



Integrated Screening Outcomes Surveillance Service

Trends in maternal characteristics and pregnancy outcomes among women living with HIV in England: 2015-20

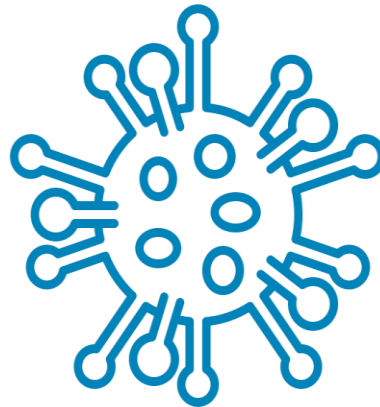
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BASHH, Llandudno June 2023

Background

- The low HIV vertical transmission rate (<0.3%) in the UK reflects the ongoing successes of antenatal screening and clinical management of HIV in pregnancy
- HIV population level surveillance has been running in the UK for over 30 years and allows for monitoring of trends



Aim:

To describe recent trends in characteristics and outcomes of pregnancies in women living with HIV in England in 2015-2020 using data from the Integrated Screening Outcomes Surveillance Service (ISOSS) part of the NHS Infectious Diseases in Pregnancy Screening Programme (IDPS)

Methods



- **ISOSS** conducts surveillance of HIV, hepatitis B and syphilis in pregnancy
- **HIV surveillance: all pregnancies to women living with HIV in England*, their infants and any children diagnosed with HIV (aged <16 years) are reported to ISOSS.**
- All children and young people living with HIV are followed by the **Children's HIV and AIDS Reporting System (CHARS)**

*as of 2020 ISOSS is an England only service

Analyses

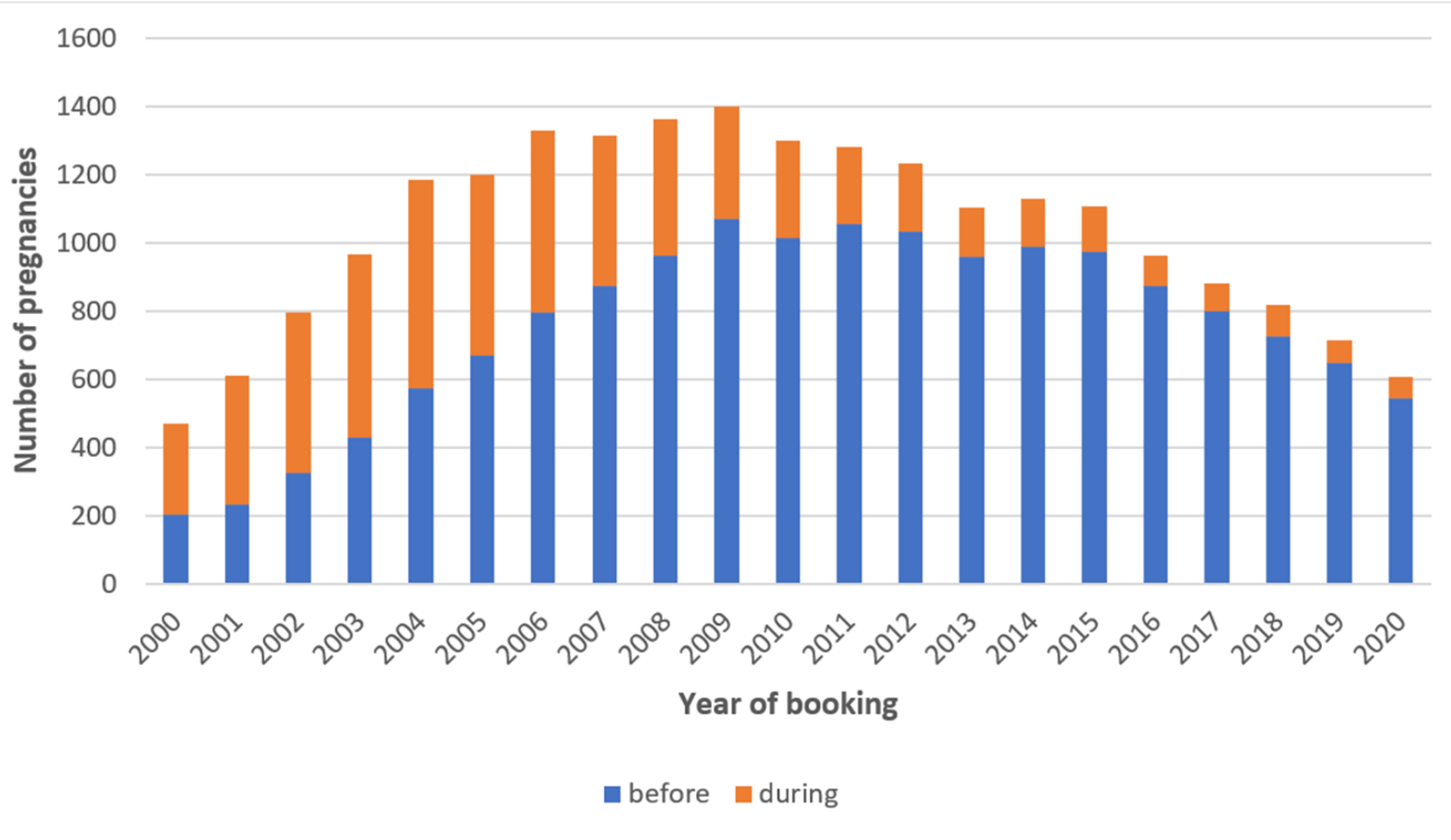
- Dataset: 5,116 pregnancies to women living with HIV diagnosed before delivery booked for antenatal care in 2015 to 2020, reported to ISOSS by 31/12/2021

