



Integrated Screening Outcomes Surveillance Service

Trends in maternal characteristics and pregnancy outcomes among women living with HIV in the UK: 2014-19

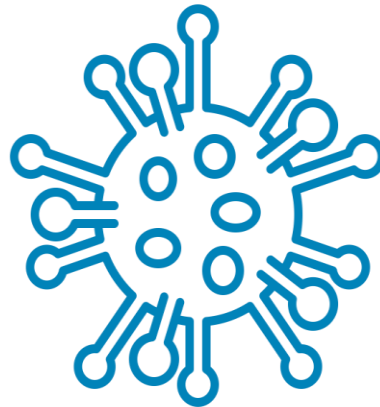
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HIV Glasgow, October 2022

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 (WLWH) in the UK in 2014-2019 using data from the NHS Integrated Screening Outcomes Surveillance Service (ISOSS)

Methods



- **ISOSS** conducts surveillance as a part of the NHS Infectious Diseases in Pregnancy Screening Programme (IDPS) commissioned by NHS England
- **All pregnancies to women living with HIV in the UK*, their infants and any children diagnosed with HIV (aged <16 years) are reported to ISOSS**

*as of 2020 ISOSS is an England only service

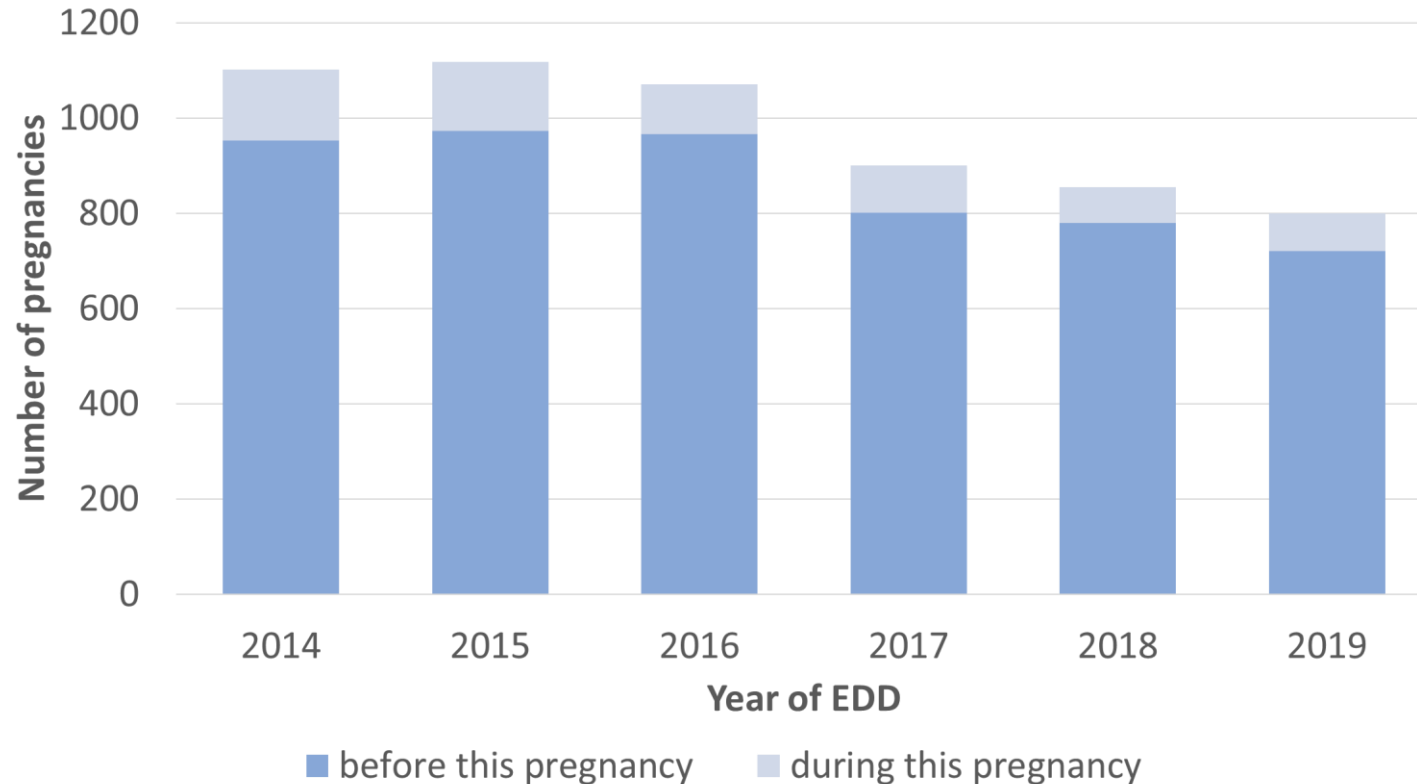
Analyses

- Dataset: pregnancies to women living with HIV diagnosed before delivery with estimated year of delivery 2014 to 2019, 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

5,858 pregnancies among 3,353 women



Annual number decreased from $\approx 1,100$ in 2014-15 to 800-900 in 2018-19

Proportion of women diagnosed during pregnancy declined over time

