

# Obstetric and paediatric HIV surveillance data from the UK



July 2020 update

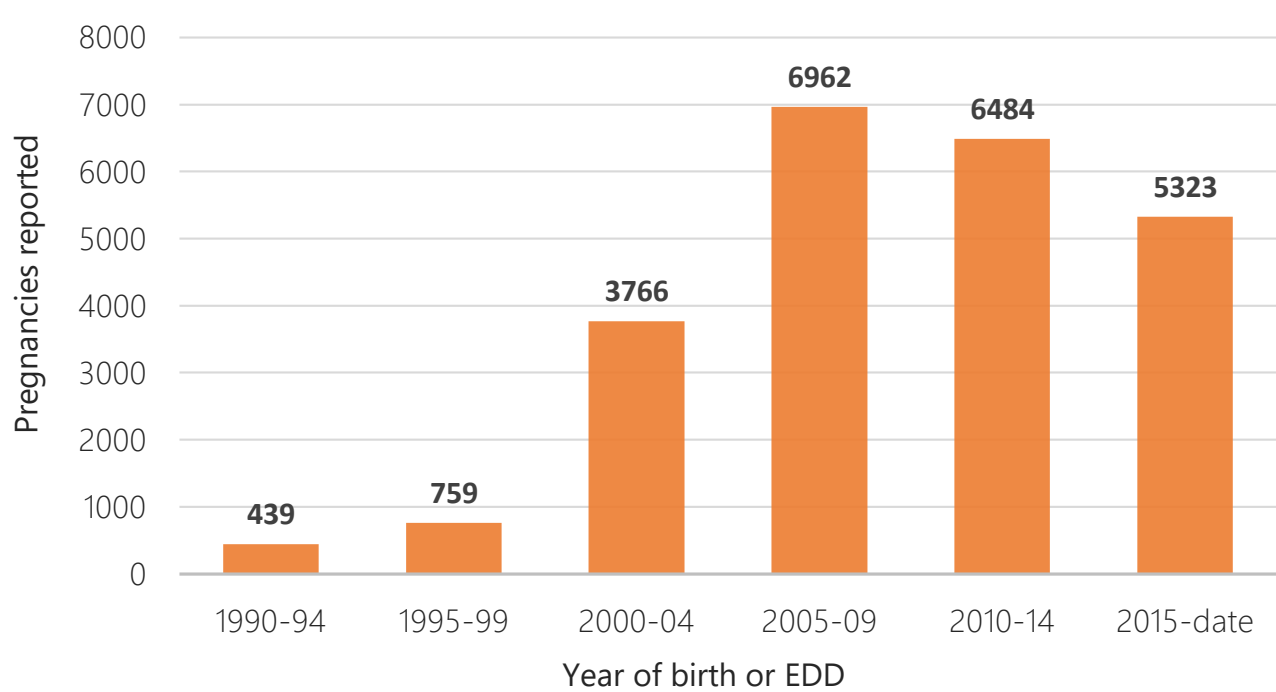
ISOSS is part of Public Health England's Infectious Diseases in  
Pregnancy Screening Programme



## Integrated Screening Outcomes Surveillance Service – HIV surveillance

- Comprehensive observational surveillance of obstetric and paediatric HIV in the UK building on the long-running National Surveillance of HIV in Pregnancy and Childhood (NSHPC), in place since 1990
- Maternity reports of all pregnancies in women living with HIV through maternity units; demographics, pregnancy management, outcome
- Paediatric reports of all HIV-exposed infants and diagnosed children (<16 years) through clinics; confirmation of infection status; ongoing follow-up of diagnosed children through CHIPS
- Patient data is collected without consent by ISOSS with PHE Regulation 3 approval
- Enhanced surveillance of:
  - cases of supported breastfeeding
  - all UK-born vertical transmissions

