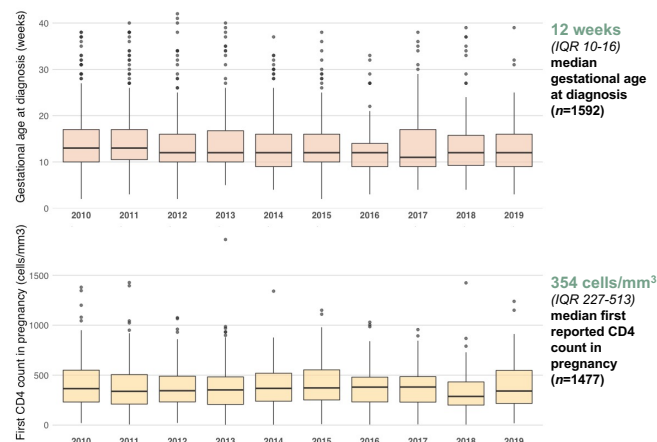
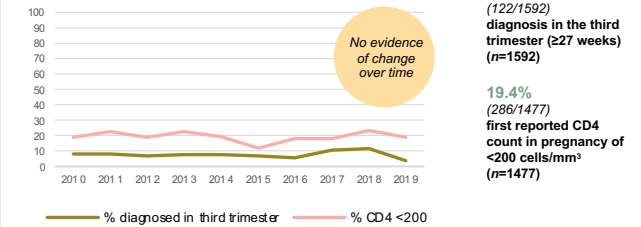


Figure 4. Late diagnosis in pregnancy, 2010-2019



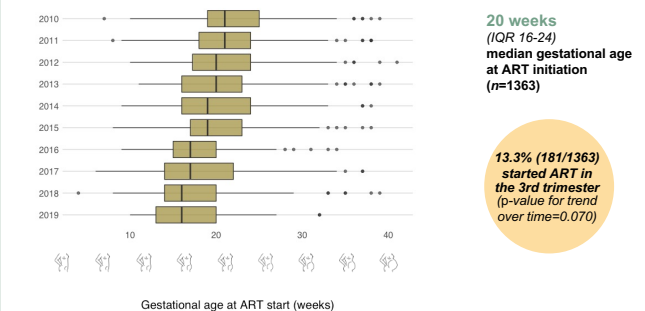
Among the 1544/1617 (95.5%) pregnancies with known outcomes, there were 1431 (92.7%) livebirths, 18 (1.2%) stillbirths, 66 (4.3%) spontaneous abortions, and 29 (1.9%) terminations.

## TIMING OF ART INITIATION AMONG WOMEN WHO GAVE BIRTH

1431/1449 women with live- or stillbirths had information on ART. Most (99.4%, 1422/1431) received some level of antenatal ART.

Median gestational age at ART initiation declined from 21 weeks in 2010 (IQR 19-25) to 16 weeks in 2019 (IQR 13-20) ( $p<0.001$ ) (Figure 5).

Figure 5. Gestational age at ART start, 2010-2019



**CONCLUSION.** Women diagnosed with HIV during pregnancy in the UK are diagnosed and initiated on ART earlier than in previous years, reflecting improved care pathways and changes in clinical guidelines.

However, HIV diagnosis in pregnancy at advanced disease stage and HIV diagnosis in late pregnancy persist and warrant further investigation, particularly given underlying shifts in maternal demographic characteristics.

## FUNDING AND GOVERNANCE

ISSOS undertakes this work on behalf of Public Health England (PHE) Infectious Diseases in Pregnancy Screening Programme. Patient data are collected under legal permissions granted to PHE under Regulation 3 of the Health Service (Control of Patient Information) Regulations 2002.

## ACKNOWLEDGMENTS

Thanks to the respondents who report to ISSOS and the rest of the current ISSOS team.

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