

Management of pregnancies to syphilis screen-positive women in England: the current picture

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Background

- With a rise in heterosexual transmission of syphilis seen in recent years, there is a concern that rates of syphilis in pregnancy will start to increase.
- The UK Health Security Agency's Syphilis Action Plan aims to reduce the number of syphilis infections in England
- The NHS Infectious Diseases in Pregnancy Screening Programme (IDPS) supports the maternity strand of the Syphilis Action Plan
- The Integrated Screening Outcomes Surveillance Service (ISOSS), part of the NHS IDPS programme, provides the only population-level surveillance on maternal and congenital syphilis in England

Methods

- ISOSS conducts population-based surveillance of pregnant women with syphilis, HIV and hepatitis B in England
- All maternity screening teams in England submit data to ISOSS as part of the NHS IDPS programme
- Syphilis surveillance began in 2020 and covers **all pregnancies to women who screen positive for syphilis**, and **follow-up of any infants born to women requiring treatment in pregnancy**
- **In-depth case studies of congenital syphilis reports** reviewed by Clinical Expert Review Panel

Analyses on pregnancies to women who screen-positive for syphilis booking for antenatal care in 2020 in England, reported to ISOSS by 31/03/2022

Maternal demographics

906 pregnancies with a screen positive result for syphilis reported

Maternal characteristics, N=906

Ethnicity (n=901) Percentage of pregnancies

White British	34.6%
White other	32.1%
Black African	13.1%
Black Caribbean	2.8%
Asian	8.3%
Other	6.9%
Mixed	2.2%



67% of women were of white ethnicity

Region of birth (n=888)

UK	40.1%
Eastern Europe	28.0%
Rest of Europe	4.6%
Africa	12.7%
Asia	9.3%
Other	5.2%



28% of women were born in Eastern Europe

Maternal age at delivery

<25 years	19.6%
25-30 years	23.2%
30-34 years	26.5%
35-39 years	21.5%
≥40 years	9.2%



Median age at delivery was 31.5 years

Social circumstances

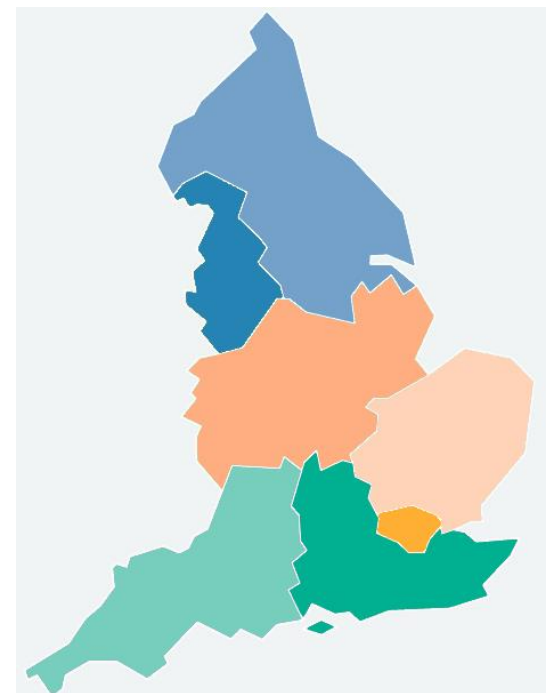
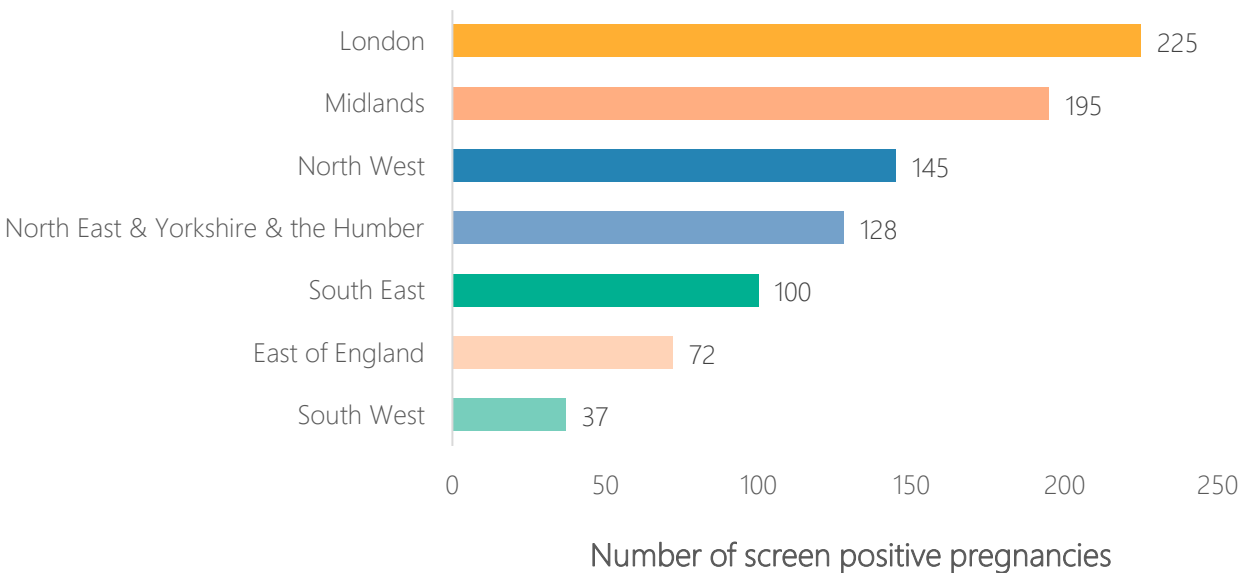
In **26% of pregnancies**, women had **adverse social circumstances reported**. These included:

