

National Study of HIV in
NSHPC
Pregnancy and Childhood

Characteristics of children diagnosed with HIV in the UK 2000-2015

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Background

- The mother-to-child transmission rate of HIV in the UK continues to decline from 2.1% in 2000-01 to around 0.5% in 2010-11 amongst diagnosed women
- Since 2000, 1511 children have been diagnosed as HIV infected in the UK & Ireland and reported to the National Study of HIV in Pregnancy and Childhood (NSHPC)

Aim

To explore recent trends in the diagnosis and characteristics of HIV-infected children, born in the UK and abroad.

National Study of HIV in Pregnancy and Childhood

Comprehensive observational surveillance in UK and Ireland since 1990

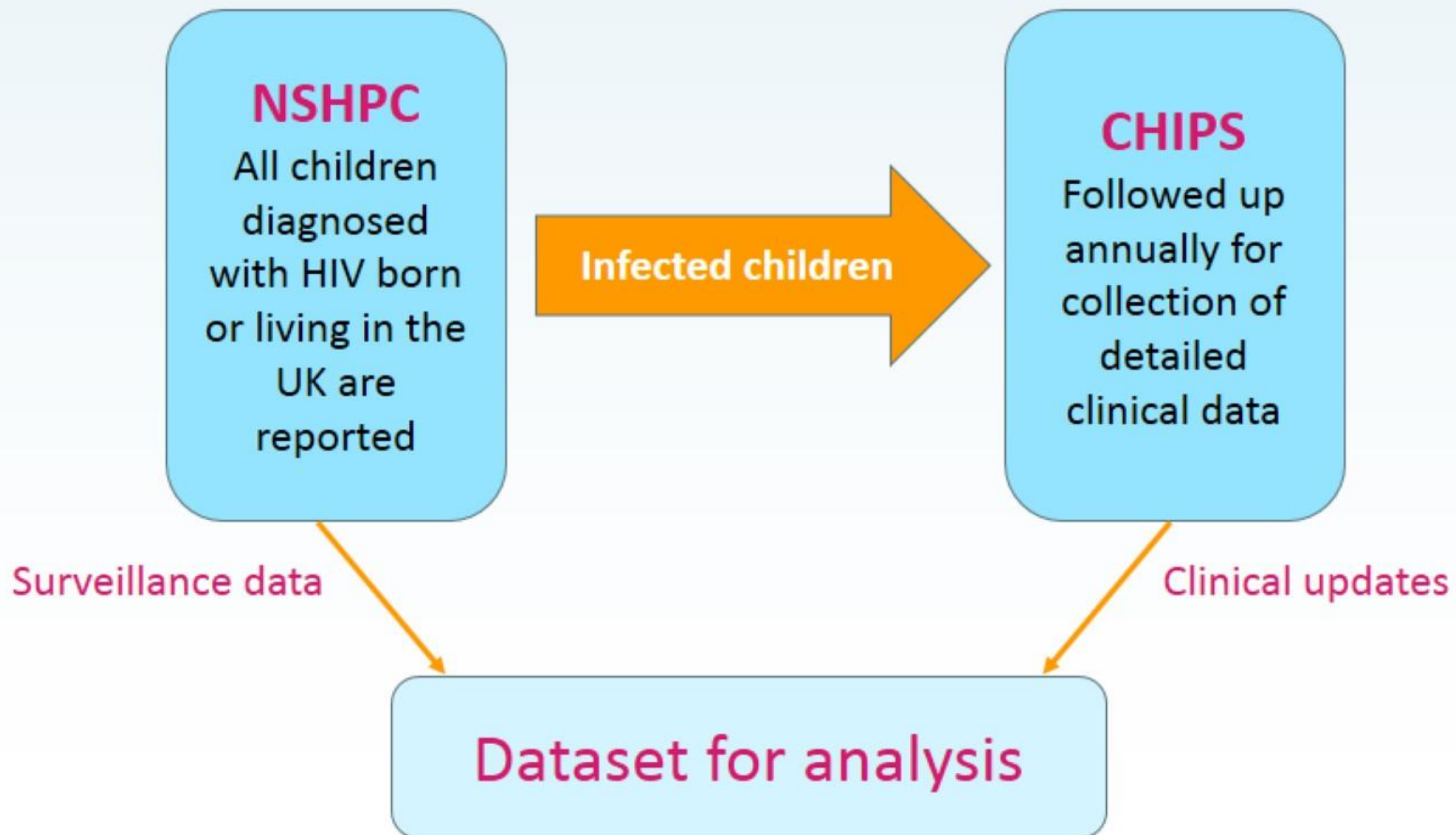
Complementary reporting schemes

- Paediatric reports, clinics and **BPSU orange card**
- Obstetric reports, **RCOG approved scheme**