# Pregnancies in women with diagnosed HIV, 1990 to date (UK)

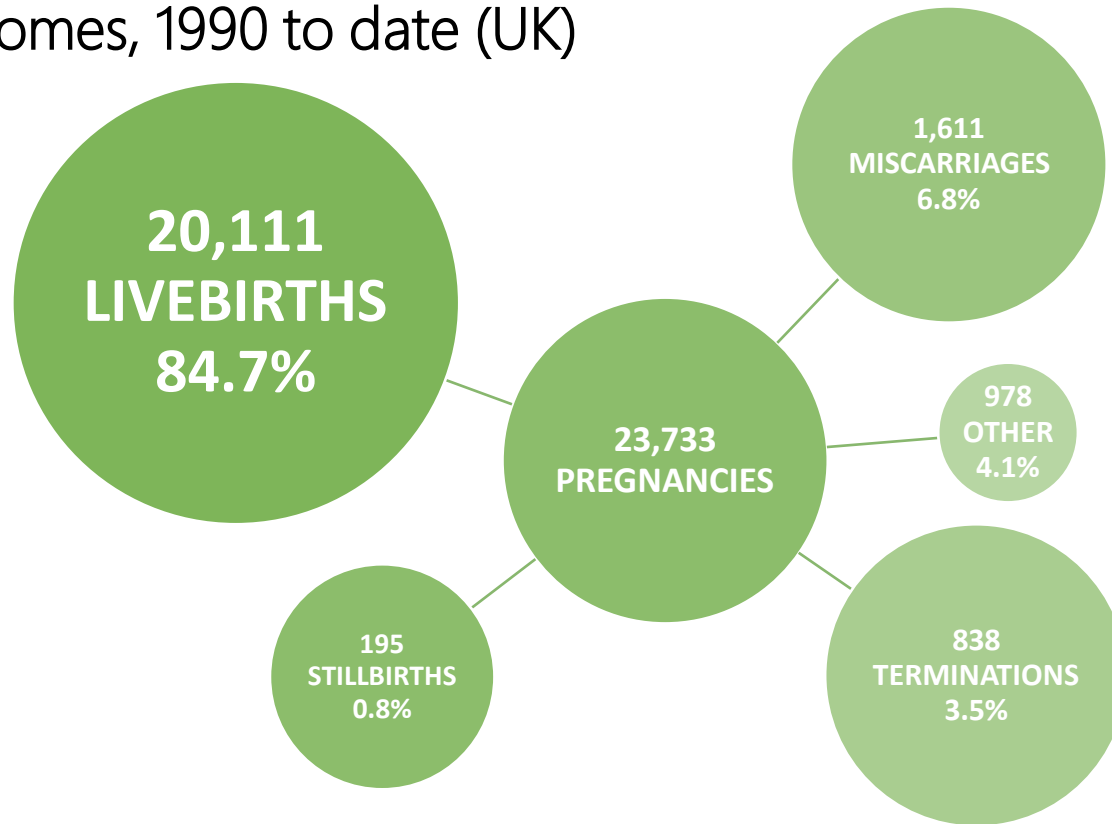


**23,733**  
pregnancies  
in diagnosed  
women since  
1990



Source: pregnancies since 1990 reported to the ISOSS by June 2020

## Pregnancy outcomes, 1990 to date (UK)



Source: pregnancies since 1990 reported to ISOSS by June 2020

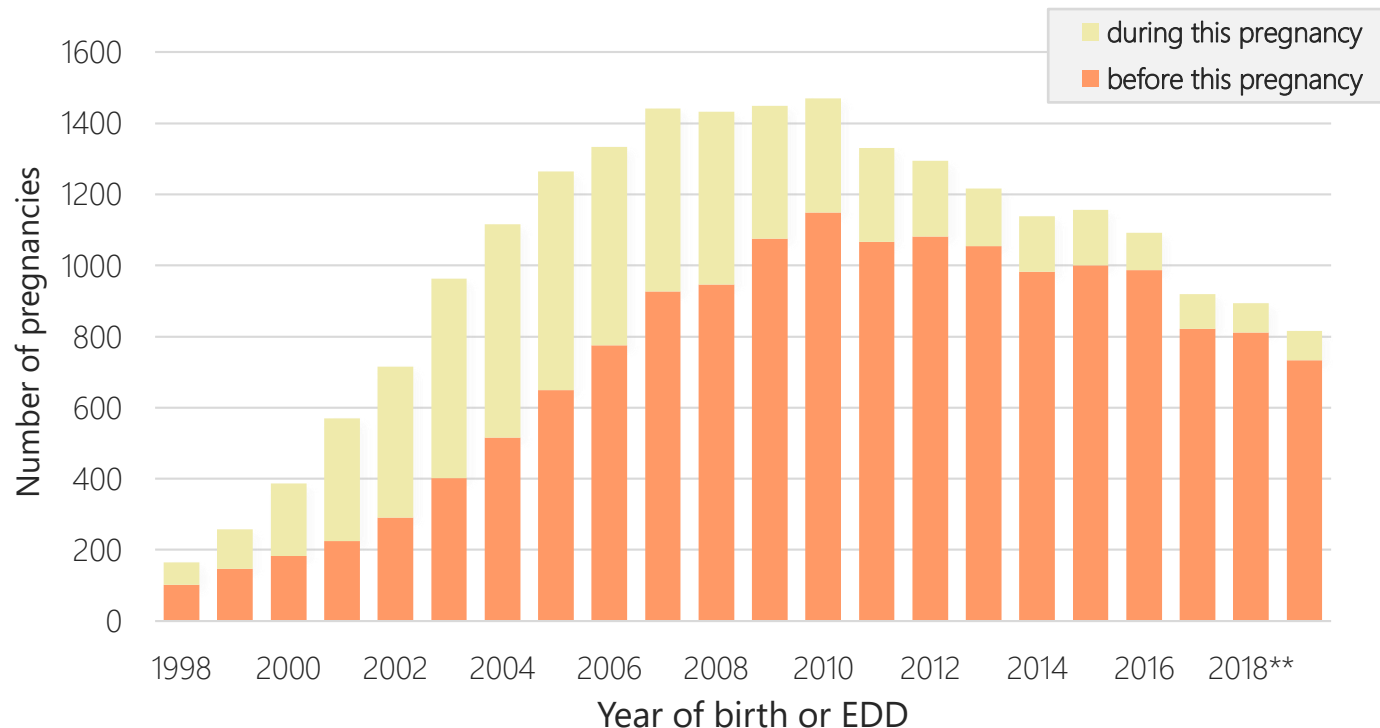
## Maternal demographics, early 2000s and now (UK)