- mental health issues (10.6%)
- social services involvement (9.7%)
- housing concerns (6.8%)
- intimate partner violence (5.5%)
- drug/alcohol misuse (4.2%)
- immigration problems (2.0%)

Among women born abroad, **8.0% arrived in the UK during pregnancy** and 3.7% in the year prior to conception

Translation services were required for 23.1% of women, and of these 96.6% received formal translation

Regional breakdown

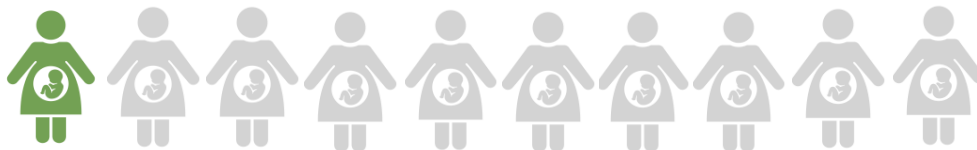


Pregnancy management

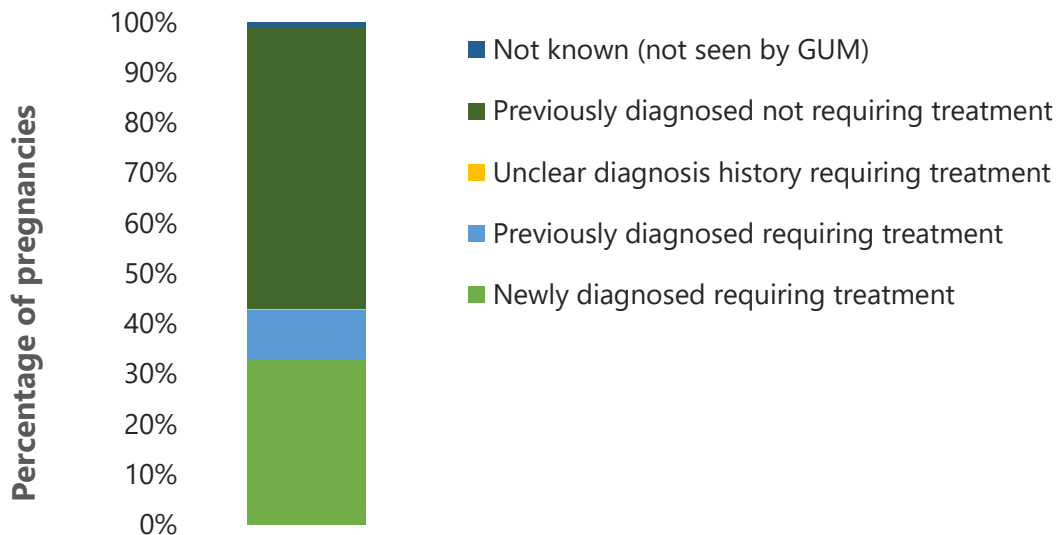
- **44.3% (401/906) of women booked <10 weeks gestation** compared to 65% in the general population