Definitions

- First CD4 count was considered as earliest result since antenatal booking
- Delivery viral load (VL) was reported VL result within 30 days prior to and 7 days post-delivery

ISOSS collects patient data under legal permissions granted under Regulation 3 of The Health Service (Control of Patient Information) Regulations 2002

Timing of maternal diagnosis



Annual number decreased from ~1,000 in 2015-16 to 600-700 in 2019-20

Proportion of women diagnosed during pregnancy declined over time

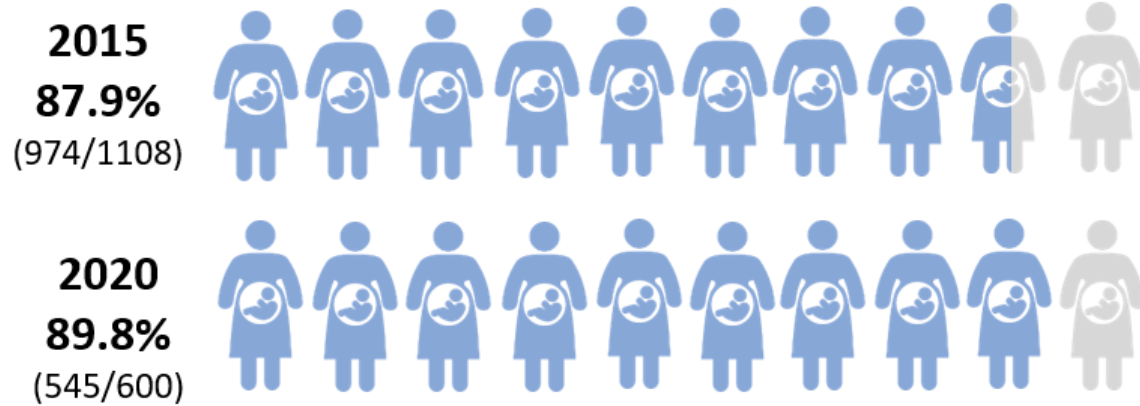
Maternal socio-demographics

- Shifts in key maternal characteristics over time (all statistically significant, $p < 0.001$)
- 2015-20: median age at estimated date of delivery was 34 years (Q1:30, Q3:38), increasing over time

Characteristic	2015	2020
Maternal age >40 years	14.3%	19.1%
Sub-Saharan Africa-born	72.0%	61.5%
Eastern Europe born	4.7%	6.5%
UK-born	15.9%	20.8%
Vertically-acquired HIV	1.5%	5.6%

Clinical characteristics

Maternal diagnosis before pregnancy, $p=0.36$



Pregnancies conceived on ART, $p<0.001$



% on **ART at conception** increased from 77.8% in 2015 to 92.1% in 2020 ($p<0.001$)