		2000-04	→	2015-
<b>Country/region of report</b>	London	62.5%	→	37.4%
	Rest of England	33.8%	→	56.8%
	Scotland	2.8%	→	3.2%
	Wales / N. Ireland	1.0%	→	2.7%
<b>Median age (years)</b>		29	→	34
<b>IDU-acquired HIV</b>		2.6%	→	1.0%
<b>Perinatal HIV</b>		0.03%	→	2.8%
<b>African-born</b>		77.2%	→	66.4%
<b>Eastern Europe*-born</b>		0.3%	→	6.3%

\* includes the Baltic states (Estonia, Latvia, Lithuania)

Source: pregnancies since 1990 reported through ISOSS maternity scheme by June 2020

## Timing of maternal HIV diagnosis, UK 1998-2019



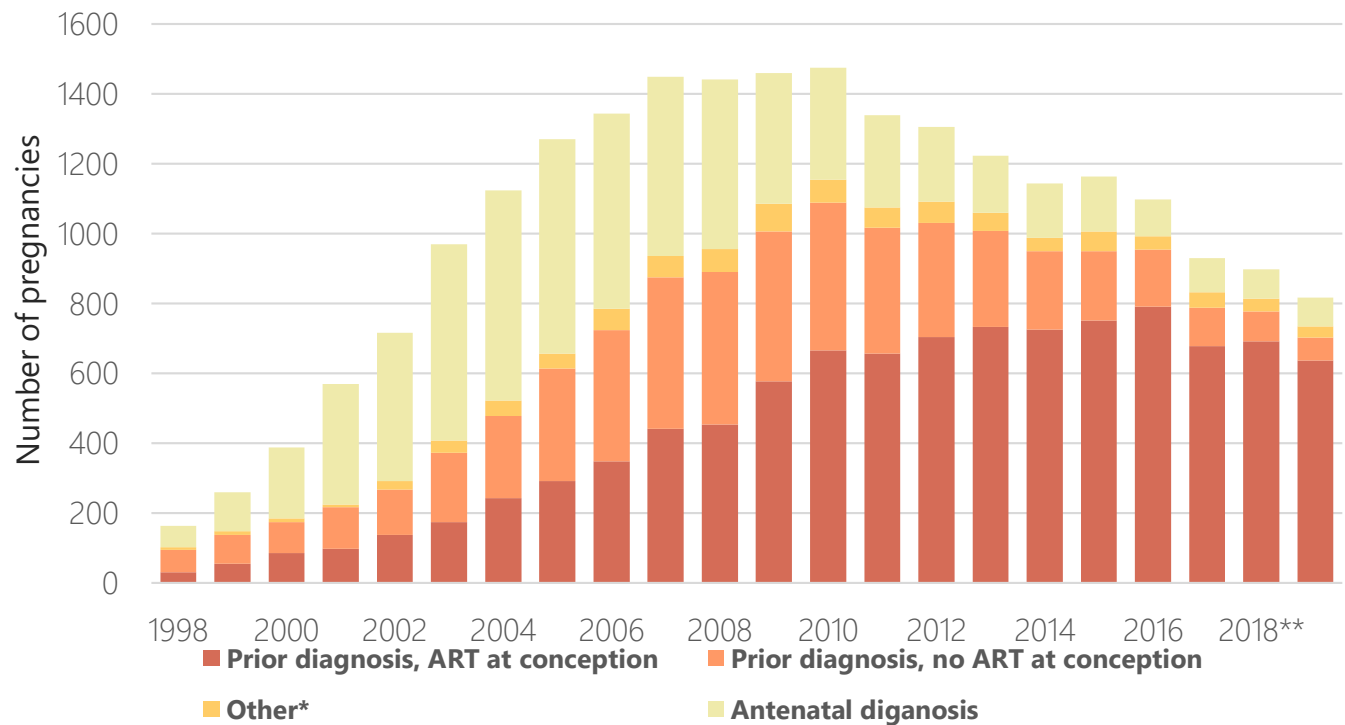
UK pregnancies (all outcomes) reported to ISOSS by June 2020\*