- **9.5% (86/906) booked after 20 weeks** (compared to 5.9% in general population)
 - 29 women booked >30 weeks and all required treatment
 - Five women (0.6%) presented unbooked in labour receiving no antenatal care



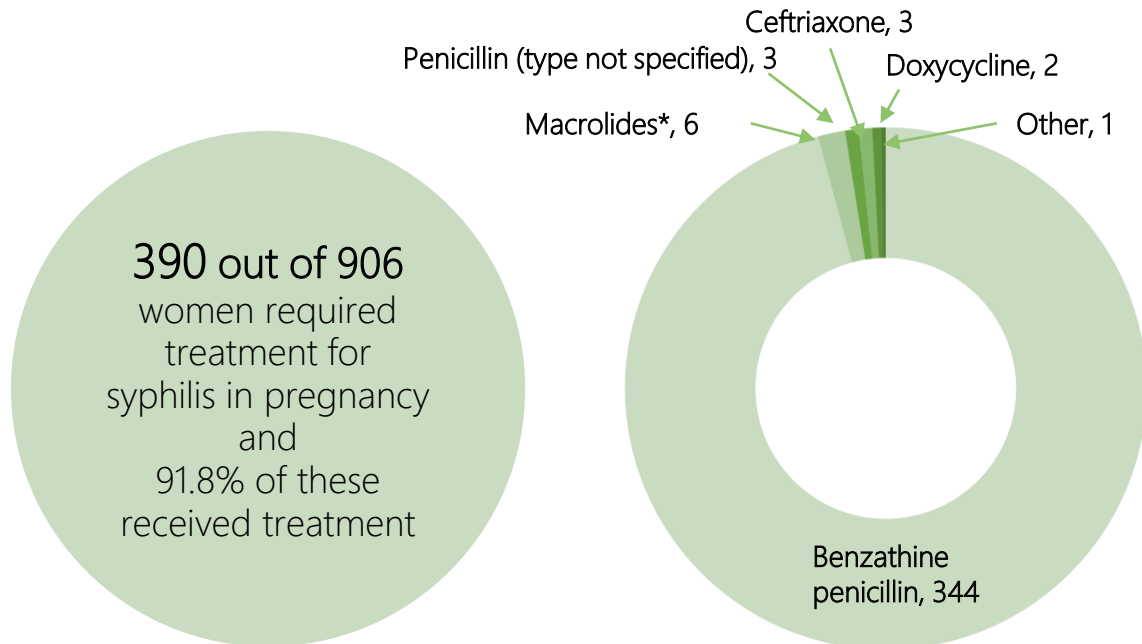
Syphilis screen positive breakdown



43%
required treatment
for syphilis in
pregnancy

Diagnosis and treatment status of 906 syphilis screen positive pregnancies booked in 2020

Treatment in pregnancy



31 women who required treatment did not receive it

- Reasons included:**
- Screened in labour
 - Delivered before referral
 - Miscarriage/TOP before referral
 - Declined treatment
 - Disengaged with care

* Macrolides were removed from BASHH guidelines as a treatment option for syphilis in pregnancy in 2019