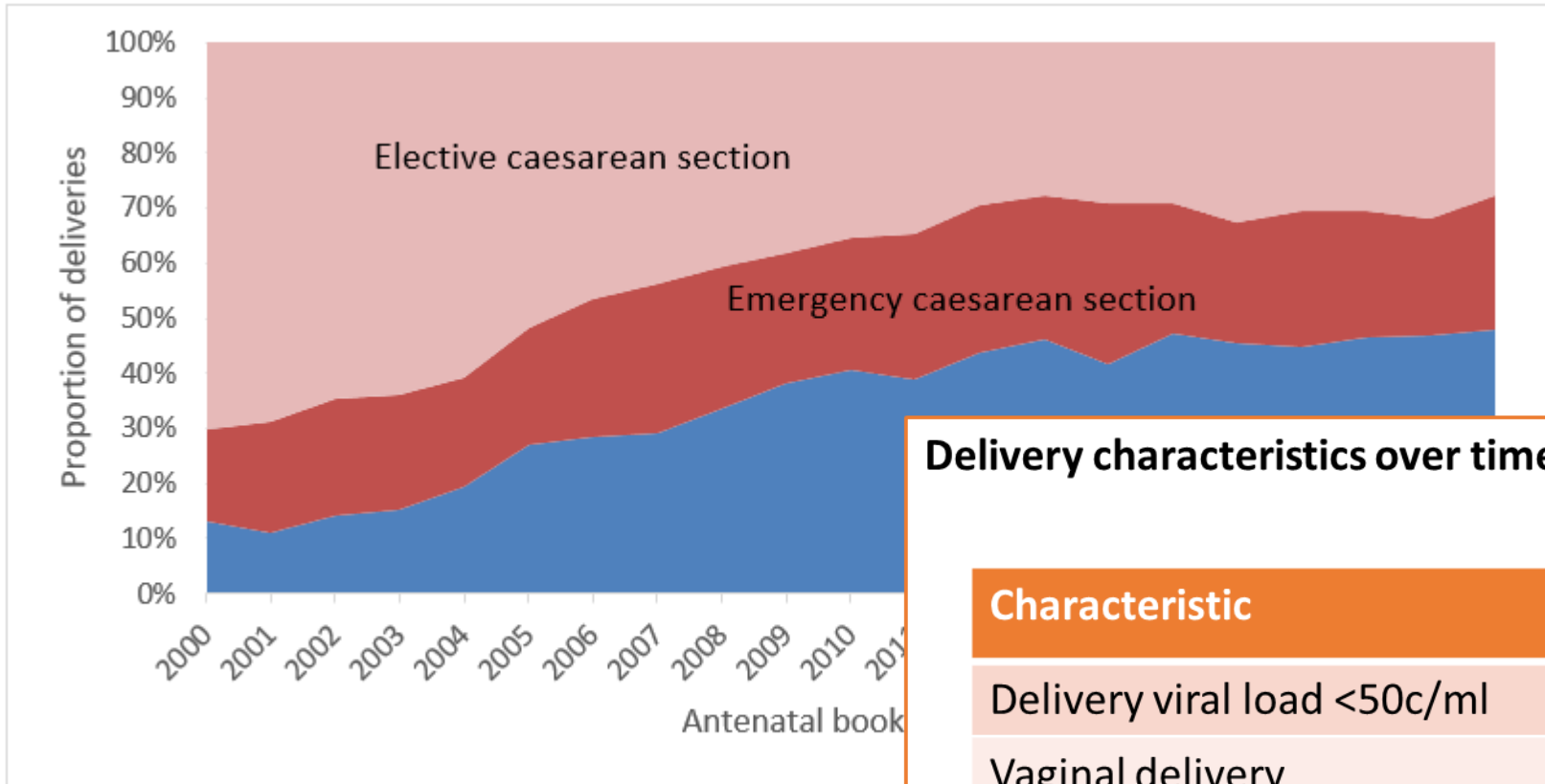
54.4% of women had first antenatal CD4 count >500 cells/mm³ in 2015, increasing to 58.5% in 2020 (not significant)

Among women with antenatal diagnosis, ART started increasingly earlier

2015: 19 weeks gestation (Q1:16, Q3:23)

2020: 16 weeks gestation (Q1:14, Q3:20)