89% of pregnancies since 2015 have been in women diagnosed pre-conception

\* includes data from all ISOSS reporting sources; excludes 139 pregnancies missing timing of diagnosis

\*\* reporting delay for recent years

# Timing of diagnosis & ART at conception, UK 1998-2019



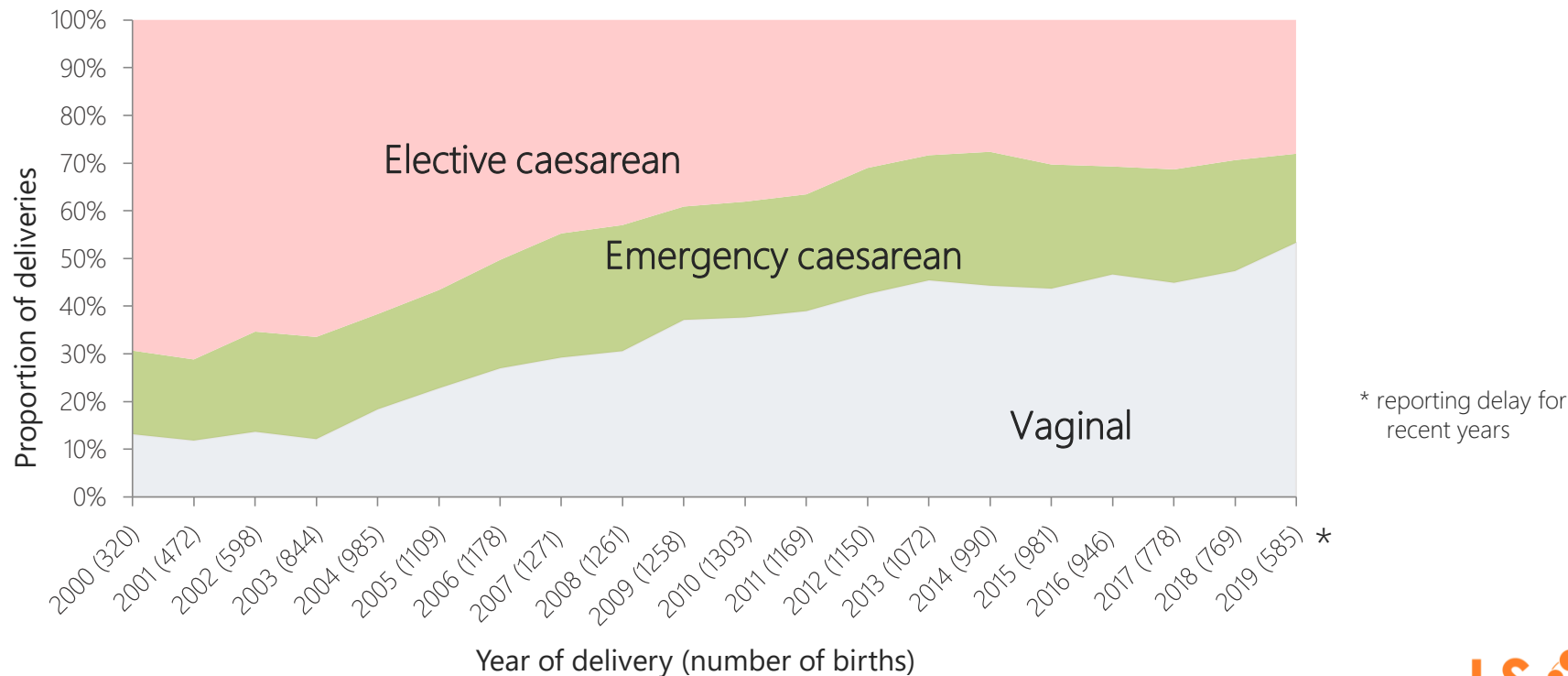
~76% of pregnancies since 2015 have been conceived on antiretroviral therapy

\* contains pregnancies lacking information on precise timing of diagnosis and/or ART use