No interventions, no enrolment, surveillance only

Substantial feedback to clinicians and HIV networks maximises coverage and case ascertainment (>95%)

National Study of HIV in Pregnancy and Childhood



Methods

- Analysis of 1511 children diagnosed 2000-2015, reported by the end of 2015:
 1. Children born and diagnosed in the UK (n=524)
 2. Children born abroad and diagnosed in UK (n=803)
 3. Children born abroad and diagnosed abroad (n=184)
- Data collected on infected children includes:
 - Date and country of birth
 - Timing and reason for diagnosis
 - Clinical status

Results

1511 infected children (born between 1984 and 2015)

| Characteristic | <i>n</i> | Summary statistic |
|-----------------------|----------|--------------------------------|
| Mode of acquisition | 1471 | 97% vertically infected |
| Sex | 1511 | 52% female |
| Country of birth | 1511 | 65% born abroad |
| Ethnicity | 1511 | 83% Black African |
| When mother diagnosed | 1302 | 90% after pregnancy, 6% during |

Results: Children born abroad

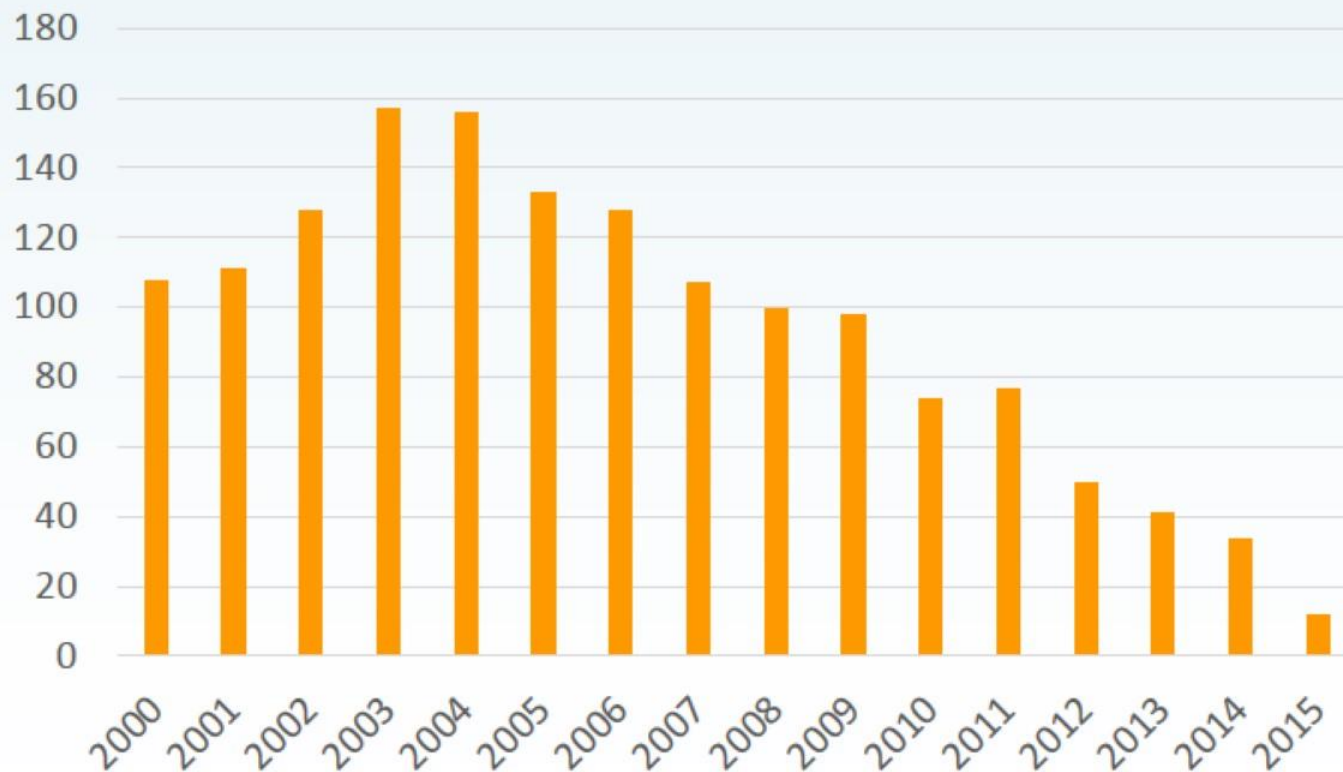
987/1511 children born abroad

| Characteristic | Diagnosed in UK (n=803) | Diagnosed abroad (n=184) |
|---------------------------------------|---|-----------------------------|
| Diagnosis yr: 2000-04 | 403 (50%) | 17 (9%) |
| 2005-09 | 290 (36%) | 74 (40%) |
| 2010-15 | 110 (14%) | 93 (51%) |
| Age at diagnosis (median) | 9yr (IQR: 6 - 12) | 8yr (IQR: 5 - 11) |
| CDC C symp. at diagnosis | 53 (7%) | 9 (5%) |
| Lag between UK arrival & diagnosis | 60% (60/565) within 12mth 19% (107/565) >3yr | - |
| Treatment experienced on arrival | - | 14/56 (23%)* |

* Data only collected from 2012

Results

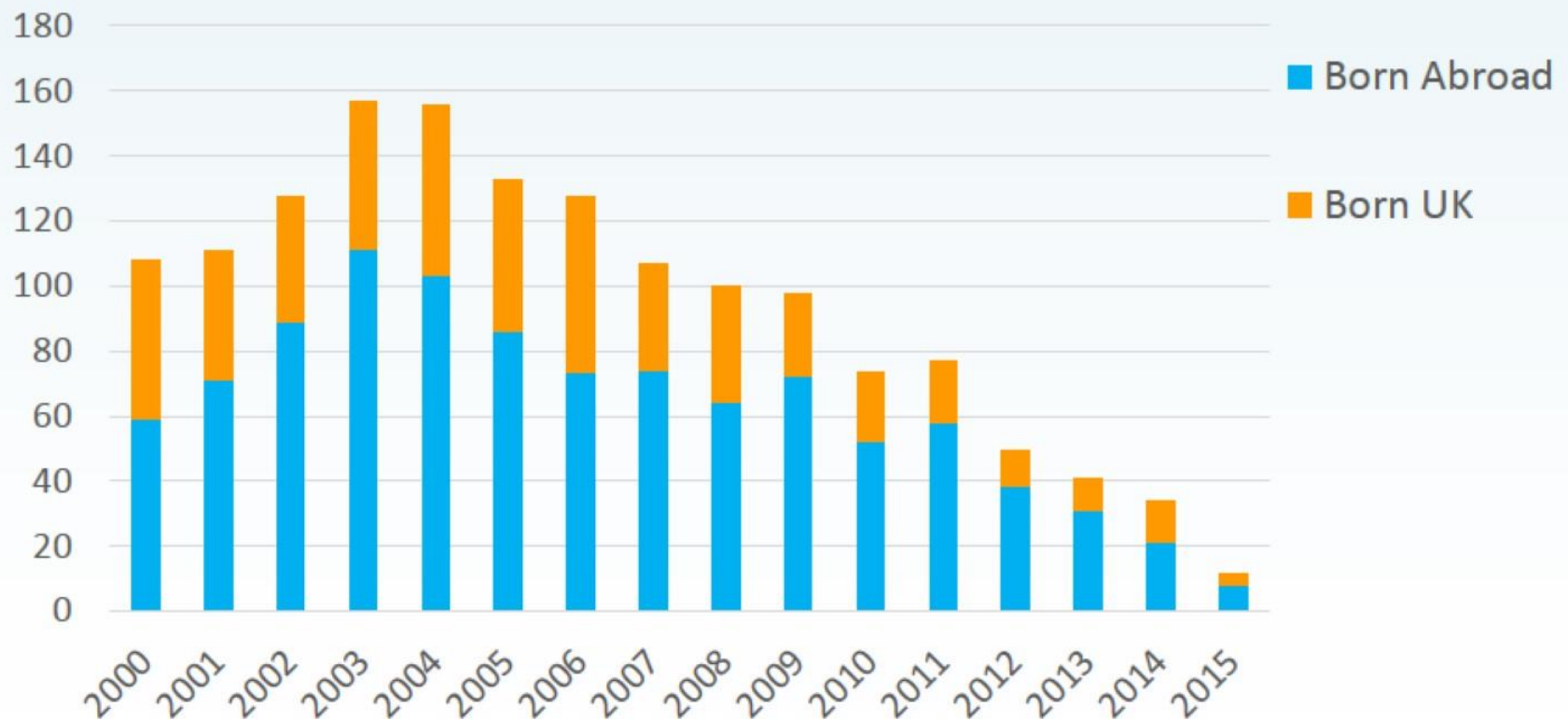
Annual paediatric diagnoses have declined over time after peaking in 2003-04, <50 diagnoses per year since 2012 ($p < 0.001$)