Time to treatment

Over half of women (186/359) were **treated within 2 weeks of their first positive result** in pregnancy

14.0% (51 women) were treated **>6 weeks after their first positive result**

Where a reason for delay was reported*, these included:

- Disengagement with healthcare services (15)
- Delay in communication of results by laboratory (7)
- Women gone abroad during pregnancy (6)
- Women difficult to contact (3)
- Women initially declined treatment (2)



**It is recognised that the COVID-19 pandemic may have contributed to delays to treatment in some cases.*

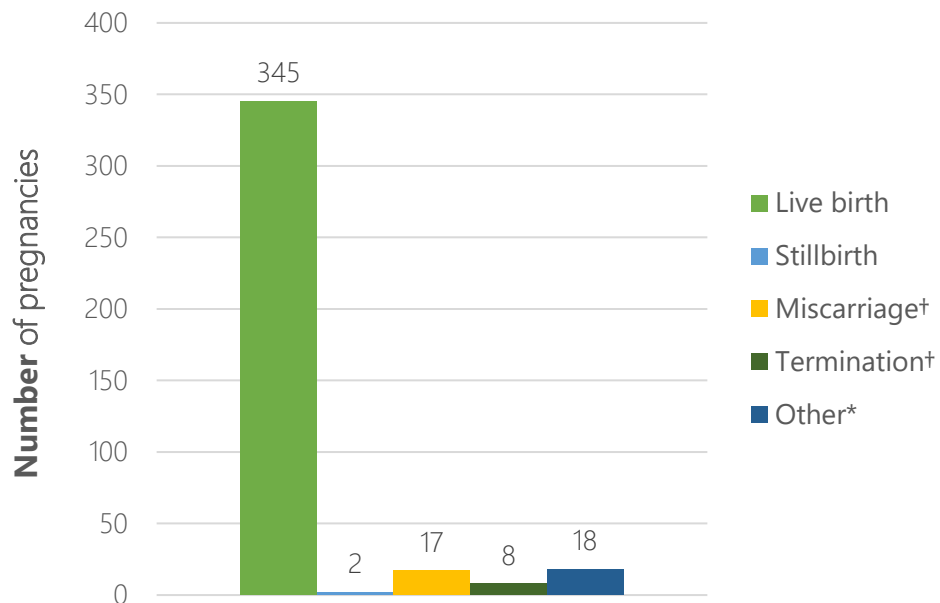
Retreatment

There were **18 women (4.6%) who were retreated in pregnancy**. Reasons for retreatment were:

- 4 women had no reduction in serology result for RPR
- 9 women were thought to have been reinfected
- 5 women did not complete their initial treatment plan and had to restart treatment later in pregnancy



Pregnancy outcomes



Pregnancy outcomes among women who required treatment, N=390

10.0% of infants were born preterm

16.7% of infants were admitted to the neonatal unit

5 infants with confirmed congenital syphilis

* includes women lost to follow-up and gone abroad

† only known where woman has booked for antenatal care an doesn't reflect overall rate of pregnancy loss where syphilis is a complicating factor

Conclusions

- The first year of national maternity syphilis surveillance showed that **two-fifths** of women who screen positive for syphilis in pregnancy **require treatment**
- The **majority** of these women were **correctly treated with benzathine penicillin** during pregnancy
- Issues with treatment in pregnancy included incorrect use of macrolides, late booking or being unbooked in pregnancy and disengagement with clinical care
- Findings demonstrate the need for ongoing surveillance to **monitor trends and clinical management** to best inform national guidelines, including BASHH
- Alongside core metrics, ISOSS will continue to monitor social circumstances to further support NHS England work on **inequalities**

Acknowledgments

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UCL are the commissioned data processors for NHS England's Infectious Diseases in Pregnancy Screening (IDPS) Programme who are the data controllers and owners

For any queries, please get in touch: helen.peters@ucl.ac.uk

More information on ISOSS: www.ucl.ac.uk/isoss

The ISOSS syphilis report for 2022 can be found on gov.uk