\*\* reporting delay for recent years

UK pregnancies (all outcomes) reported to ISOSS by June 2020

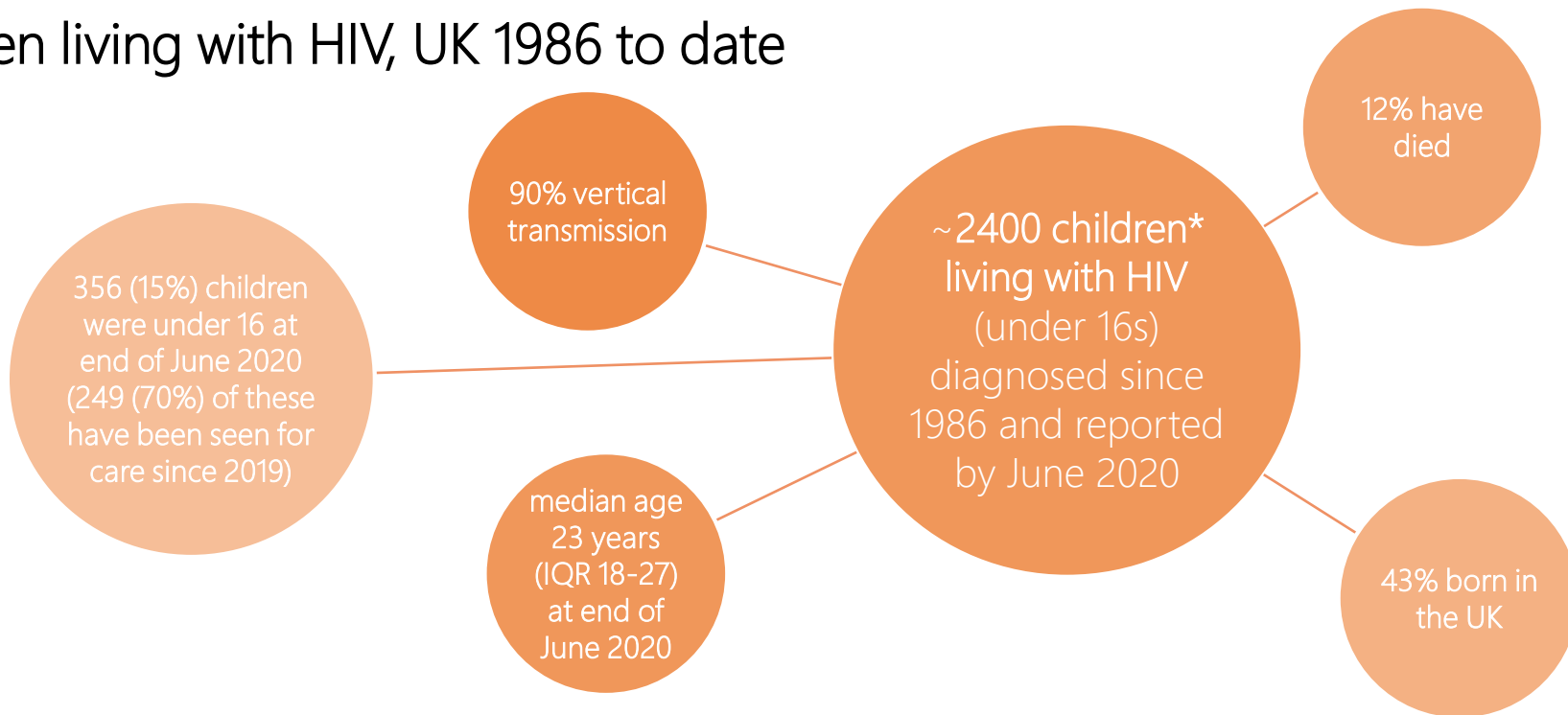
# Shifts in mode of delivery among diagnosed women, UK 2000-2019



UK deliveries reported to ISOSS by June 2020



# Children living with HIV, UK 1986 to date



\* excludes 267 children with haemophilia reported through a separate scheme



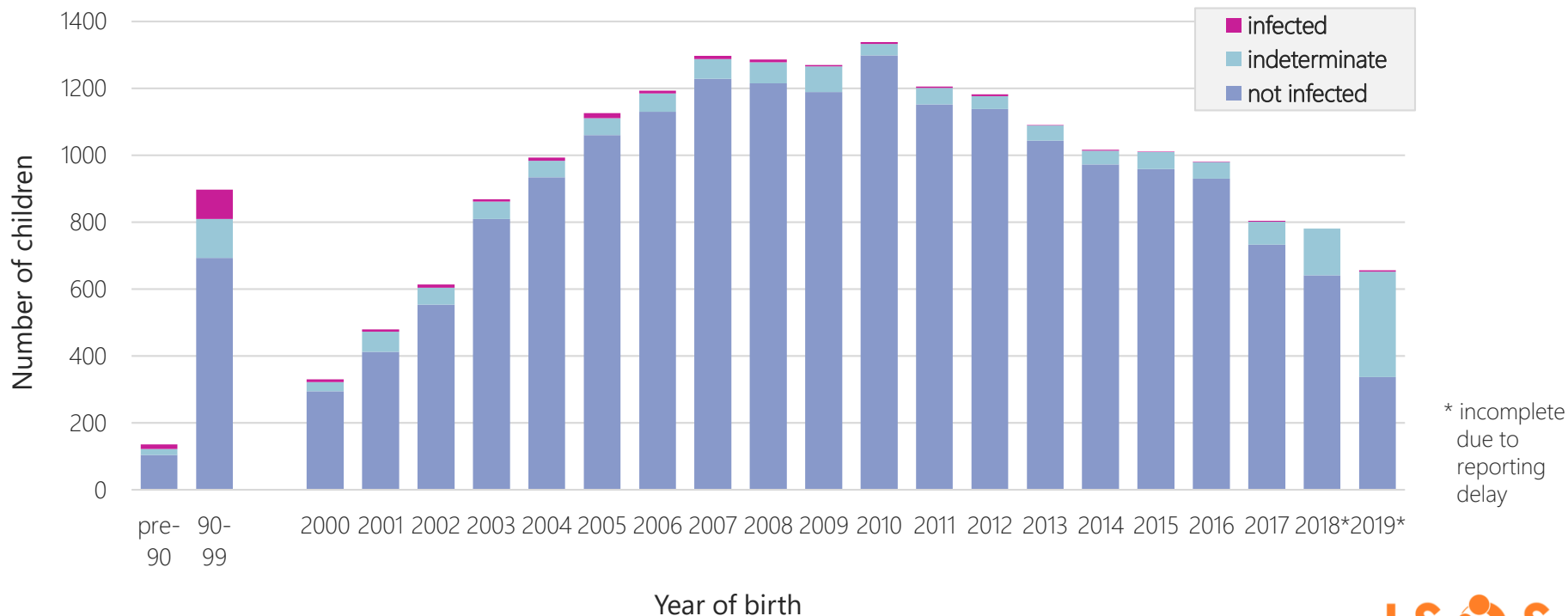
Annual data on infected children and adolescents