*Children reported to NSHPC by end December 2015, some delay in reporting for recent years

Results

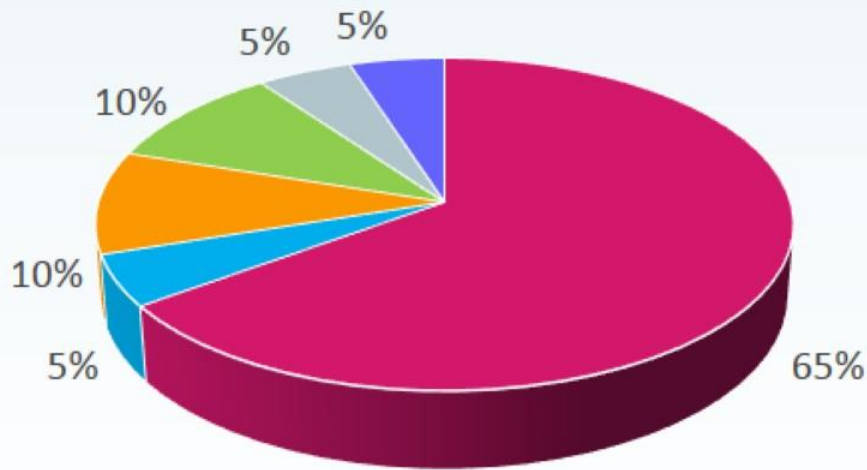
Proportion of infected children born abroad remains higher



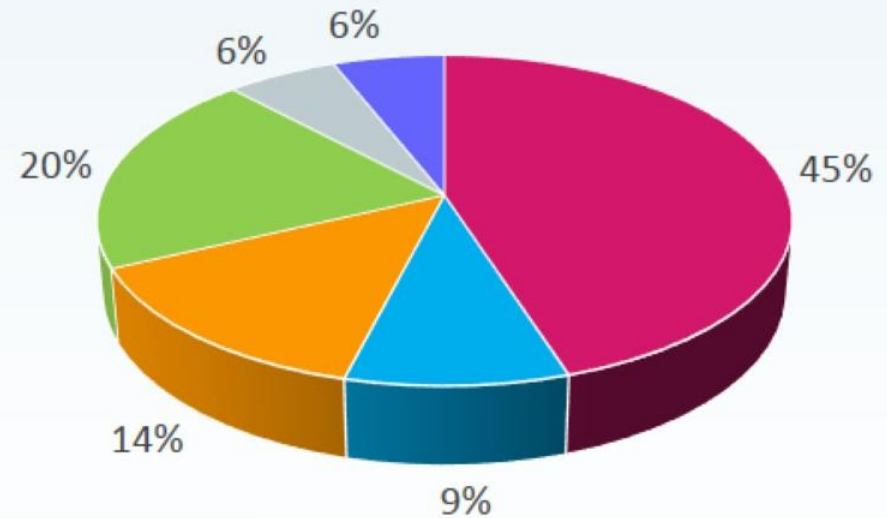
*Children reported to NSHPC by end December 2015, some delay in reporting for recent years