Timing of maternal HIV diagnosis 2014-2019

Maternal socio-demographics

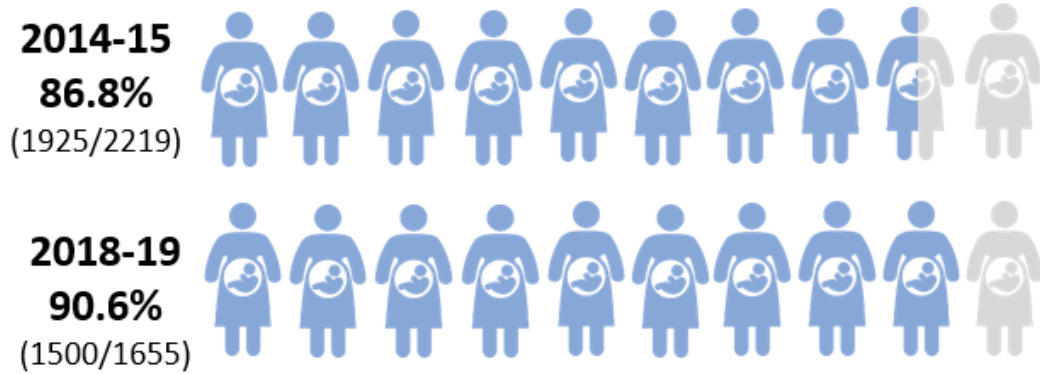
- Shifts in key maternal characteristics over time (all statistically significant, $p < 0.001$)
- 2014-19: median age at estimated date of delivery was 34 years (Q1:30, Q3:38), increasing over time

Characteristic	2014-15	2018-19
Maternal age >40 years	12.5%	19.1%
Sub-Saharan Africa-born	72.0%	64.1%
Eastern Europe born	4.3%	6.9%
UK-born	16.2%	18.8%
Vertically-acquired HIV	1.7%	3.7%

See ISOSS poster P001 on *Increasing numbers of pregnancies to women with vertically-acquired HIV in the UK: 2006 to 2021*

Clinical characteristics

Maternal diagnosis before pregnancy, $p < 0.001$



Pregnancies conceived on ART, $p < 0.001$



% on **ART at conception** increased from 77.8% in 2014-15 to 89.6% in 2018-19 ($p < 0.001$)

51.2% of women had first antenatal CD4 count > 500 cells/mm³ in 2014-15, increasing to 58.5% in 2018-19 ($p = 0.001$)

Among women with antenatal diagnosis, ART started increasingly earlier

2014-15: 19 weeks gestation (Q1:16, Q3:23)

2018-19: 16 weeks gestation (14, 20)

Pregnancy outcomes

There were 5117 (87.1%) livebirth and 44 (0.75%) stillbirth deliveries in total:

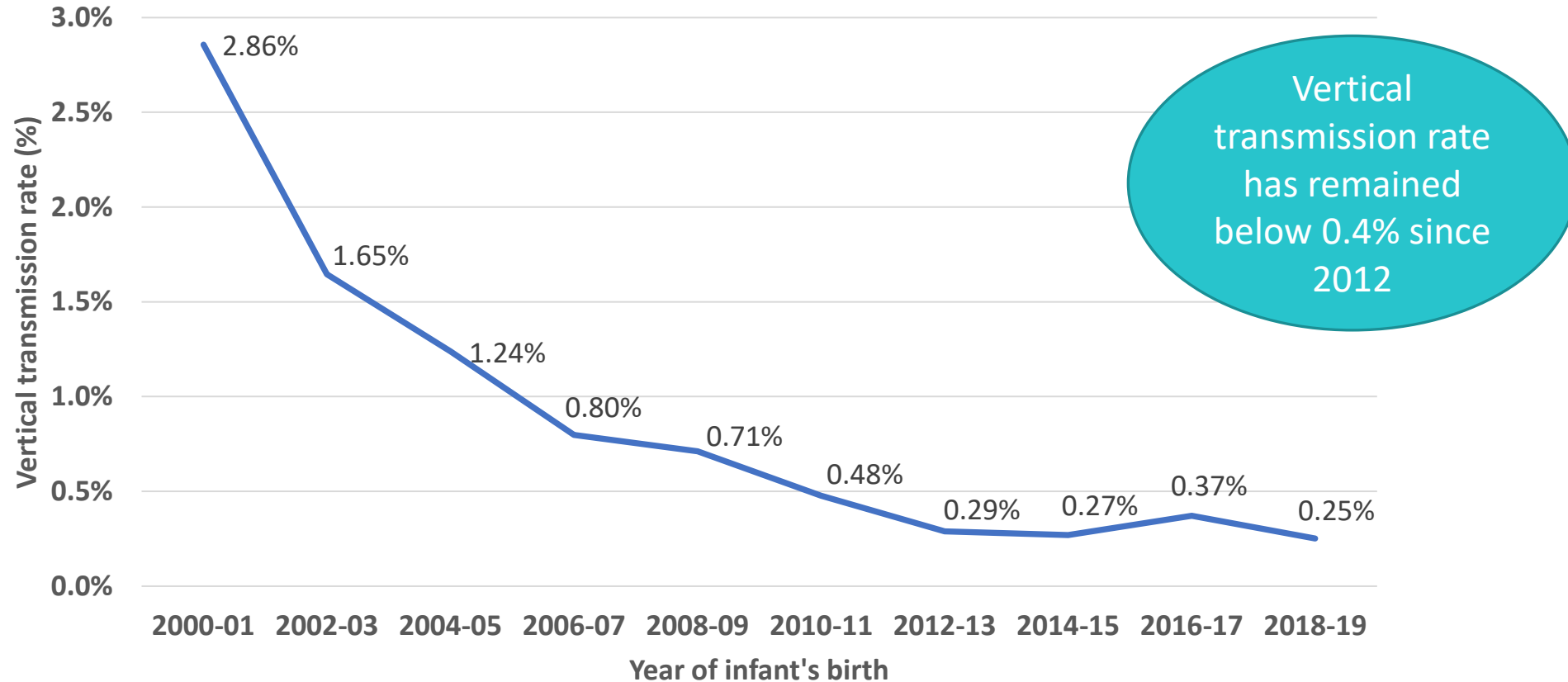
- Overall, **92.1% of deliveries were to women with viral load <50 copies/ml**, and for deliveries to women on ART from conception this was 95.5%
- **Supported breastfeeding** cases, in line with British HIV Association guidelines, increased from 1.5% (24/1595) in 2014-15 to 5.8% (72/1240) in 2018-19 ($p < 0.001$)

Characteristic	2014-15	2018-19
Delivery viral load <50c/ml	91.3%	93.1%
Vaginal delivery	44.3%	47.4% *
Emergency caesarean	26.9%	22.3% *
Preterm delivery	12.6%	12.2%

*statistically significant, $p < 0.001$

See ISOSS poster P041 on **Supported breastfeeding among women living with HIV in the UK: the current picture**

Vertical transmission rate- England



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

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For more insights into transmissions occurring in the UK, see ISOSS poster P002 on *HIV vertical transmission in England: the current picture*

Conclusions

- Changes in the population of women living with HIV accessing antenatal care in the UK 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

For more details on the information covered here see:

posters P001, P002 and P041 and visit the ISOSS/CHARS stand

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