Transition to adult care, life-long ART and HIV

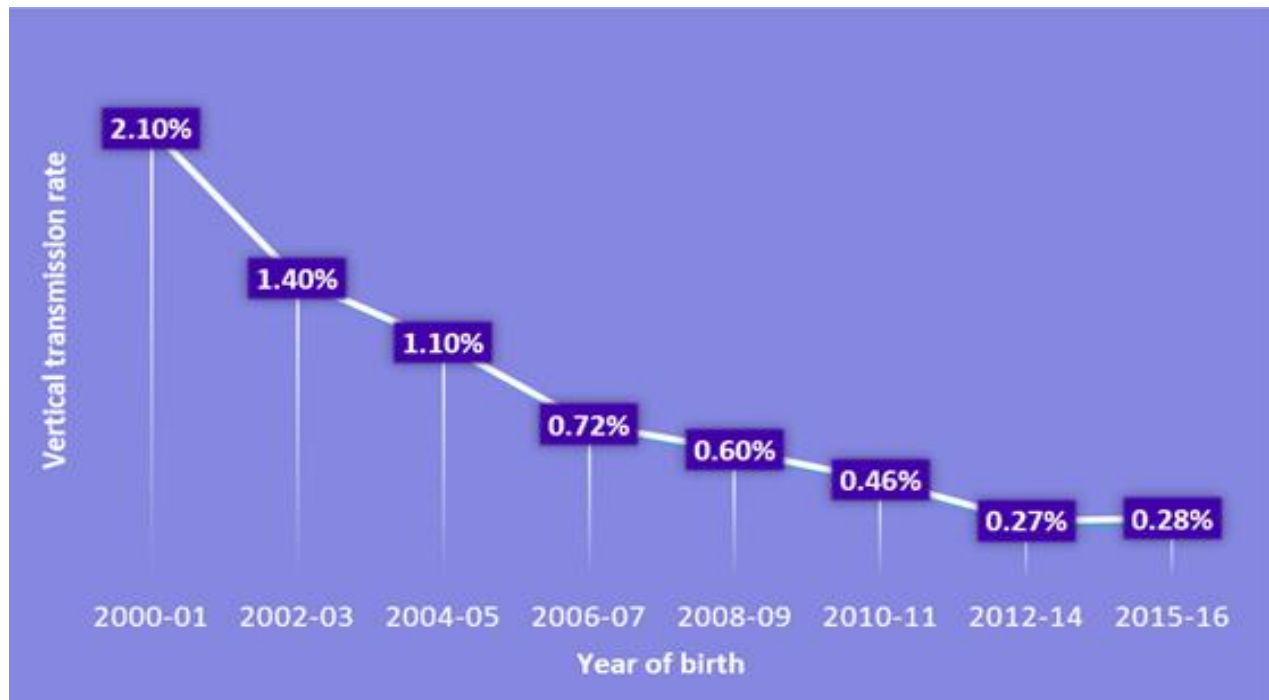


# Infection status of children born to diagnosed women



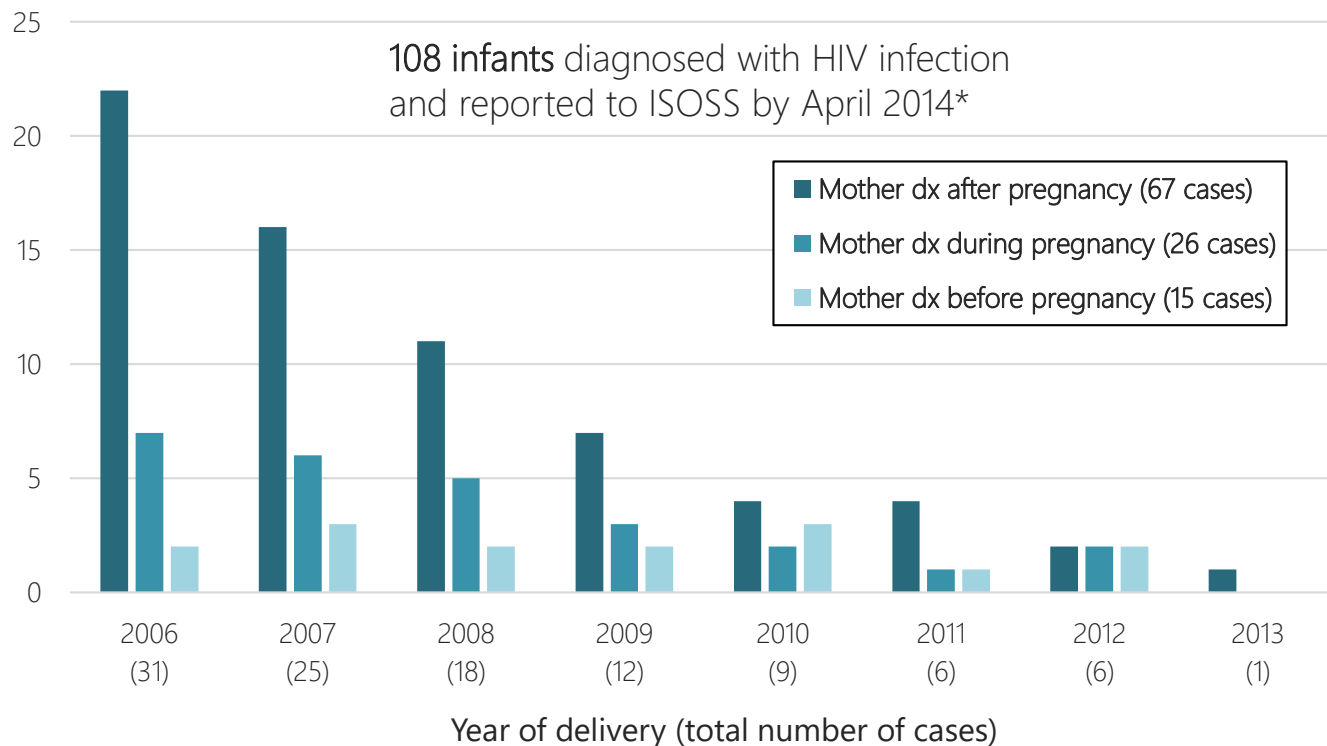
UK births reported to ISOSS by June 2020

## Vertical transmission in UK/Ireland, 2000-2016



Data for 2000-11 from Townsend *et al.* AIDS 2014; data for 2012-14 from Peters *et al.* CID 2016; data for 2015-16 from Peters *et al.* HIV Drug Therapy Glasgow 2018

## Perinatal HIV transmission audit: UK births 2006-2013



62% of transmissions were in infants born to women *undiagnosed* by time of delivery

\* 25 further cases reported since April 2014

## Recent publications

### Surveillance of Congenital Anomalies After Exposure to Raltegravir or Elvitegravir During Pregnancy in the United Kingdom and Ireland, 2008–2018

*Virginia Rasi, MD, Mario Cortina-Borja, PhD, Helen Peters, MSc, Rebecca Sconza, MSc, and Claire Thorne, PhD*

### Pregnancy incidence and outcomes in women with perinatal HIV infection

Laura Byrne<sup>a</sup>, Rebecca Sconza<sup>a</sup>, Caroline Foster<sup>b</sup>, Pat A. Tookey<sup>a</sup>,  
Mario Cortina-Borja<sup>a</sup> and Claire Thorne<sup>a</sup>

### Stillbirth in Women Living With HIV Delivering in the United Kingdom and Ireland: 2007–2015

*Graziella Favarato, PhD, Claire L. Townsend, PhD, Helen Peters, MSc, Rebecca Sconza, MSc, Heather Bailey, PhD, Mario Cortina-Borja, PhD, Pat Tookey, PhD, and Claire Thorne, PhD*