Results: Region of report

2000-05



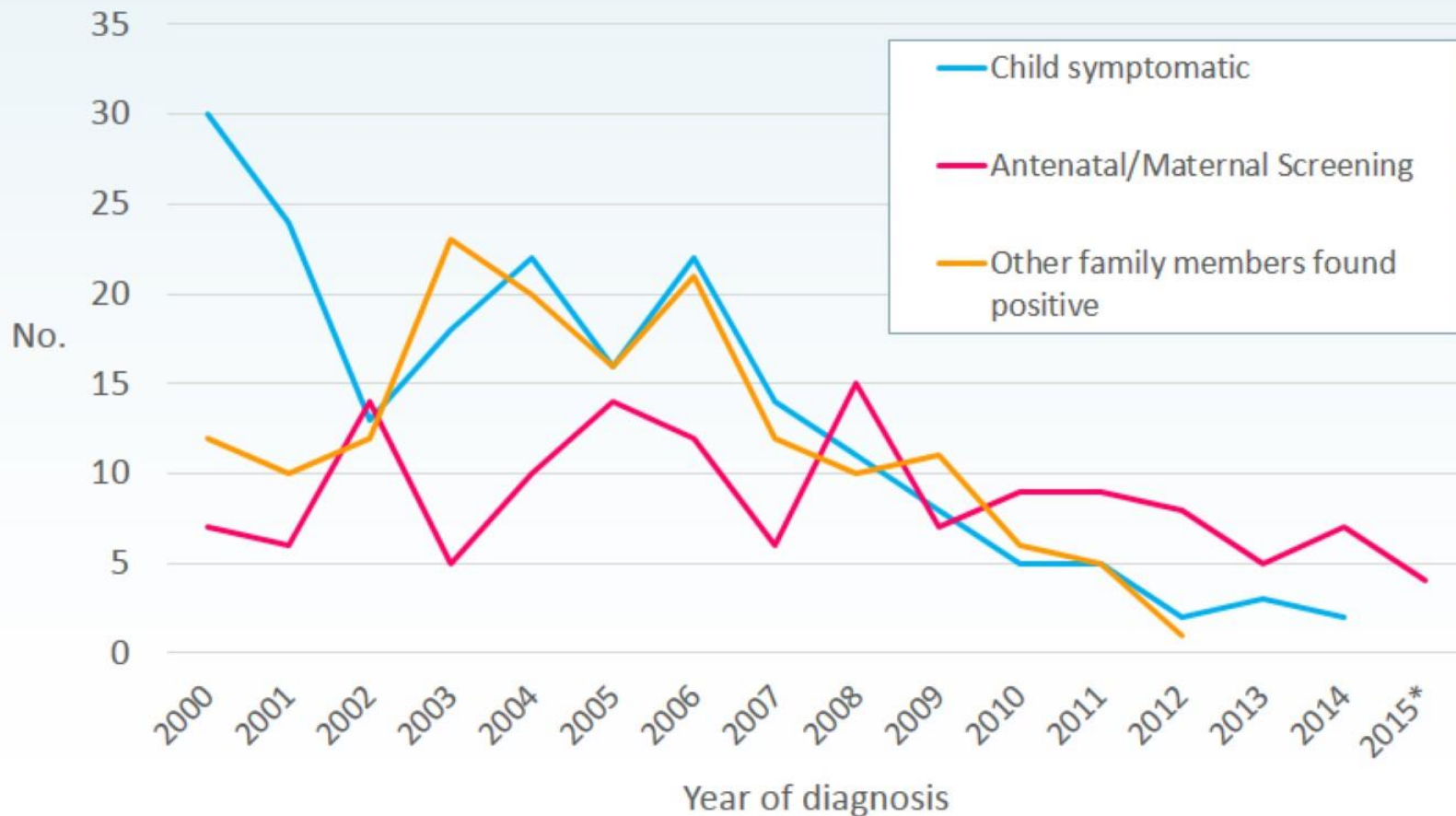
2006-15



- London
- South
- North
- Midlands
- NI, Wales, Scotland
- Ireland

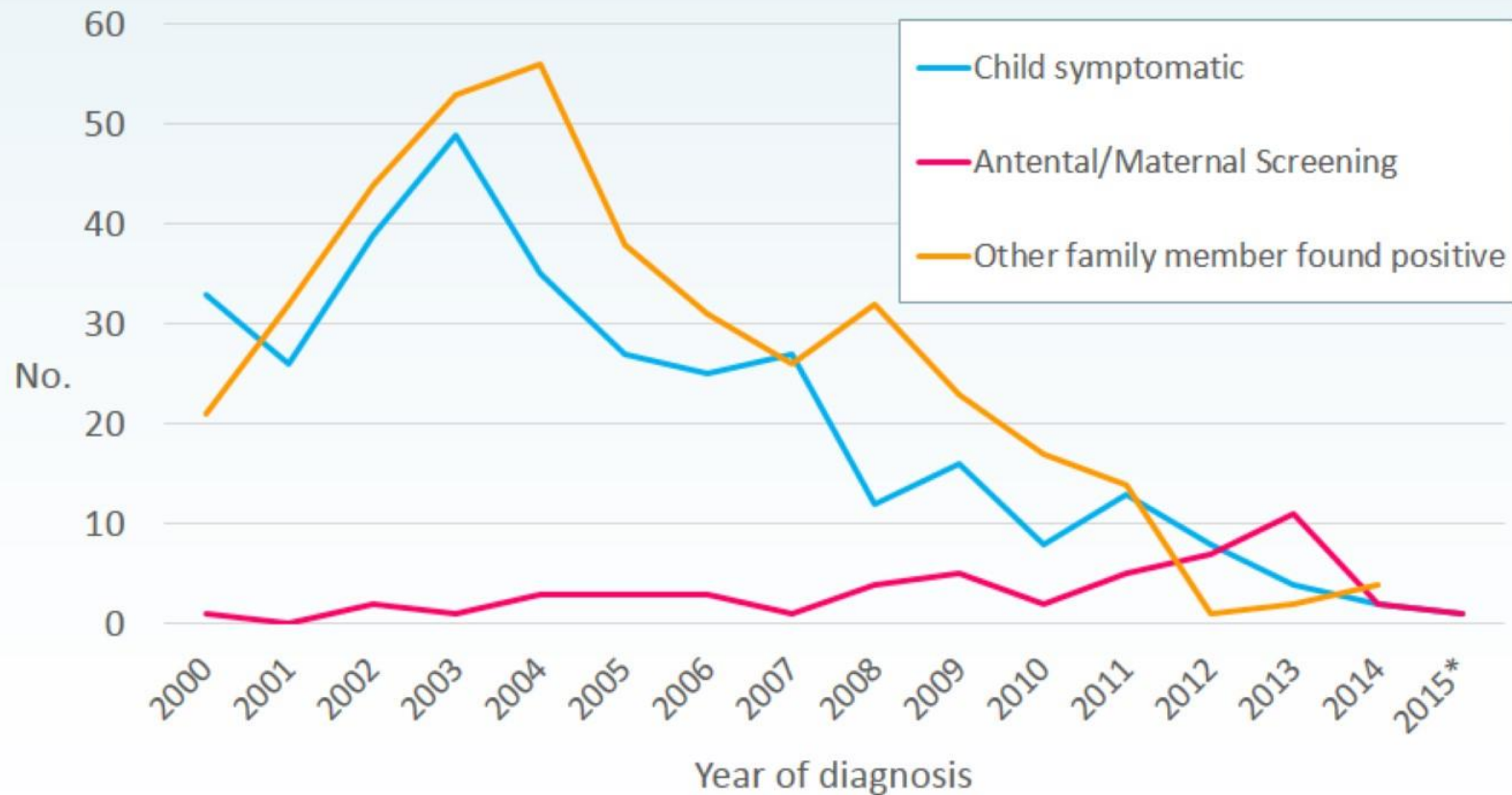
Results: Reason for diagnosis

Children born UK



Results: Reason for diagnosis

Children born abroad and diagnosed in UK



Results: Age at diagnosis

Median age of diagnosis has decreased for children born in UK and abroad

| Year of birth | Born UK | Born Abroad |
|---------------|---------------------------|---------------------------|
| 2000-04 | 10 months (IQR 0.3-3y) | 5.5 years (IQR 3-8y) |
| 2005-09 | 7 months (IQR 0.2-2y) | 4.0 years (IQR 1-6y) |
| 2010-15* | 3 months (IQR 0-0.8y) | 2.5 years (IQR 0.3-3y) |



NB: restricted to children born 2000 onwards

*Some children born in this period may still be undiagnosed/reported later

Results: CDC C Symptoms

- **11%** (170/1514) had symptoms at presentation
- Proportion of children with CDC C symptoms at presentation declined from **18%** of those diagnosed 2000-03 to **0%** since 2012 ($p < 0.001$)
- **18%** (30/170) of those with symptoms at presentation have died to date

Conclusions

- **Annual paediatric diagnoses peaked in 2003-04, with subsequent decline over time**
 - Currently 30-50 new diagnoses per year (since 2012)
- **Most new diagnoses are now in children born abroad**
 - Majority of these were diagnosed in UK 2000-2004; since 2010 almost half are diagnosed abroad
- **Median age at diagnosis decreased significantly**
 - Remains higher for children born abroad
- **Declining proportion of children presenting with CDC C symptoms through the period**

Acknowledgements

- **Big thank you to all our respondents to the NSHPC and CHIPS!**
- Royal College of Obstetricians and Gynaecologists
- British Paediatric Surveillance Unit

Funding:

- Public Health England, National Screening Committee

NSHPC team:

- Claire Thorne, Pat Tookey, Helen Peters, Kate Francis, Rebecca Sconza, Anna Horn, Graziella Favarato

CHIPS team:

- Ali Judd, Jeannie Collins, Donna Dobson, Lynda Harper, Francesca Parrott, Claire Cook

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