Pregnancy outcomes

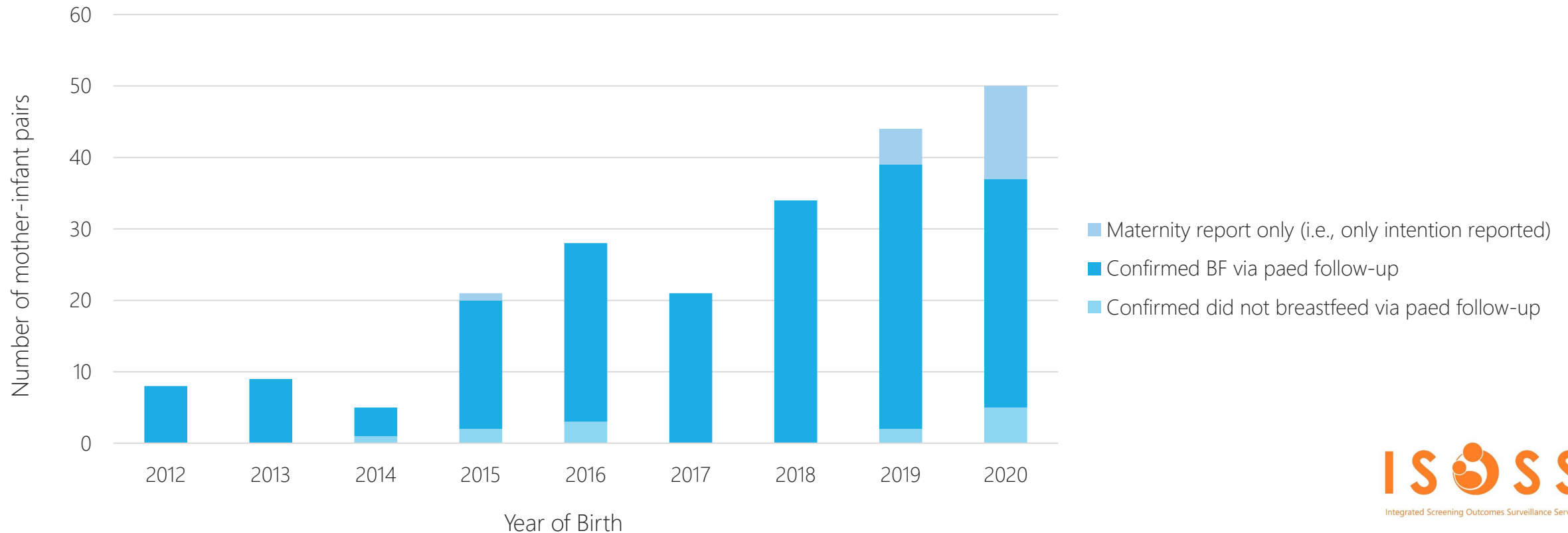


Delivery characteristics over time

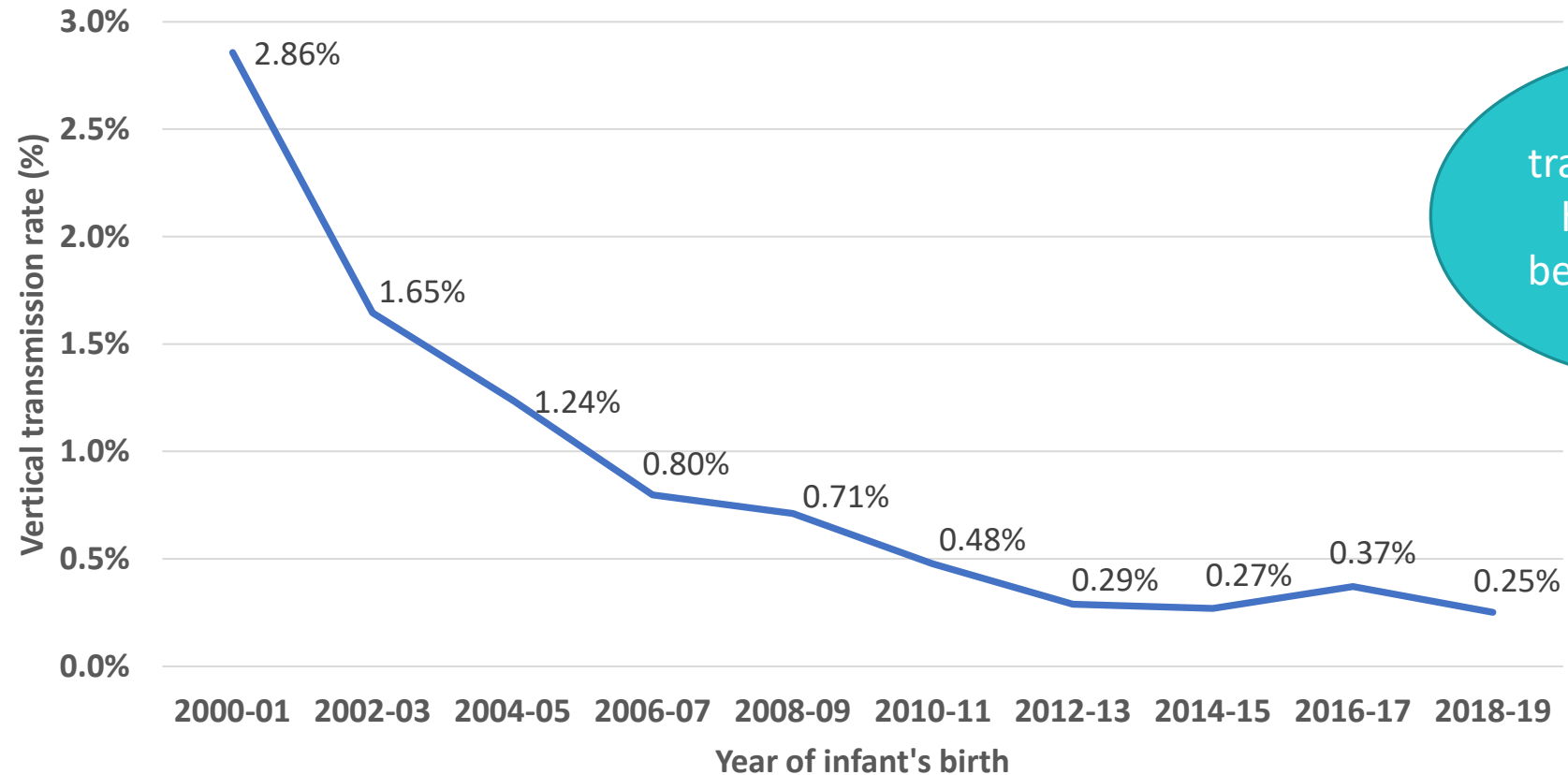
Characteristic	2015	2020
Delivery viral load <50c/ml	91.3%	93.4%
Vaginal delivery	47.3%	47.9%
Preterm delivery (37wk)	12.6%	12.3%

Supported breastfeeding

Supported breastfeeding cases, in line with British HIV Association guidelines (virally suppressed women on treatment with monthly testing for mother and baby), increased from 20-30 per year in 2015-16 to 40-50 in 2019-20.



Vertical transmission rate- England



Vertical transmission rate by year of birth for infants born to diagnosed women in England

For more insights into transmissions occurring in England, see ISOSS poster P043 on *HIV vertical transmission in England: the current picture*

Conclusions

- Changes in the population of women living with HIV accessing antenatal care in England have implications for care across services and require ongoing monitoring by ISOSS to best support guidelines and clinical management