### National audit of perinatal HIV infections in the UK, 2006–2013: what lessons can be learnt?

H Peters, C Thorne, PA Tookey and L Byrne

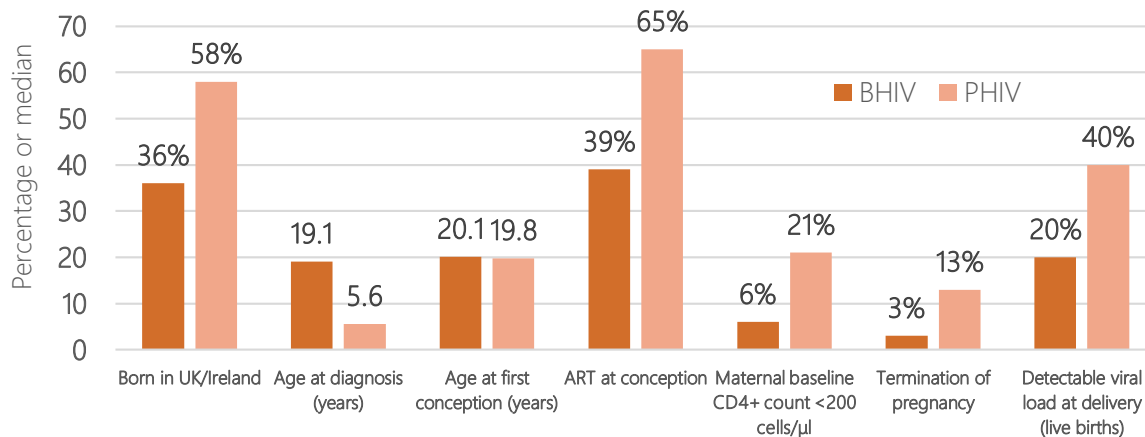
### Protease inhibitors and preterm delivery: another piece in the puzzle

Graziella Favarato<sup>a</sup>, Claire L. Townsend<sup>a</sup>, Heather Bailey<sup>a</sup>,  
Helen Peters<sup>a</sup>, Pat A. Tookey<sup>a</sup>, Graham P. Taylor<sup>b</sup> and Claire Thorne<sup>a</sup>

## Pregnancies in women with perinatal HIV (PHIV)

- Of 630 women reported to ISOSS in childhood, 45 (7%) had at least one pregnancy reported
- Pregnancy incidence rate lower in PHIV than in women of similar age in general UK population
- 70 pregnancies among 45 women with PHIV were compared with 184 pregnancies among 118 age-matched women with behaviourally-acquired HIV (BHIV)

13 per 1000  
woman-years  
*pregnancy incidence  
rate among women  
with PHIV*



Women with PHIV were 3x more likely to have detectable viral load near delivery [OR 3.22 (CI 1.22-8.48)]

For a link to full publication, visit [www.ucl.ac.uk/isoss/publications](http://www.ucl.ac.uk/isoss/publications).

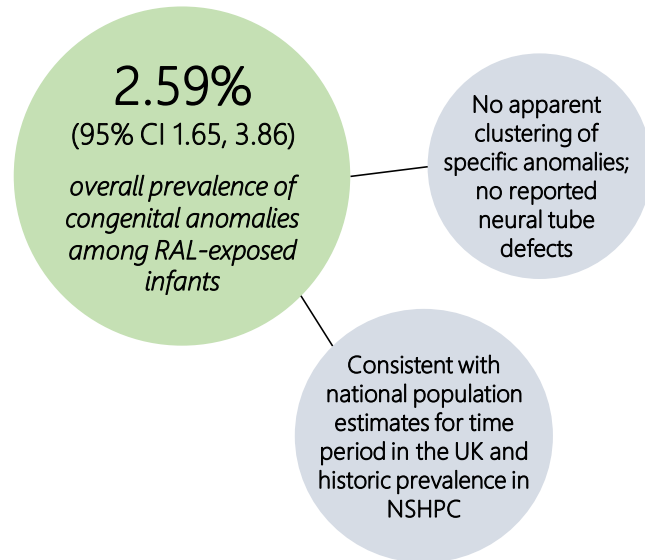
# Congenital anomalies & exposure to raltegravir or elvitegravir, 2010-2018

- No reported congenital abnormalities among 31 live-born infants exposed to EVG-based regimens
- 23 reported congenital anomalies among 886 live-born infants exposed to RAL-based regimens

Timing of first RAL exposure	N	(%)	Infants with anomaly	Prevalence of anomalies
At conception	222	(25.0%)	5	2.25% (95% CI 0.73, 5.17)
1 <sup>st</sup> trimester	40	(4.5%)	0	-
2 <sup>nd</sup> /3 <sup>rd</sup> trimester	602	(67.9%)	17	2.82% (95% CI 1.65, 4.48)
Timing unknown	22	(13.5%)	1	-
<b>Overall</b>	<b>886</b>		<b>23</b>	<b>2.59% (95% CI 1.65, 3.86)</b>

Prevalence of congenital anomalies among raltegravir-exposed infants by timing of first exposure (data source: Rasi *et al.* 2018 JAIDS)

For a link to full publication, visit [www.ucl.ac.uk/isoss/publications](http://www.ucl.ac.uk/isoss/publications).



Patient data are collected under legal permissions granted to PHE under Regulation 3 of The Health Service (Control of Patient Information) Regulations 2002 (see [www.ucl.ac.uk/isoss/governance](http://www.ucl.ac.uk/isoss/governance))

## Acknowledgements

All ISOSS respondents

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