- **Clinical outcomes are reassuring** with the current vertical transmission rate below 0.3%. The IDPS Programme is key to supporting engagement in pregnancy and current successes reflect the strength of existing clinical pathways
- The importance of a multi-disciplinary approach engaging maternity, paediatrics and sexual health across the pregnancy journey remains vital
- ISOSS will continue to monitor **emerging areas of interest including infant feeding and health inequalities**

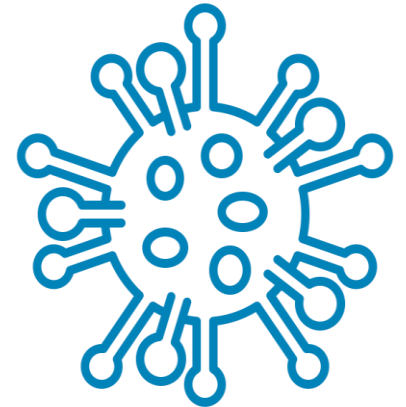
Acknowledgements

A big thank you to all respondents to ISOSS and the rest of the ISOSS team

ISOSS carries out this work as part of the NHS Infectious Diseases in Pregnancy Screening Programme: www.gov.uk/guidance/infectious-diseases-in-pregnancy-screening-programme-overview

Please do get in touch if you have any questions: helen.peters@ucl.ac.uk
More information on ISOSS: www.ucl.ac.uk/isoss

The ISOSS Annual HIV Report 2022 is available on gov.uk



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